



# Department of Education

Mike DeWine, Governor  
Dr. Stephanie Siddens, Interim Superintendent of Public Instruction

## Ohio STEM Committee Meeting Minutes

October 19, 2022

1:46pm – 3:34pm

**Hull Prairie Intermediate School**

25480 Hull Prairie Rd, Perrysburg, OH 43551

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### Committee Members Present:

**Dr. Tom Schwieterman**, VP of Clinical Affairs and Chief Medical Officer at Midmark Corporation, STEM Committee Chair appointed by the Ohio State Senate

**Andrew L. Aichele**, Senior Director of Engagement & Education at COSI

**Dr. Melissa Weber-Mayrer**, Ph.D., Director of the Office of Approaches to Teaching and Professional Learning at The Ohio Department of Education, Designee for the Interim Superintendent of Public Instruction

**Eric Leach**, Executive Director of the Ohio Third Frontier, Ohio Development Services Agency, Designee for the Director of Development, Deputy Director, Governor's Office of Workforce Transformation

**Jeff Polesovsky**, Vice President of Public Policy, Columbus Partnership, appointed by the Speaker of the Ohio House of Representatives

### Committee Members Absent:

**Ellen Marrison**, Content Strategist, The State Science & Technology Institute, appointed by the Governor

**Dr. Krista Maxson**, Associate Vice Chancellor, P-16 Initiatives, Ohio Department of Higher Education, Designee for the Chancellor of the Department of Higher Education

### Ohio Department of Education Present:

**Mary Ellen Dobransky**, STEM Administrator

**Janna Mino**, STEM Education Program Specialist

**Kaylyn Flanigan**, STEM Education Student Intern

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

**Kelly Gaier-Evans**, Ohio STEM Learning Network, Director

### Others Present:

**Emily Turner**, Director of Choose Ohio First, Ohio Department of Higher Education

**Christa Krohn**, Teaching Institute for Excellence in STEM (TIES)

**Sheila Ross**, Ohio Alliance of Independent STEM Schools (OAISS)

**Heather Hetterick**, Snapology of Perrysburg, Ohio

**Lonny Rivera**, North Point Educational Service Center

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

**Kaylyn Flanigan**, STEM Education Student Intern

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## Opening:

Dr. Tom Schwieterman called the meeting to order at **1:46pm**.

## Welcome and Introductions

Dr. Tom Schwieterman invited everyone to introduce themselves.

## Approval of Agenda

Motion made to approve October 19th meeting agenda made by Andrew Aichele, seconded by Dr. Melissa Weber-Mayrer.

No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayrer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

## Approval of August 11 Meeting Minutes

Motion made to approve August 11th STEM Committee meeting minutes made by Andrew Aichele, seconded by Dr. Tom Schwieterman. No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayrer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

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## Discussion Items:

### Schools Updates

Mary Ellen Dobransky refamiliarized the committee with three STEM designated schools that were using “Early College High School” in their institution’s titles without official designation. “Early College High School” is an official designation, from the Ohio Department of Higher Education, similar to the Ohio Department of Education’s STEM designation. During the Compliance Reapplication process for schools beyond five years of Designation in the 2021-2022 school year, schools agreed that they were in compliance with other statutes in Ohio Revised Code. Using “Early College High School” without being designated as such is a breach of compliance.

#### Marysville Early College High School STEM Growth Plan

Marysville Early College High School’s growth plan focuses solely on the use of “Early College High School” without the appropriate designation. The school has one year to apply for and received official “Early College High School” designation, to remove “Early College High School” from their name, or to add a disclaimer to institution branding stating that they are not an officially designated “Early College High School”.

Motion made to place Marysville Early College High School on a Corrective Action Plan made by Jeff Polesovsky, seconded by Dr. Melissa Weber-Mayrer. No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayrer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

#### Progress Update on iSTEM Geauga High School’s STEM Growth Plan

iSTEM Geauga High School has done everything possible to satisfy their STEM Corrective Action Plan’s requirement to address the “Early College” naming convention noncompliance issue. School leaders have chosen to drop “Early College High School” from their institution’s title. Social media providers have been contacted, Ohio’s school database has been updated with the amended institution name, and their website has been thoroughly updated to reflect the change. At this time, the Department recommends that iSTEM Geauga’s STEM Growth Plan be removed.

