



## Ohio STEM Committee Meeting Minutes

October 21, 2024

9:00 a.m. – 11:10 a.m.

### Midmark Corporation

60 Vista Drive, Versailles, Ohio 45380

#### Committee Members Present:

**Dr. Tom Schwieterman, M.D.**, Vice President of Clinical Affairs and Chief Medical Officer, Midmark Corporation, STEM Committee Chair, appointed by the Ohio State Senate  
**Andrew L. Aichele**, Vice President of Education, COSI, appointed by the Governor  
**William Ashburn**, Workforce Project Manager, Governor's Office of Workforce Transformation, Designee for the Director of Development  
**Dr. Krista Maxson, Ph.D.**, Associate Vice Chancellor, P-16 Initiatives, Ohio Department of Higher Education, Designee for the Chancellor of the Department of Higher Education  
**Jeremy Varner**, Deputy Director, Division of Career-Technical Education and Workforce, Ohio Department of Education & Workforce, Designee for Director of the Ohio Department of Education & Workforce  
**Jeff Polesovsky**, Vice President of Public Policy, Columbus Partnership, appointed by the Speaker of the Ohio House of Representatives

#### Committee Members Absent:

#### Ohio Department of Education & Workforce Present:

**Mary Ellen Dobransky**, Associate Administrator of Innovative Approaches to Teaching and Learning  
**Dr. Sarah Redick, Ph.D.**, STEM Education Program Specialist  
**Jenny Russell**, STEM Program Administrator 1

#### Ohio STEM Learning Network (OSLN) Present:

**Kelly Gaier Evans**, Director  
**Sandy Guinto**, STEM Relationship Manager

#### Others Present:

**Aaron Guggenbiller**, Midmark Corporation, West Central Ohio Manufacturing Partnership  
**David Harmon**, Superintendent, Versailles Exempted Village Schools  
**Adam Miller**, STEM teacher, Versailles Middle and High Schools

#### Ohio Department of Education & Workforce Staff Recording Meeting Minutes:

**Jenny Russell**, STEM Program Administrator 1

#### Opening:

Dr. Tom Schwieterman called the meeting to order at 9:08 a.m.

#### Welcome and Introductions

Dr. Tom Schwieterman welcomed Committee members, DEW/OSLN staff, and guests to the meeting and thanked them for coming all the way out to the west of the state.

## Approval of Agenda

Motion made to approve the October 21, 2024 STEM Committee meeting agenda made by Andy Aichele, seconded by Will Ashburn.  
All votes aye; none opposed. Motion approved.

## Approval of May 6 Meeting Minutes

Motion made to approve the May 6, 2024 meeting minutes made by Will Ashburn, seconded by Andy Aichele.  
All votes aye; none opposed. Motion approved.

## Approval of July 10 Meeting Minutes

Motion made to approve the July 10, 2024 meeting minutes made by Dr. Tom Schwieterman, seconded by Andy Aichele.  
All votes aye; none opposed. Motion approved.

## Partnership Spotlight

West Central Ohio Manufacturing Partnership

- Mary Ellen Dobransky introduced Aaron Guggenbiller, senior director of Human Resources at Midmark, and WCOMP board member
- WCOMP's Mission: To attract the future workforce needed for growth and expansion in manufacturing. Aaron told the Committee that we provide a network for West Central Ohio manufacturers to identify common needs and problem-solve with their partners, sharing ideas and resources to develop a skilled workforce.
- WCOMP was founded in 2019 and works with students in junior high and high school all the way up to college.
- WCOMP is working on getting away from the perception that manufacturing is dirty, heavy work.
- Programs offered by WCOMP include teacher boot camp, manufacturing camps for students (5th grade and up), and skilled trades apprenticeships.
- So far, WCOMP has granted 13 manufacturing-related scholarships to students.
- Kelly Gaier Evans mentioned that the Ohio STEM Learning Network is working on a design challenge with Ohio Manufacturers' Association (workforce development).

