



Women *in* **STEM**

Science, Technology, Engineering, & Mathematics

2017 Evaluation Report

November 2017

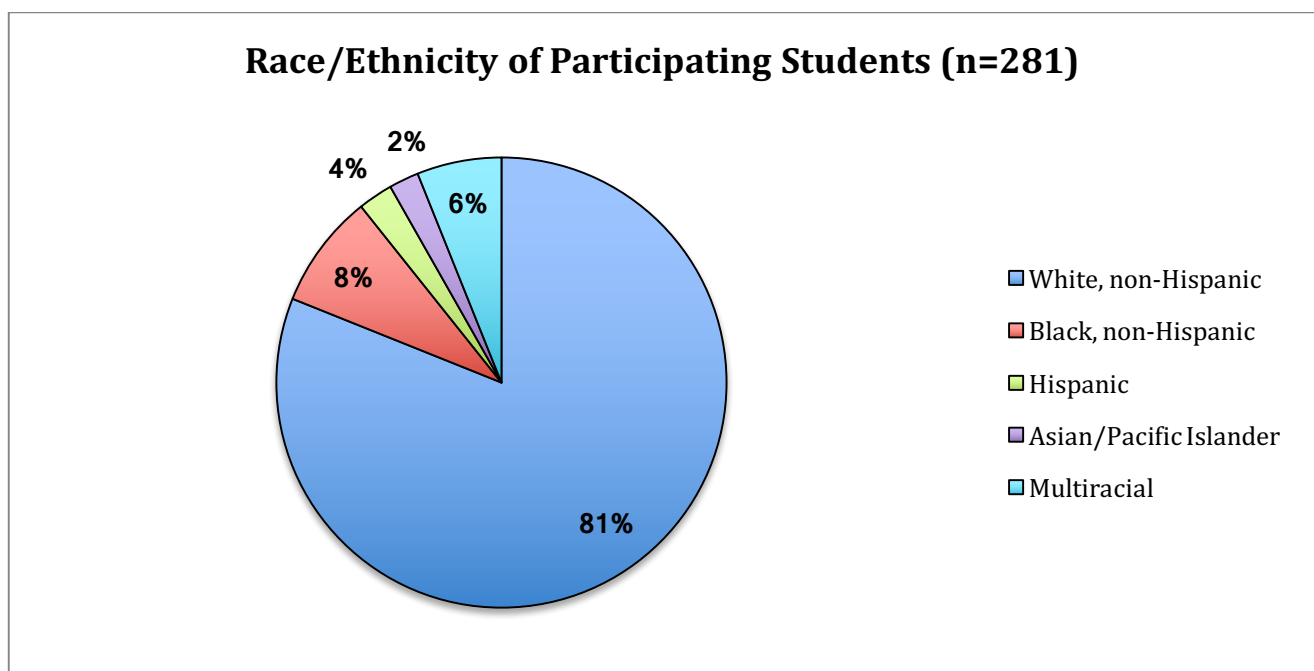
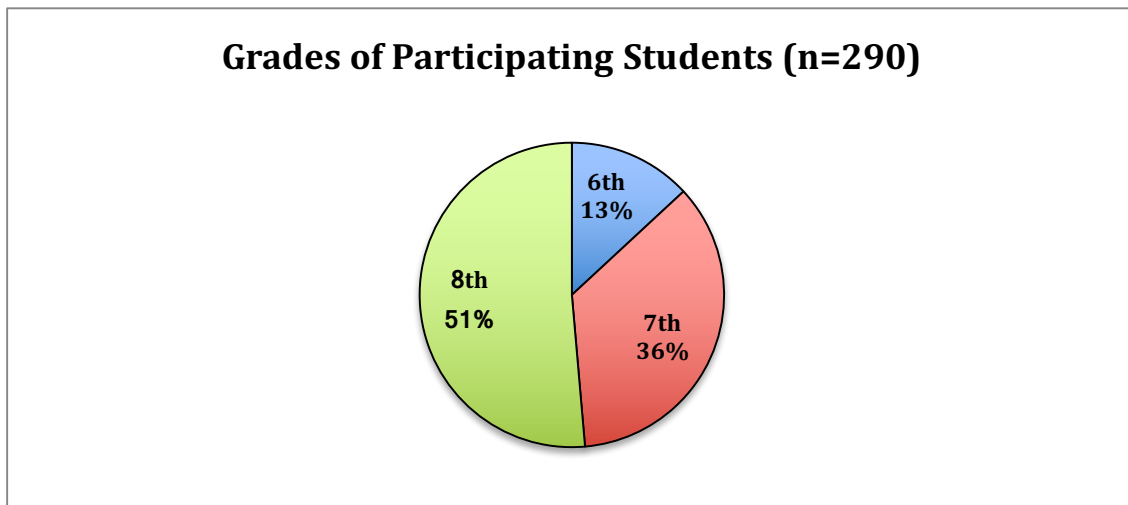


