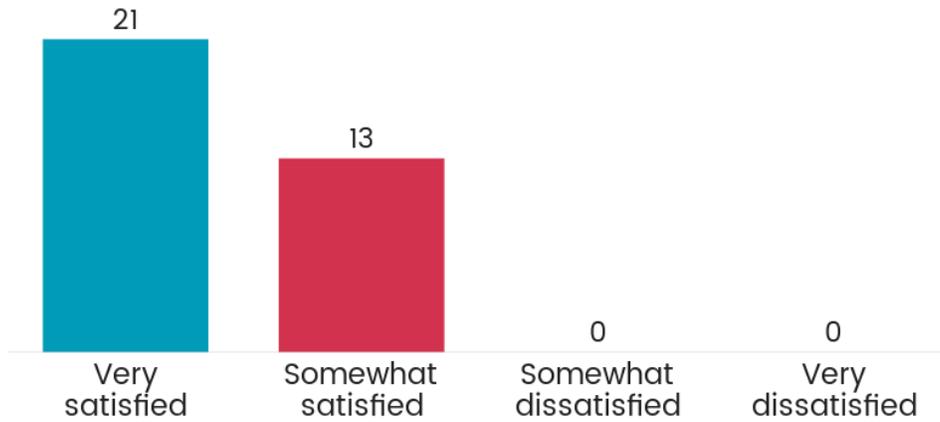


### How satisfied are you with the progress being made by the Governor's STEM Advisory Council?

Mentimeter



34

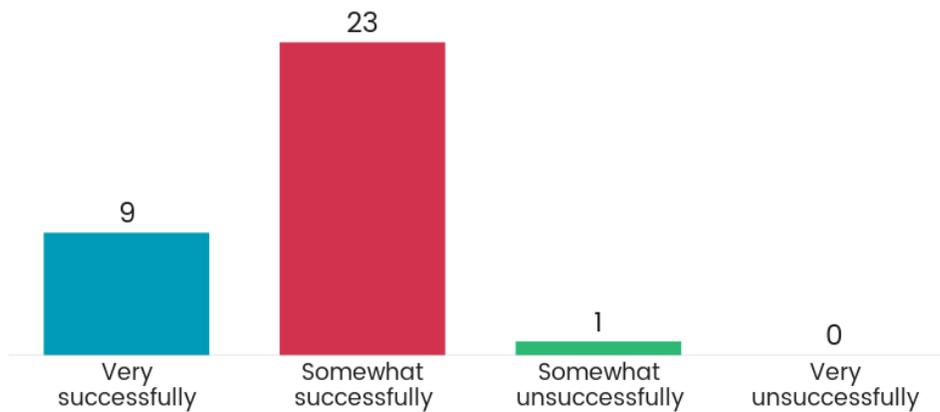
#### COMMENTS

Chris Nelson – This is a journey. We can never be satisfied. There is always more work to be done. (He said it just might be his personality.)

Deb Dunkhase – Would like to see more work done in the informal, out-of-school area. Need continuity and sustainability in the work we are doing. Just beginning that journey.

### How successfully do you feel the STEM Council has united all key stakeholders in addressing STEM?

Mentimeter



33

COMMENTS

John Carver – STEM Council members get it. However, when we talk about all the key stakeholders, in as much as want to change educational systems, we have to remember that they are owned by the school boards and the local communities. We can only make advances when we gain buy in from the school boards and the communities. We can exert outside pressures, yet unless they are convinced to do it, it won't happen. The football team never has to take Greyhound buses to competitions. Football always takes precedent.

Steve Triplet – Agrees with John Carver. In going across the country meeting with STEM groups across the nation, he has to applaud Iowa in its progress. He has not met anyone who even slightly resembles what we have done and has got to give us kudos. Others are envious.

Scott Johnson - To engage school boards, we have to use a public campaign. He is on the school board of a private school and parents are engaged. Many of the parents are in a technology career. He encourages not just engaging folks like himself but those types of trade association businesses as well. Get them involved. That is how you change things with the school boards. You need a groundswell of support first.