## School Spotlight

Versailles High School

- Versailles High School is a public school located in Darke County.
- Dr. Tom Schwieterman introduced David Harmon, district superintendent of Versailles Exempted Village Schools.
- David thanked the STEM Committee for holding its fall meeting here in Versailles and let the Committee know that Versailles Exempted Village Schools has a K-6 STEM program as well as one for grades 7-12.
- Versailles Exempted Village Schools is the fifth-best school system in Ohio based on the performance index, and David said that their success is because of partnerships, including Midmark's generous support (physical space, technology, materials) through grants through the Bocholt Foundation.
- David said that there is a deep commitment from the community as whole for our school system (levy passed with 72% support).
- He hopes that this is the start of a deeper conversation about STEM in Versailles and Ohio, and thanked the district's Board of Education for supporting and believing in STEM.
- He told the Committee that he hopes members can come over and tour the high school's new Technology Center later this afternoon (it has a woodshop, drone field, and robotics fields, and will allow additional space as the program grows). The district did not ask for taxpayer support to

build it; it was possible because of business funding, which speaks to the commitment our community has to our schools.

- David said that we don't talk a lot about test scores in our district (even though we can't ignore them, that's not the conversation we're having) – we talk about providing real-world applications for learning, and teaching problem-solving.
- David introduced Adam Miller, the STEM teacher at Versailles High School and Middle School. This is his nineteenth year in education. He spoke a little more about the program and how he has seen things transfer from “industrial arts” to STEM.
- Adam said that it's awesome having Midmark Corporation in our backyard because a team member will work with them and kids get to go on field trips there.

## Discussion Items:

### Policy & Compliance Updates

#### **Status of Schools Currently on Growth Plans**

12 of schools on growth plans (corrective action plans)

- 4 schools have had their first quarterly meeting
- 6 schools have had their second quarterly meeting
- 2 schools have had their third quarterly meeting
- We will do site visits to 2 schools this winter

Dr. Sarah Redick said ahead of third quarterly meetings DEW & OSLN are asking schools for artifact examples (examples of what they will use on their applications).

#### **CTE STEM Programs of Excellence**

Mary Ellen Dobransky said that the DEW legislative team is working on changing the language in statute. Work is still happening but we're slowing it down; the next budget is coming up and DEW is trying to determine agency and governor's priorities.

Dr. Tom Schwieterman asked where we are in the budget cycle.

Jeremy Varner said that the executive branch is in the development phase of cycle (proposals go through Office of Budget Management, then governor's office). The governor's budget usually gets released in February. Jeff Polesovsky added that February through June is when the real work happens.

### Schools Updates

#### **Update on Upcoming Initial Designation Cycle**

Dr. Sarah Redick told the Committee that schools must fill out the intent to apply form this year (it's required). After they fill out the form, DEW & OSLN meet with schools to get a feel for where they are, what supports they need, and what's next. Twelve forms have been submitted so far; schools are widely distributed throughout the state. About half of schools have engaged with the network in some way.

Ten schools are undergoing quality monitoring – not all of these schools will have a site visit; a school has to meet certain benchmarks before we use our resources for a site visit. But every school gets detailed feedback, whether or not they get a site visit.

Dr. Tom Schwieterman asked if there are any concerns for this cohort.

Mary Ellen Dobransky said that we met with one school that didn't meet the benchmarks although they said they were doing it. We gave them a couple days to submit artifacts as evidence (these artifacts are due by end of day today).

Dr. Tom Schwieterman asked how the team is feeling about the workload.

Mary Ellen Dobransky answered that it's not too bad, it's the best it's been in a few years. Dr. Sarah Redick said that all 12 schools on growth plans will get site visits.