This report provides a summary of the activities and findings regarding the evaluation of the 2017 Women in STEM event. The event was held on October 31, 2017 at Bowling Green State University. This report summarizes the following information:

- Event attendance
- Event activities
- The quality of the event
- The impact of the event
- Recommendations for next year

Event Attendance

A total of 418 people attended the event, including 39 chaperones/teachers, 78 session presenters, 11 staff/volunteers/guests, and 290 students. The figures below illustrate the distribution of the participating students who completed the evaluation and identified their grade level and race/ethnicity. The majority of the girls were in 8th grade and identified as “white, non-Hispanic”.



Students from 18 different schools in northwest Ohio attended the event. Approximately two chaperones from each school attended with the students. The box below shows the schools that participated in the 2017 event.

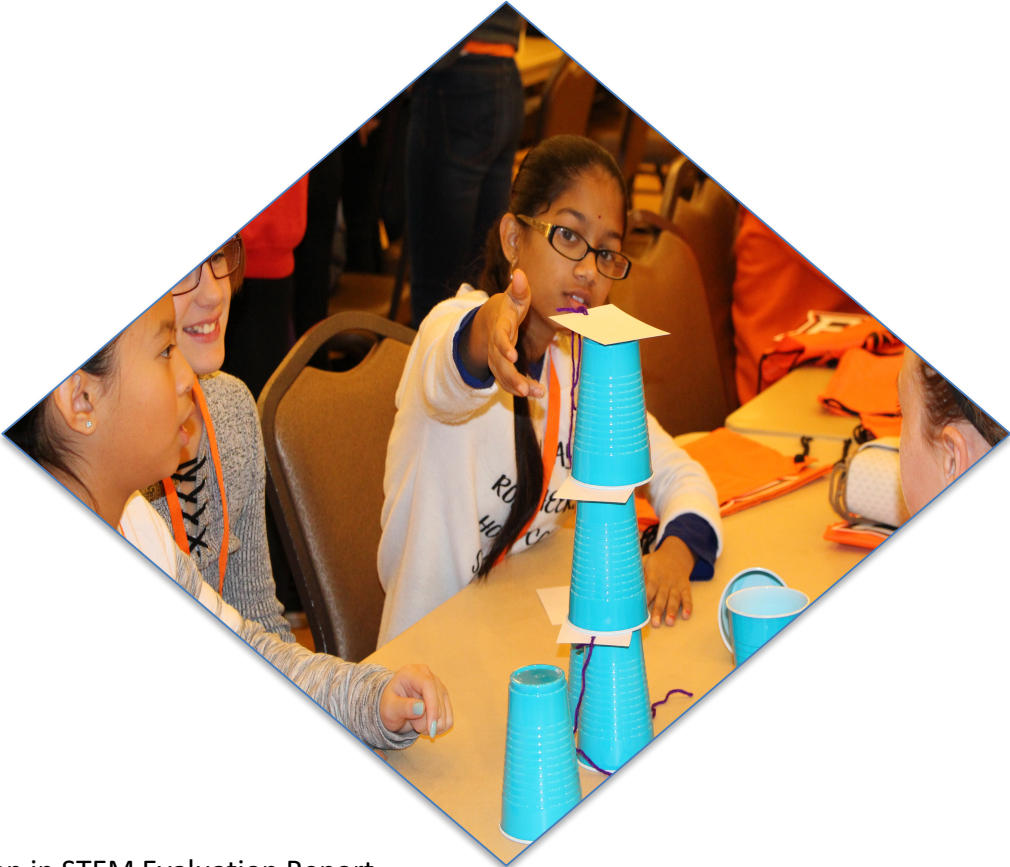
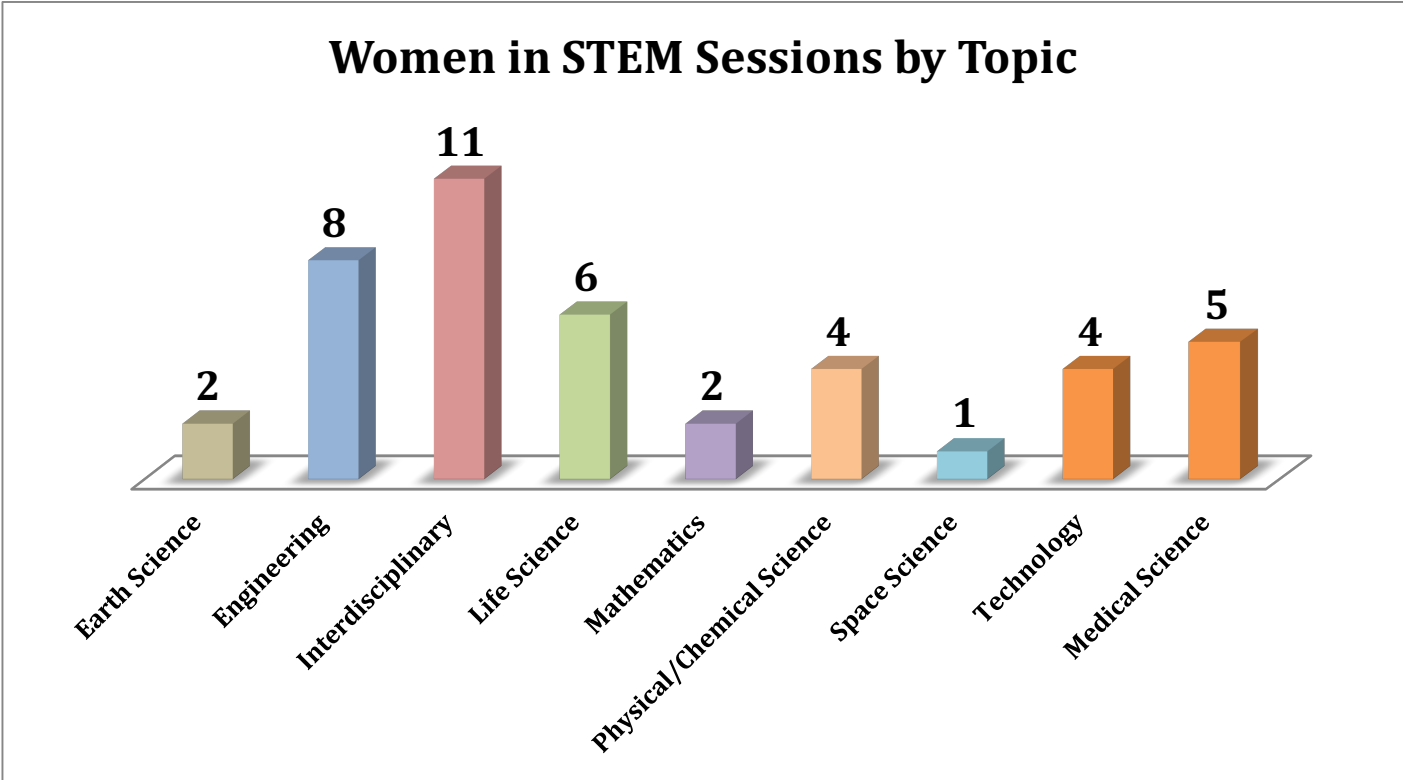
Amherst Junior High School	Leverette Elementary School
Arlington Local Schools	McTigue Elementary
Bowling Green Middle School	Midview Middle School
Buckeye Central Middle School	Northwood High School
Chase STEMM Elementary	Seneca East Middle School
Fassett Junior High School	Spencerville Middle School
Gateway Middle School	St. Patrick of Heatherdowns
Jones Leadership Academy	Toledo School for the Arts
Lake Middle School	Van Buren Middle School