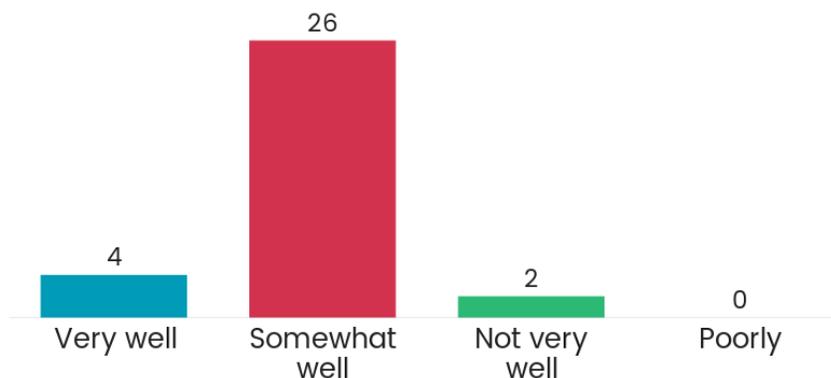
Deb Frazee – Do we have a session at the Iowa Association of School Boards Conference? (Yes.) We get a lot of traffic at our exhibit booth there. She puts a personalized letter in her folders that she distributes at this conference.

Teri Vos – They are still seeing a lot of parents who are still learning about STEM, especially in the advanced manufacturing field in their area. She would like to see parents more engaged. Students are relying more and more on their parents for career advice and guidance. They are doing a career day at Vermeer to expose area middle school students to careers in the manufacturing realm. It gives them a taste and enthusiasm for the careers Vermeer has to offer.

[Jeff - Asked Teri Vos if they could share a toolkit or manual for others to follow on how to host a career day? Teri said yes they could share their model.]

How well do you feel the STEM suite of solutions is addressing key challenges in STEM?

Mentimeter



COMMENTS

Marketa Oliver – She thinks both websites about STEM are good – IowaSTEM.gov and findSTEMIowa.org, the one demonstrated today. To avoid confusion, however, she would recommend we incorporate them both into one. Note: There is also Career Coach and Future Ready Iowa too.

Kris Kilibarda – We are really addressing the challenge of professional development in establishing a big vision and implementing the big vision.

[Jeff made note of the Computer Science effort and Equity grants.]

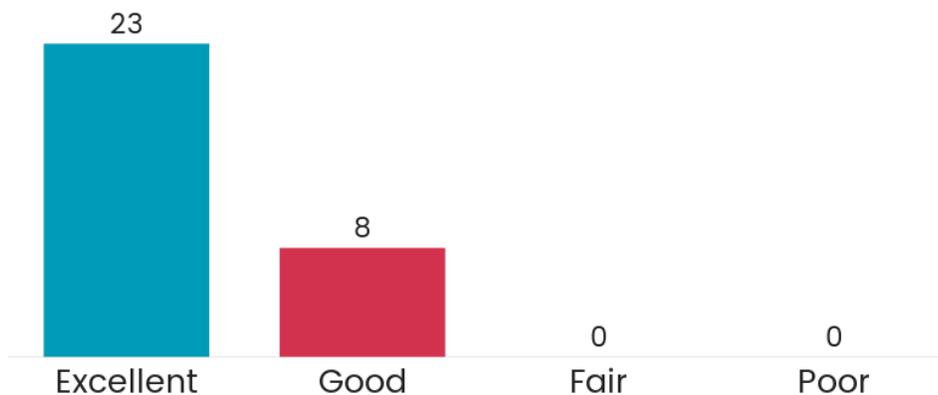
Molly Faber – Reported the STEM Equity Committee is working on an application for proposals for a local collaborative leaders – four to five people in their district. This is being done in collaborative with NAPE. There will be four webinars on micro-messaging for more inclusive and accessible STEM.

Paul Gibbins – Added that the webinars will have capacity to support 30 teams. It is designed to be accessible in every corner in the state. They hope to have a lot of interest.