### **STEM Designation Information Gathered from Exit Interviews**

- Mary Ellen Dobransky spoke about the information she and Kelly Gaier Evans gathered from STEM school exit interviews. It's a very small sample, still working to schedule interviews for all schools (only 6 interviews completed so far).
- Most of the schools mentioned new leadership as a reason for not seeking redesignation – some of that trickled down to teachers but not all.
- We learned that Blue Ribbon is a competing designation (federal distinction).
- Kelly Gaier Evans told the Committee that we've been thinking about what we do moving forward; we can't change statute. We're thinking through new priorities and leadership – how do we welcome hub directors to work with schools.
- Although some schools mentioned it as a support they'd like to have, we can't provide direct coaching of teachers, but OSLN has a coaching cohort (Fostering STEM).
- Dr. Tom Schwieterman said the leadership gap is important; once you "lose the head of the snake," it's hard to keep going.
- Kelly said that schools that have lost funding have not been able to get local initiatives funded; they're losing teachers and staff (a big deal in small rural schools).
- Mary Ellen said that she thinks as we move forward we'll see less of this because the folks being initially designated now have to meet higher standards. Conditions were so different when these schools received their initial designation.
- Kelly said that in the long term, it will be easier to keep designation.
- Dr. Tom acknowledged that attrition is not always a bad thing; it keeps up the quality of the program.

## **Partnership Updates**

### **STEM Committee Member Updates**

- Mary Ellen Dobransky explained that after our last STEM Committee meeting in July, we made the decision to offer a little time to Committee members to give updates about what's new, what you're working on, what would be helpful for us at DEW and OSLN as well as those on the Committee to know about
- Andy Aichele told the Committee that Paw Patrol is COSI's current feature exhibition (their cycle is to focus on early childhood in the fall, then appeal to older kids in the spring); it will be here through January. A lot of families and schools do so much in spring & summer, then parents can chill a little with their young ones in the fall when older kids are back in school.
- Ady also said that COSI is working on "the Platform" – focuses on 15 kids per grade level, cohort-based, getting kids ready & exposing them to STEM/STEAM options (there's a middle school cohort, then one for each grade in high school). Most are Columbus City Schools students. COSI works with guidance counselors and teachers to select students – they receive full college tuition (including ancillary expenses) if they stay with us in the program the whole time, thanks to corporate partner. The first 12<sup>th</sup> graders will be leaving at the end of this school year.
- COSI is also working with a lot of organizations around the statute around workforce development, especially focusing on middle school (state-wide, working with 51 library districts, 212 school districts, in all 88 counties).

- COSI has also developed the America 250 science kit, focusing on innovation in American throughout its lifetime (spirit of innovation and entrepreneurship). The kit was launched last week at the Statue of Liberty!
- Dr. Krista Maxson spoke about computer science. She said she sees our schools are asking for modules and support. The Ohio Department of Higher Education developed computer science modules and Miami University turned the modules into an amazing deep-dive website; they just posted the second set of modules for AI. A computer science course is required for Educator Preparation (Mary Ellen Dobransky can share links with everyone). Kelly Gaier Evans asked if these modules are free and Krista answered, “yes, they’re all free.”
- ODHE has awarded Teach Computer Science grants and spent the entire \$8 million allocated for the program; the list of awardees is on the web. Attrition is an issue as teachers realize how tough the content is (computer science programs are graduate-level programs with a lot of mathematical background required).
- ODHE is now working on developing computer science standards for different grade bands for teaching endorsements; no institution in Ohio currently has a license program (Pearson takes 18 months to develop a licensing exam); an interim license just passed (if you’re within one attribute shy; allows for test anxiety, etc.).
- Krista also shared that “Grow Your Own” scholarships (community/charter/nonpublic schools) have expanded at last in this budget cycle.
- ODHE’s teacher apprenticeship programs are in 9 districts and include intervention specialists.
- Kelly Gaier Evans asked if Krista has any idea when data on Teach Computer Science will come out. Krista answered that it will take time; they have to complete program.
- Jeff Polesovsky shared that a couple of years ago, Columbus was designated a workforce hub by the federal government. Columbus State Community College is leading the work in assigning curriculum; they’re calling it OCAD. They are asking questions like how are we thinking about industries that weren’t here in Ohio five years ago (semiconductors, electric vehicles, etc.) – and hoping for room for federal investment (“Innovation Station” at Columbus State).
- Will Ashburn told the Committee that late summer/fall is grant season and CTE equipment grants have been expanded. This round of high school tech internships is underway (placed just under 1000 students, which is huge growth in that program).