Event Activities

Women in STEM was coordinated by the Northwest Ohio Center for Excellence in STEM Education at Bowling Green State University for the fourth year in a row. The schedule of the 2017 event is illustrated below. Students attended a keynote activity, three content sessions, and a closing activity before being dismissed at 2:00 PM. BP sponsored free registration and travel grants for underserved and/or low-income schools in Ohio to attend.

8:30 AM – 9:00 AM	9:05 AM – 9:45 AM	9:55 AM – 10:40 AM	10:50 AM – 11:35 AM	11:45 AM – 12:30 PM	12:40 PM – 1:25 PM	1:35 PM – 2:00 PM
Check-in and Welcome	Keynote Activity with Imagination Station	Session 1	Lunch (students split)	Lunch (students split)	Session 4	Closing Remarks & Admissions Raffle
			Session 2 (students split)	Session 3 (students split)		

Students were kept in their school groups throughout the day. The students attended three out of forty three possible sessions during the event. The types of the 2017 sessions are shown below.

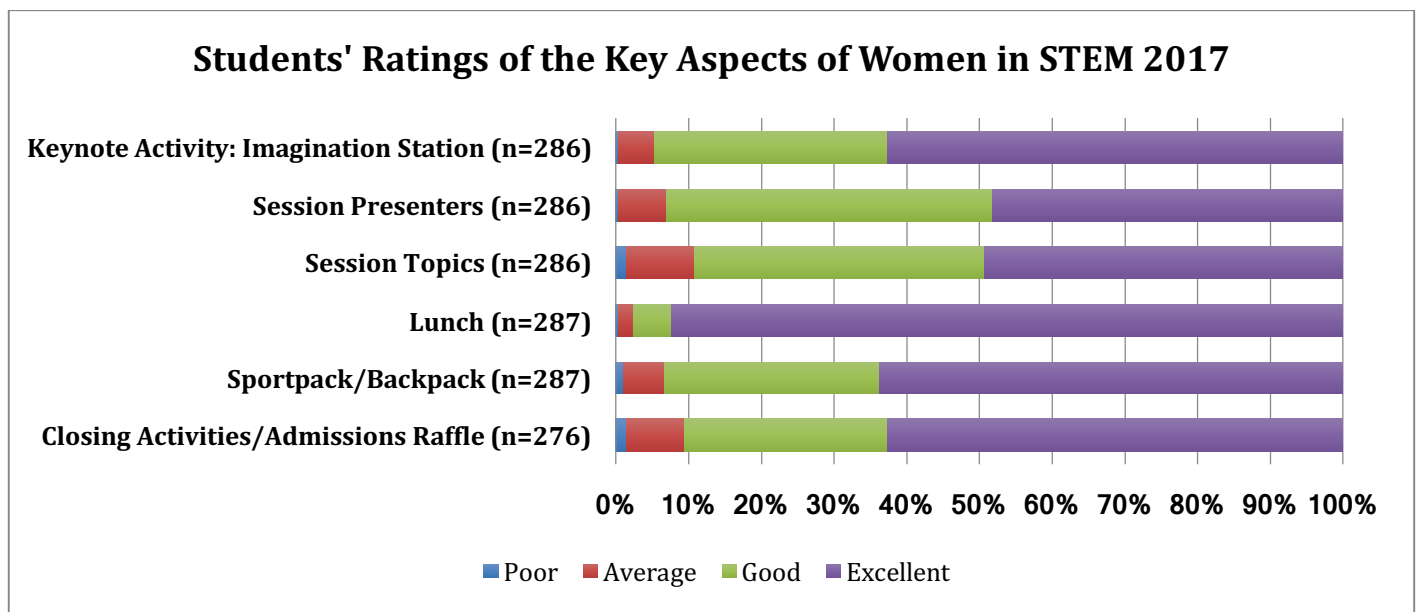


Quality of the Event