Kacia Cain – She is concerned about teacher retention. What are the reasons for the loss of teachers? Does it have to do with what's happening with the system? Is it resources? Is it lack of flexibility? Can we work with administrators along those lines to present more opportunity for teachers to have flexibility?

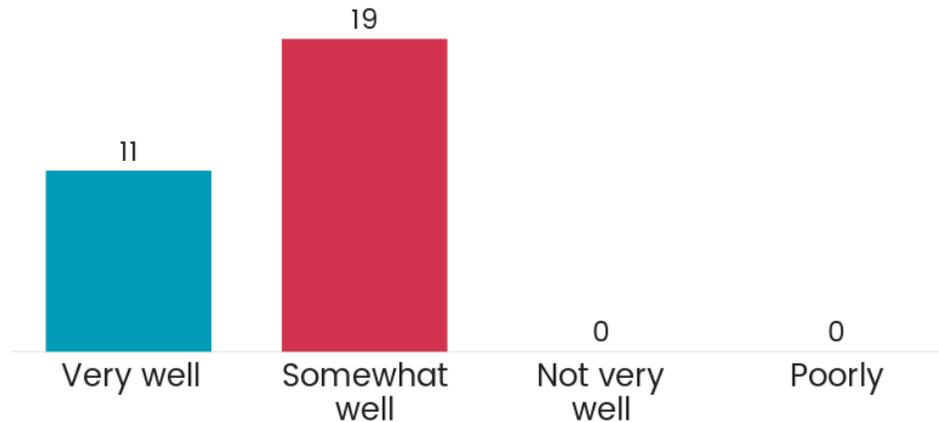
Jeff Weld – We need to look into the why behind the data relative to new teacher licensure, the decline of interest in young women and men, etc. Universities could bring dissertation candidates to us to help investigate these areas of STEM. STEM equity recommendations have been integrated in what we do – applications and such.

**Please rate the infrastructure supporting Iowa STEM – Hubs, regional boards, operations center, etc.**



### How well are communications tactics of the STEM Council keeping you informed?

Mentimeter



30

#### COMMENTS

Kacia Cain – Is there somewhere on our website to submit pics of STEM events, to highlight amazing things they are doing at a STEM event, to see what others are doing, to share positive things that are happening?

Emily Abbas – There could be an online chat, a forum/message group, blog or some type of forum on which people could share more than just pics.

Erin Heiden – This seems to focus on events that have already happened. This is not currently not one of the primary areas of the findSTEMIowa.org site. It is intended mostly for upcoming events.

John Carver – His district uses a website, a Facebook page, SNAPchat and instagrm. They are pretty transparent with what goes on. Something along those lines? This requires taking a step of faith that people are going to be respectful. We could post information on a webpage to see a scroll of what's going on.

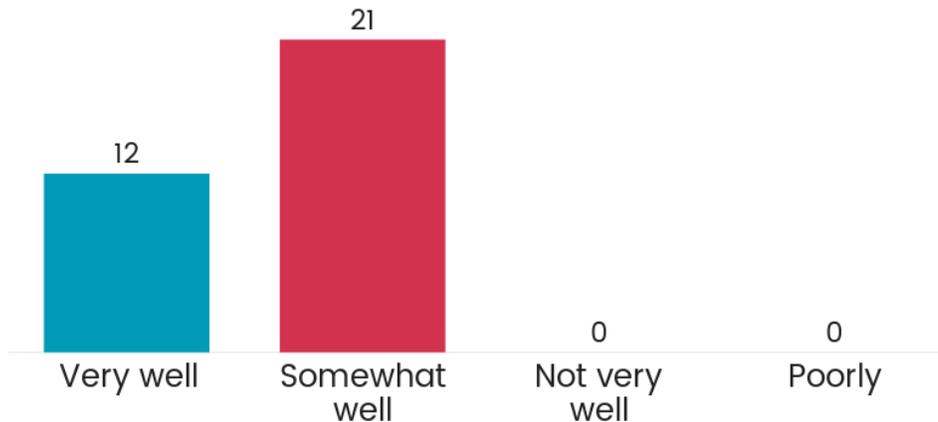
Erin Heiden – In developing the findSTEMIowa.org site, they looked at Minnesota's getSTEM Ask/Offer site. To some extent the STEM Volunteer Iowa page is looking to be the one place people can find volunteers for events.