## Department of Education & Workforce Updates

### Partner Connections

- Mary Ellen Dobransky told the Committee that the DEW team makes it a point to make connections with as many groups working on STEM education as possible (in addition to our public/private partnership with OSLN).
- Some of the connections the DEW team has made in the past few months include the Regeneron International Science and Engineering Fair (which will be held in Columbus in May 2025), XRP – Experiential Robotics Platform, the Master Teacher Fellows program (NSF-funded), and the STEM Teacher Corps program (NSF-funded).
- The team will be visiting the Girl Scouts of Ohio’s Heartland’s new STEM learning center on November 20.
- Jeff Polesovsky mentioned that his group has helped the Girl Scouts out with funding, etc., and Mary Ellen told him that if he would like to join the DEW tour, we would love for him to come.
- In October, Dr. Sarah Redick and Jenny Russell visited Earth Heart Farms for their fall field days. Mary Ellen Dobransky explained that the founders are the fourth generation owning this land in Ottawa County, and it’s their dream to give it back. They believe it belongs to the community. They’re doing a fantastic job of engaging the local community in STEM learning.
- The team has met several times with the Federal Reserve Bank of Cleveland, and Mary Ellen reminded the Committee that finance is a STEM career. The Fed has all kinds of programs and resources for teachers and students.

- Mary Ellen Dobransky added that we are also working with iCode and plan to connect them with the Girl Scouts (coding is a badge).

#### Upcoming Conferences

- Dr. Sarah Redick will be presenting two sessions at the National Science Teaching Association next month, one with one of our STEM schools; the other is an extension of our Zero Barriers in STEM work (the formal partnership with the Smithsonian has ended, but we are still working on this).
- Mary Ellen Dobransky will be presenting a session at the National Consortium of Secondary STEM Schools conference on school/community partnerships next month.
- Dr. Sarah Redick will be presenting a session at OCALICON online in November (this is the premier autism and disabilities conference)
- At the Ohio Educational Technology Conference in February, our team will be partnering with DEW's Office of Exceptional Children to present a session about how assistive technology can be used for design thinking & STEM (how students can participate in design challenges, etc.),

#### Interoffice Collaboration

- In September, Dr. Sarah Redick attended ODHE's Educator Shortage Roundtable meeting at Edison Community College.
- Dr. Sarah Redick visited the Great Circle Earthworks with DEW's science and social studies teams in September to explore space-based learning and discuss helping communities make connections to buildings and outdoor spaces.

### Ohio STEM Learning Network Updates

#### Design Challenge Highlights and FY26 Challenge

- Sandy Guinto told the Committee that the partner for OSLN's design challenge this year is StarLab (same partner as last year). This year's challenge is developing space stations (3 private – one at OSU). The design challenge is a way of helping teachers into design thinking – we always focus on an authentic problem (vetted by industry). We have 113 teachers so far – goal is 200, last year was 126. Kelly Gaier Evans explained that they do it by grade band so there are 1-2 teachers per school (103 schools).
- This is important because we have a lot of aerospace industry going on right here in Ohio.
- Design challenge participants get links to NASA folks (Expertlink) and can also chat with industry experts (Spacebytes). The state showcase is on March 4, and you are all invited to come. Students get into the design thinking process and understand that they can see themselves in these fields; the experience helps them connect to careers).
- Sandy said that next year's design challenge will be around electric vehicles (EV) and advanced automotive manufacturing. OSLN is working right now on what our question will be. We'll be working with Rich Granger from DriveOhio, and looking for local people, too, not just NASA experts, so students can see themselves in these careers in their communities.
- We are shifting the design challenge from a one-year program to two-year engagement, which allows educators to develop long-term relationships with industry partners.
- Last year's design challenge impacted 48,000 students (with 126 educators)!