Motion made to remove iSTEM Geauga’s Corrective Action Plan made by Dr. Tom Schwieterman, seconded by Dr. Melissa Weber-Mayrer. No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayrer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

#### Progress Update on Tri-State STEM-M Early College High School’s STEM Growth Plan

Mary Ellen Dobransky reviewed the Tri-State STEM-M Early College High School has two items on their STEM Growth Plan. The first being that they did not have a letter of support from a local school district and the second that they are using “Early College High School” without appropriate designation. Receiving the letter of support is in



progress. School leaders are discussing with their governing authority whether or not they will choose to seek “Early College High School” designation. This decision will be discussed and voted on by their school board members. The Department is working closely with the school and the Ohio Department of Higher Education to support them while they make this decision.

Dr. Melissa Weber-Mayrer asked if the school provided a timeline on satisfying these action items. Mary Ellen Dobransky stated that the Department received confirmation that they are making progress on both items, but the designation decision must be addressed by the school board. Dr. Tom Schwieterman asked how long the school had to remedy the Corrective Action Plan. Mary Ellen Dobransky confirmed that school leaders have a year from July 25<sup>th</sup>, 2022 (when the STEM Committee voted to place them on the Plan).

#### Progress Update on Exit Interviews

Mary Ellen Dobransky briefed the Committee on the outcome of Exit Interviews with schools that chose not to complete the Compliance Reapplication for five additional years of designation. All schools recognize the importance of STEM and STEAM education and will continue to engage in the pedagogy. Some are considering applying as initial applicants in the future – two, potentially this spring and others in future cycles. All schools interviewed were grateful for the transparency, communication, and invitation from the Department and OSLN to share feedback. Schools were made aware of, and encouraged to continue participating in, Department and OSLN supports. The goal is to provide all schools with technical and professional support to foster STEM Education engagement.

Jeff Polesovsky asked where the schools that chose not to apply were located. Kelly Gaier Evans noted that two are in Reynoldsburg, but that these schools were consolidating and merging to a single IRN. This merger, under a single IRN, requires the school to reapply as an initial applicant. Janna Mino added that Collins Career Center, located in Lawrence County, Ohio, has a rich CTE program and the Department will continue to support the school as they are invested in the pedagogy. Janna Mino continued that the one of the other schools is located in the Akron, Ohio region, and the other in Central Ohio. Jeff Polesovsky summarized that only one of the five schools interviewed was outside of a major metropolitan area. Mary Ellen Dobransky confirmed that Collins Career Center has the community support of and interest in STEM education - the decision not to complete a Compliance Reapplication was due to timing - and will receive support from the Department and OSLN should they choose to apply again in the future.

Jeff Polesovsky stated that his interest in the location of the schools that chose not to reapply is that Ohio’s legislators may be invested in fostering STEM education and support in rural areas. Dr. Tom Schwieterman added that there seems to be a stripe of STEM or STEAM schools along the path from the Cleveland to Columbus to Cincinnati regions. Dr. Tom Schwieterman and Jeff Polesovsky shared ideas on how rural schools could be supported in a STEM journey, including mentorship. Mary Ellen Dobransky noted that the Department is working on cultivating these conversations and partnerships with schools in rural areas. Currently, the Department is working closely with COSI and other partners to develop STEM identities for schools in agricultural areas. Dr. Melissa Weber-Mayrer included that the Department’s “Future Forward Ohio” initiative includes three priorities, overcoming barriers to learning, learning acceleration, and workforce development. Continuing, Dr. Melissa Weber-Mayrer expressed hope that future workforce development conversations include the Department and the Governor’s office.

#### Progress Update on Schools Using STEM or STEAM Without Designation

Mary Ellen Dobransky reintroduced the concern regarding Ohio schools that use “STEM” or “STEAM” without official Designation by the Committee. There are currently eight open schools that this concern applies to. They have received communication from the Department, were provided supports, and invited to apply for STEM/STEAM Designation this spring. As of October 17<sup>th</sup>, 2022, none have responded to communication or registered for a Deep Dive Session. Mary Ellen Dobransky asked for the committee’s input and recommendation regarding these schools. Eric Leach suggested that the Department’s legal team reach out to the schools to discuss the matter. Members of the committee agreed. The Committee Chair, Dr. Tom Schwieterman, advocated for diligence when resolving the use of STEM or STEAM to protect the integrity of the Designation for officially designated schools. Jeff Polesovsky asked if the Department knows anything about the operation of these schools. Janna Mino confirmed that a few of the schools are community schools which, if they chose to seek designation, they would be applying for a STEM or STEAM School Equivalent Designation. Janna Mino noted that a few schools are partnered with a private STEM organization, according to their websites. Janna Mino reaffirmed that communication with these schools has been supportive and welcoming to encourage future designation applications. Melissa Weber-Mayrer asked if these schools were marketing themselves as STEM designated. Janna Mino shared that the team is not sure if the schools are falsely communicating that they are designated but are using STEM or STEAM in their institution’s official title.