Paul Gibbins – ISU has an email people can submit questions. It needs to be curated.

Deb Frazee – Similarly emails that come in to info@iowastem.gov get routed to the regional STEM manager.

How well has the STEM Council team supported your capacity to relate our work to your constituents?

Mentimeter



33

#### COMMENTS

Currently, Angel Mendez reported that we have been actively working on developing materials. There is the STEM Council brochure and business toolkit. She and Strategic America are currently working on an advocate guide which includes a message map for various audiences. The media kit they have also been working on has evolved to an orientation manual for new STEM Council members. It encompasses who we are, what we do. The focus is on parents this year.

Rob Denson – We should identify groups – the presidents groups, ABI, others – and presentations to them would be impactful. There are a lot of influential people in all the communities.

Beth Hochsteder – As Council members, we should all be out presenting to our professional conferences – local, regional, national. We should all as Council members be committed to do that. Jeff Weld and Angel Mendez provided her with information.

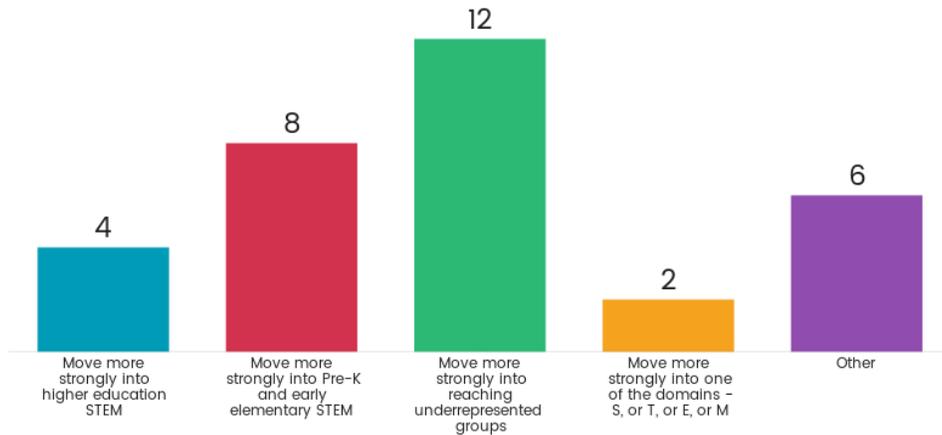
Angel Mendez – We will create a webpage where all these resources reside.

Jeff Weld – Asked Council members to inform us and relate our work. He looks forward to the toolkit.

Courtney Shaw – There are a lot of great resources and a whole library of videos on the Iowa STEM YouTube site that Council members can use to help create the STEM story.

## What new direction or horizon would you most like to see the STEM Council pursue?

Mentimeter



32

### COMMENTS

12 respondents want to move more strongly into reaching underrepresented groups.

#### What currently doing?

Paul Gibbins – Reported that we are getting more purposeful in asking our applicants for Scale-Up Programs the populations they are currently serving. We are trying to pull together key pieces of data and continue to ask questions of “who are you serving” as a conscious thought. So much of what is going on is unintentional, and people are not aware of it. It is a journey which we are just now getting started upon. It will take effort and continued dedication. We gather data and report out. At STEM festivals, the managers gather gender and demographic info. We need to be intentional in some of the marketing things we are doing and with some of the folks we are talking to. There is so much work to be done.

Molly Faber – We are working on getting some of our materials translated in different languages. In the Northwest STEM Region, they are translating the newsletter into Spanish. As we move forward, we are trying to reach other areas, and we want to provide them with the information. We need to consider where we are presenting ourselves because that matters too. We need to branch out with our boards and materials to reach more people.