The quality of the Women in STEM event was determined by examining evaluation responses from all participations: students, presenters, and chaperones/teachers. Presenters' thoughts about the events were documented using an online post-event survey (Appendix A). Students' thoughts about the event were documented using session-specific evaluation survey and an overall survey, printed double sided for the students (Appendix B). Chaperones' thoughts about the event were documented using an overall survey (Appendix C).

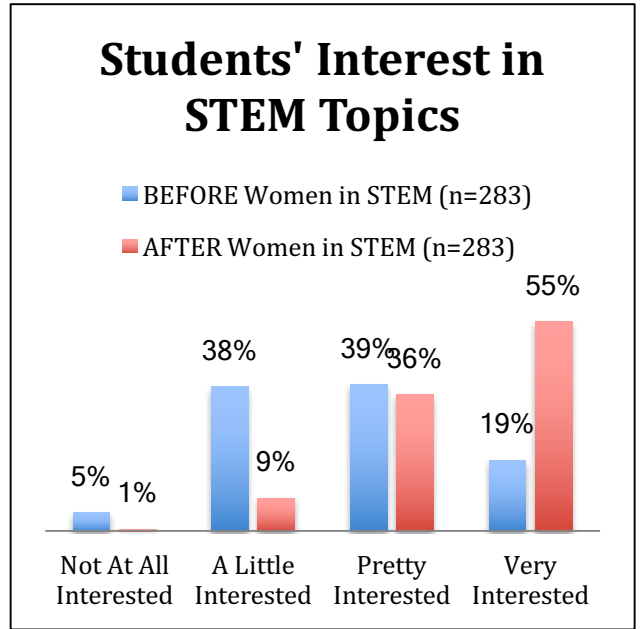
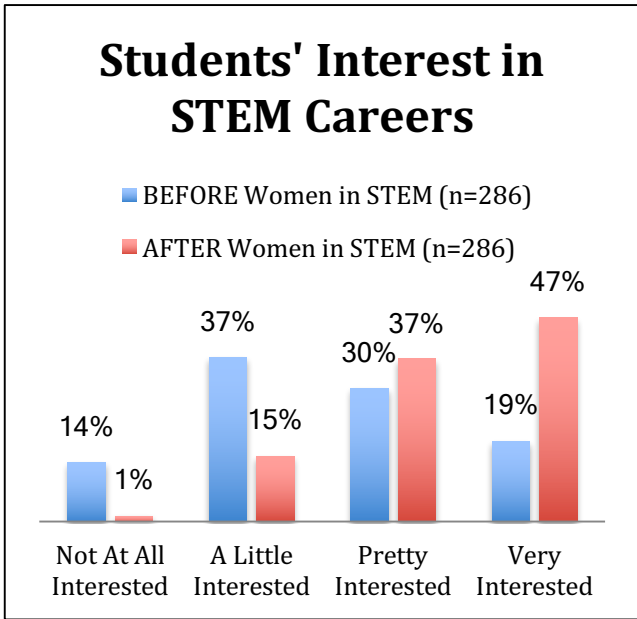
From the Students' Perspective

Students completed an evaluation survey for every session they attended. Altogether, 842 session evaluation surveys were submitted for 43 unique sessions. Students were generally very positive about the sessions. They believed that the presenters were high-quality, the sessions were engaging and worth their time, and the sessions made STEM seem interesting and important. Students agreed most with statements about the quality of the presenters (good at explaining the topic and answering questions; enthusiastic about the topic). The figure below illustrates the students' overall survey responses for all sessions where evaluations were collected.