Eric Leach asked for clarification about using STEM or STEAM in their title. Janna Mino noted that the Department’s legal counsel suggested that this issue be brought to the committee as it is a unique situation. Janna Mino echoed what was discussed earlier with the use of the “Early College High School” without proper designation. Use of the



term without proper designation resulted in action items. Dr. Tom Schwieterman suggested that this returns to legal counsel and that the request includes that schools provide a disclaimer that they are not officially designated. Jeff Polesovsky inquired if the Department has time to dedicate to conversations with these schools about potential business partnerships and pedagogy. Janna Mino noted that this conversation will be discussed within the Department.

#### Addendum Proposal for Schools that Wish to Modify Designation Between Prior to 5-Year Reapplication

Janna Mino reported that some currently Designated schools expressed an interest in modifying their Designation (e.g., expanding grade levels or changing from STEM to STEAM) before their 5-year reapplication. Jointly, the Department and OSLN created an Addendum Document that would provide this opportunity. This document, which aligns with the Designation Rubric, asks for the basic school information, and requires school leaders to reflect on their request including how they are satisfying the requirements for Designation for the proposed changes. This process is mutually beneficial because it provides an opportunity for a touch-base with schools during the period between designation reapplications. Dr. Tom Schwieterman asked if there were any regulations to this addendum (e.g., adding multiple grade levels). Janna Mino noted that there were not any regulations but that legal limitations with IRNs have been considered during the creation of the addendum. Dr. Tom Schwieterman offered support for this addendum document but suggested a more conservative approach in the process to approve the addendum. Mary Ellen Dobransky noted that the Department and OSLN can conduct site visits to schools submitting the addendum to ensure the adoption of the pedagogical approach and integration of partnerships is intact. Dr. Tom Schwieterman proposed that if schools are close to their 5-year reapplication, they hold off on making any changes. Janna Mino confirmed that any changes by addendum submission would be presented to the Committee. Dr. Melissa Weber-Mayer echoed concerns made by Dr. Tom Schwieterman, that adding multiple grade levels, would be best addressed during a 5-year reapplication.

Mary Ellen Dobransky suggested that the Department and OSLN continue to work on the addendum process and bring it back to the Committee at the next meeting. Dr. Tom Schwieterman suggested voting on the document template as a Committee but hold off on voting on the procedure until details have been formalized. Dr. Melissa Weber-Mayer also suggested bringing examples of addendum requests to the Committee to solidify the regulations.

Motion made to accept the Addendum Document as a form made by Dr. Tom Schwieterman, seconded by Andrew Aichele. No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

#### Additional Updates – Compliance Reapplications and Deep Dives on Quality Monitoring

Janna Mino provided an update on the cohort of STEM/STEAM Designated Schools who were initially Designated in 2018 as they are currently in their fifth year of Designation and going through the Compliance Reapplication process. Schools will complete the Compliance Reapplication agreeing that they comply with statutes of Ohio Revised Code and will commit to the Quality Monitoring process including a long form written application and a site visit. These schools have already been contacted with instructions. Compliance Reapplications have been sent and are due in April. At that time, the Department and OSLN will provide supports to assist schools with Quality Monitoring. Half of this cohort have already registered for a “Deep Dive Session,” a technical support around the STEM/STEAM Designation Rubric co-facilitated by the Department and OSLN. No schools from this cohort have indicated yet that they intent to let their Designation expire. There are twelve schools in this cohort. Similar to last year’s forty schools that completed the Compliance Application, the twelve schools in the 2018 cohort will have a shifted timeline for Quality Monitoring provided by the completion of the Compliance Reapplication.