#### OSLN Classroom Grant Highlights

- OSLN awarded 248 classroom grants (in 161 school districts; 200 schools in 67 counties).
- 41% of grants were awarded to rural schools (increase from last year), 24% to suburban schools (increase), 24% to urban schools (increase), and 11% to small town schools (decrease).
- The regions with the most applicants were Central and Northwest.

#### Annual Report Highlights

- Kelly Gaier Evans gave highlights from the OSLN annual report. FY24 total impact was 695 schools; 3,182 educators; and 378,031 students reached. We focus on designation here in this Committee, but the work

goes beyond that to promote STEM education throughout the state. We are really proud of our growth – our impact has more than tripled in the past three years.

- We are targeting communities that have traditionally been underrepresented in STEM and asking what a system-wide model of STEM does for students in the community.
- Kelly emphasized that OSLN is working to create a continuum (sparking STEM, building STEM, sustaining STEM); our programs are described in our annual report (hard copies provided to Committee members).
- Kelly spoke about Ohio Teacher Academy, which advances STEM across Ohio through K-12 alignment to the STEM workforce. This year OTA partnered with Submarine Industry Base, a program of the U.S. Navy. Submarine Industry Base's goal is to revitalize the submarine industrial base and Ohio Teacher Academy's goal is to build STEM teacher leaders.
- Kelly showed a slide highlighting the numbers of OTA participants who indicated that they were knowledgeable about the manufacturing field before and after Ohio Teacher Academy, which showed significant growth.
- OSLN is working on specific, targeted supports, such as the Rural STEM Fellowship (for teachers) and Rural Innovative Leaders Institute (for administrators). Collecting pre- and post- data for these cohorts (shown on a slide) has allowed us to know where to do more for our communities of practice.
- Kelly asked – now that we have three years of data – what does it tell us? OSLN is excited about the preliminary data (19 schools were designated or redesignated with new rubric and artifacts, a reduction in absenteeism rates; students who are engaged want to be in school).
- Dr. Tom Schwieterman added that the Committee has been waiting for this data for a long time.
- Kelly Gair Evans then shared open OSLN opportunities with the Committee. Currently accepting applicants for our computer science licensure exam prep program (we recommend initial workshops to teachers first). We have for 60 and have received 57 applications so far (deadline is December 6).
- We are currently registering schools for this year's STEM design challenge; registration is closing December 12).
- Jeremy Varner said that he is excited about the work OSLN is doing.

## STEM Committee Meeting Schedule

Mary Ellen Dobransky spoke about the upcoming STEM Committee meeting schedule. The next meeting will be held on Monday, February 3 at a location yet to be determined. The May meeting will be held on Monday, May 12 at the Department of Education & Workforce in Columbus, and the summer meeting will be held on Monday, July 14 at a location yet to be determined.

## Public comments:

None

## Closing:

Dr. Tom Schwieterman closed by saying the further he goes into the STEM world, he sees so many disparate programs. But the zone is coming closer to collaborative and synergistic work – not just in designation, but in outreach to other organizations. It's all part of a much bigger effort coming together, which shows how powerful Ohio is in the national network.

## Adjournment:

Motion to adjourn the STEM Committee meeting made by Dr. Tom Schwieterman, seconded by Dr. Krista Maxson.

All votes aye; none opposed. Motion approved.

Dr. Tom Schwieterman adjourned the meeting at 11:13 a.m.



The next STEM Committee Meeting will be held on Monday, February 3, 2025, at a location yet to be determined.