Curt Simmons – The Science Center of Iowa just hosted the race exhibit last year. Out of that, they got wonderful ideas to look for unique partnerships, learn to listen in new and active ways. They found that serving and understanding diverse audiences is something our kids get more today than we do, so we should listen to our kids.

Jeff Weld – ACT data in Erin Heiden’s report showed some gains in African American and Hispanic students.

Steve Triplet – Yes, there were gains in interest. They look at characteristics and the chance of meeting benchmarks. ACT will continue to do research and hope to have more data down the road.

John Carver – As he looked around the room, he sees that we don't have a lot of representation. We have these conversations, yet they are not part of the conversation. We have a lot of statistical information, yet how are we engaging them in this conversation? We have a systems problem. It doesn't flex. It is very rigid. We need to create a think tank on what a flexible system looks like that is STEM embedded.

Jeff Weld – Acknowledged that opportunity gaps exist. The Equity Committee is looking at it.

Other categories?

Scott Johnson – Statistics about K-12 education? Higher education? Don't see statistics on types of technologies that are being used by Iowa employers and what technology is anticipated to be used by Iowa employers. We want to encourage curiosity. Are specifics targeted? No data to answer this. Like to see more investigations.

Jeff Weld – K-12/workforce alignment

McMahill – In higher education, we do not have nearly enough in teacher preparation.

Steve Triplett – Of our recent graduates 2.1 million took the ACT. On the exam, the question was asked if they are interested in teaching math or science. 1,258 out of 2.1 million who took the ACT expressed interest in teaching math or science. After five years of trend data, the number is not going up.

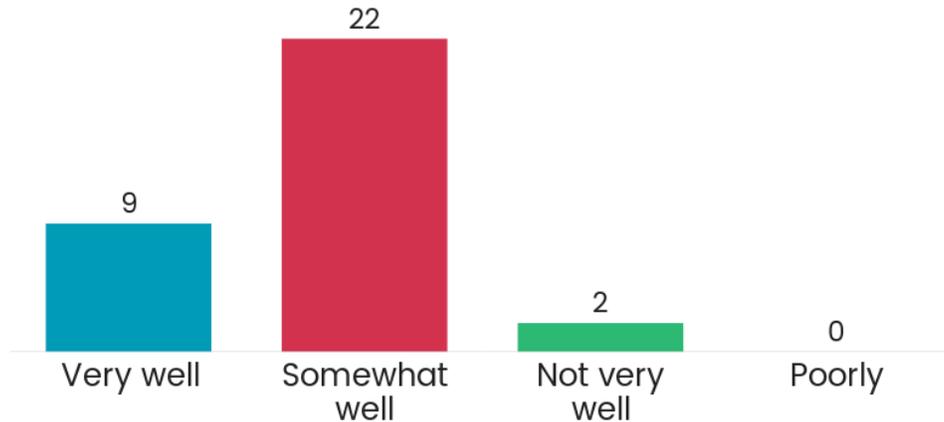
Jeff Weld – We have our work cut out for us.

Jerry Deegan – High School. The interest in STEM teaching dropped off as students got to high school. We are eating our own seed corn by having students go into STEM rather than teaching. Let them know it is a way to feed the STEM desire and that math and science teachers are part of STEM.

Melissa Moyer – There is a lot of focus on computer science and robotics. She does not see a lot of plant science and animal health. She would like to see those fields represented at activities as much as CS and robotics.

## How well-used is your time at STEM Council meetings?

Mentimeter



33

### COMMENTS

Emily Abbas – Suggests live student presentations as she finds it inspiring when students are here in the room.

Jeff Weld – Asked Council members to email suggestions to him.

Deb Frazee – asked which work groups are still active and suggested we invite new Council members to get involved with active work groups.

Jeff Weld – indicated the Arts, Equity, Active Learning Community, Computer Science and Agriculture Work Groups are all currently active.