Janna Mino reported that at the time of this meeting, fifteen schools have engaged in the Intent to Apply form on the Department’s website. Of the fifteen schools, nine have had one-on-one calls with the Department and OSLN, four were schools that applied for designation last year that did not receive Designation at that time, and one was a school that chose not to complete a Compliance Reapplication. All but one of these 15 new aspiring STEM/STEAM Schools are registered for the Deep Dive Session. Additionally, there are seven schools that did not complete the Intent to Apply Survey but registered for the Deep Dive. Janna Mino noted to the Committee that this means that the team could potentially have twenty-two schools apply for designation in the spring, perhaps more.

Jeff Polesovsky asked if committee members could attend Deep Dive sessions. Kelly Gaier Evans confirmed that she would send the invite and information to committee members. Jeff Polesovsky asked if schools attending Deep Dives were at different stages of designation. Janna Mino confirmed. Kelly Gaier Evans noted that Deep Dives offer guided walk through each domain of the Rubric. Kelly Gaier Evans noted that the August Deep Dive session had around twenty participants, September was around forty participants, and the December session has around eighty participants.



## Partnership Updates

### Department Updates

Mary Ellen Dobransky highlighted the outreach by the Department and partners to foster STEM identities in agricultural communities, including through the Learning Lunchboxes offered through COSI. Mary Ellen Dobransky shared that she, along with colleagues at the Ohio Department of Higher Education and former Ohio Representative Dr. John Patterson, who works with the US Department of Agriculture, went on a visit in September to the Center for Innovative Food Technology (CIFT) to discuss needs around distribution and innovation. CIFT is a current partner of Global Impact STEM Academy (GISA). The goal of these outreach trips is to understand how we can bring STEM education to communities and develop STEM identities with schools in underrepresented (non-metropolitan) areas of Ohio. There is an outreach trip planned in November to GISA with the same group and additional partners to continue collaboration around Agriculture and STEM Education.

### Partner Spotlight: Ohio Department of Higher Education

Krista Maxon joined to introduce Ohio Department of Higher Education colleague Emily Turner to discuss the Choose Ohio First program. One of the Ohio Department of Higher Education's goals is to have 65% of Ohioans, ages 25-64, hold a degree, certification, or post-secondary workforce credential by 2025. ODHE and partners (education, including STEM, in the K-12 spaces, business and industry, Ohio technology centers) are working diligently to achieve this goal. Emily Turner's division in ODHE is workforce alignment. Emily's team focuses on building industry, business, and companies while building talent in the workforce. Emily's team works closely with Krista Maxon's team and colleagues in Academic Affairs, financial aid, student success, and accessibility to ensure students are successful in their post-secondary endeavors. Choose Ohio First is a scholarship initiative that began in 2007 by Lt. Governor Husted. At that time, research showed that students stay within a 100-mile radius of where they attend university. The initiative was created with this research in mind, keeping students in Ohio by making Ohio colleges and universities accessible and creating a pipeline to Ohio's workforce. The initiative is a multi-year scholarship which may provide a sense of security for students by alleviating some of the financial burden of post-secondary education opportunities. ODHE provides grants to Ohio's universities and the institutions determine scholarship recipients. There are currently sixty-three participating institutions including public, private, and community institutions. Since its inception, the initiative has invested \$220 million to scholarships. Around 13,350 students will be served from 2020-2027. General Revenue funds and support from the General Assembly support these scholarships. Universities apply for the grants (maximum \$1.2 million) and then the institution chooses how to deploy the awards and in which academic areas scholarships are offered. The scholarship initiative has a priority of recruiting underrepresented groups into S.T.E.M. fields. Institutions must provide supports (e.g., emotional, social, academic) and work-based learning opportunities. The maximum amount of scholarship a degree-seeking student can receive is \$8,600 per year. The maximum amount a certificate-seeking student can receive is \$2,750 per year.

ODHE has begun working with the Ohio Department of Education and OSLN to partner K-12 STEM schools and OSLN Regional Hubs with Choose Ohio First institutions to make the path for Ohio's learners clear and create seamless transitions.

Jeff Polesovsky asked how ODHE stays in contact with recipients after degree or certification completion, referring to the statistic that 70% of Choose Ohio First recipients stay in Ohio. Emily Turner noted that the statistic was taken from Job and Family Services wage data. This data can also be facilitated by university or certificate programs. Jeff Polesovsky asked if there was a statistic about STEM K-12 who receive the Choose Ohio First scholarship. Mary Ellen Dobransky and Emily Turner noted that both departments are working collaboratively to discover the answer.

Janna Mino noted that the Department's engagement with ODHE partners to communicate with universities and certification programs to see the value of inquiry, innovation, and habits of mind in the STEM education pedagogy which is not always translated well on academic transcripts.

Audience member, Lonny Rivera, suggested leveraging business advisory councils and making connections between these groups, STEM educators, and ODHE.

### Ohio STEM Learning Network Updates

Kelly Gaier Evans introduced the Fostering STEM Institute which resulted of conversations with educational leaders during the piloting of the Quality Monitoring. This support was launched about a month ago. OSLN is continuing to listen and continuing to brainstorm the next level of support.

Kelly Gaier Evans shared OSLN's three strategies for STEM, which include growing model STEM schools, advancing STEM for all, and supporting tailored community needs. There are large areas of rural Ohio where there are no STEM schools. The Rural STEM Fellowship's goal is to build STEM identity and practice in underrepresented

regions. OSLN is preparing to launch two cohorts, one in Northwest Ohio and the other in Southeast Ohio, into this year-long fellowship focused on the theme of place-based education. Place-based education includes problem-based learning, design thinking, creating authentic problems rooted in resources of the community. One of the fellowship's goals is to build local partnerships that can support high quality STEM education. There are thirty-three cohort members from eighteen counties across thirteen counties. Thirteen members are from Northwest Ohio and twenty are in Southeast Ohio. Cohort members were identified from STEM informational sessions and OSLN Regional Hub Directors.

Kelly Gaier Evans discussed the OSLN Hub Retreat with the seven Regional Hub Directors. There were three primary goals of this retreat: to build connections, to define Hub goals and create a shared understanding of STEM education work, and to explore ideas and strategies to support STEM education.

Dr. Tom Schwieterman acknowledged the grassroots efforts of STEM education being facilitated by OSLN and the Department. Dr. Tom Schwieterman suggested that the model of metropolitan STEM schools may not fit for rural STEM schools and the lack of Designated schools in those regions shows that there is a disconnect with the model that is not resonating in these rural communities. Dr. Tom Schwieterman proposed a distinction beneath STEM and STEAM Designation for schools in underrepresented regions that are interested in the STEM pedagogy to encourage their efforts. Dr. Melissa Weber-Mayrer asked if the Hub Directors are engaging with their local ESCs. Audience member, Lonny Rivera noted that in these rural areas have few students and may have an added obstacle of understaffed districts. Continuing, Lonny Rivera stated that ESCs in these areas not only need monetary support but also require engaged and informed advisement from STEM professionals. Kelly Gaier Evans noted OSLN is engaging with the Putnam County ESC in Northwest Ohio. Audience member, Heather Hetterick, asked how OSLN was engaging with agricultural education in rural schools. Kelly Gaier Evans noted that, in Northwest Ohio, agriculture was a priority focus of the asset mapping process and OSLN is considering agricultural partners. Additionally, OSLN has an Ohio Rural Educators Program specifically focused on science and agriculture educator collaboration. Audience member, Christa Krohn, added that TIES, one of the grantees for the Future Forward Ohio ESSR grants from the Department, in collaboration with the Department, is conducting Listening Tours across the state of Ohio to better understand the STEM landscape. TIES has contacts in Northwest and Southeast Ohio business advisory councils and ESCs to create excitement and momentum in STEM.

Mary Ellen Dobransky included that the Department is fortunate to have many dedicated partners that are invested in creating real systems of support for schools and communities that may be isolated from STEM education resources and engagement.

Dr. Tom Schwieterman appreciated the collaborative and engaging dialogue of the committee and audience members.

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## Public comments:

Public comments clearly noted in above sections throughout the meeting. No additional public comments were made at this time.

## Adjournment:

Motion made by Andrew Aichele to adjourn the STEM Committee Meeting, seconded by Melissa Weber-Mayrer. No opposed. Motion approved.

*Affirmative Votes: Dr. Tom Schwieterman, Dr. Melissa Weber-Mayrer, Andrew Aichele, Eric Leach, Jeff Polesovsky*

Dr. Tom Schwieterman adjourned the meeting at **3:34pm**.

The next STEM committee meeting will be on February 10<sup>th</sup>, 2023, at Tree of Life Polaris (Columbus, Ohio). The following STEM committee meeting will be held at the Ohio Department of Education (Columbus, Ohio) on May 10<sup>th</sup>, 2023.

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