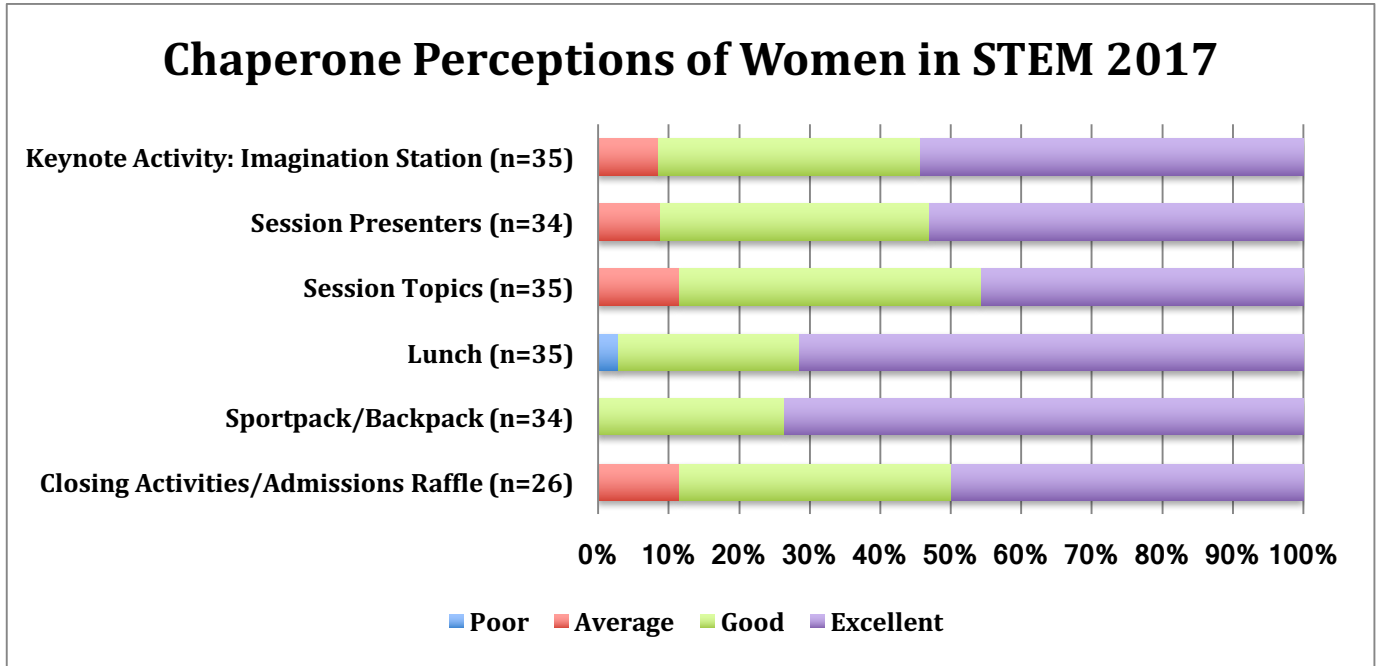
Although all sessions had a positive average rating, some sessions were (inevitably) better received than others. Individual session evaluation data was sent to each presenter. The table in Appendix D lists all main presenters for the sessions. Some presenters conducted more than one sessions and each session is listed and ranked separately. This information should be considered when inviting and deciding on presenters in the future.

On the overall evaluation, given at the end of the event only, students were asked to identify their interest in “STEM Topics” and “STEM Careers” before attending and after attending Women in STEM. Their self-reported data is below. After Women in STEM, 84% of the students reported being “Pretty or Very Interested” in STEM careers and relatedly 90% reported being “Pretty or Very Interested” in STEM topics. Appendix C contains the overall evaluation survey that was given to students and contained these questions.



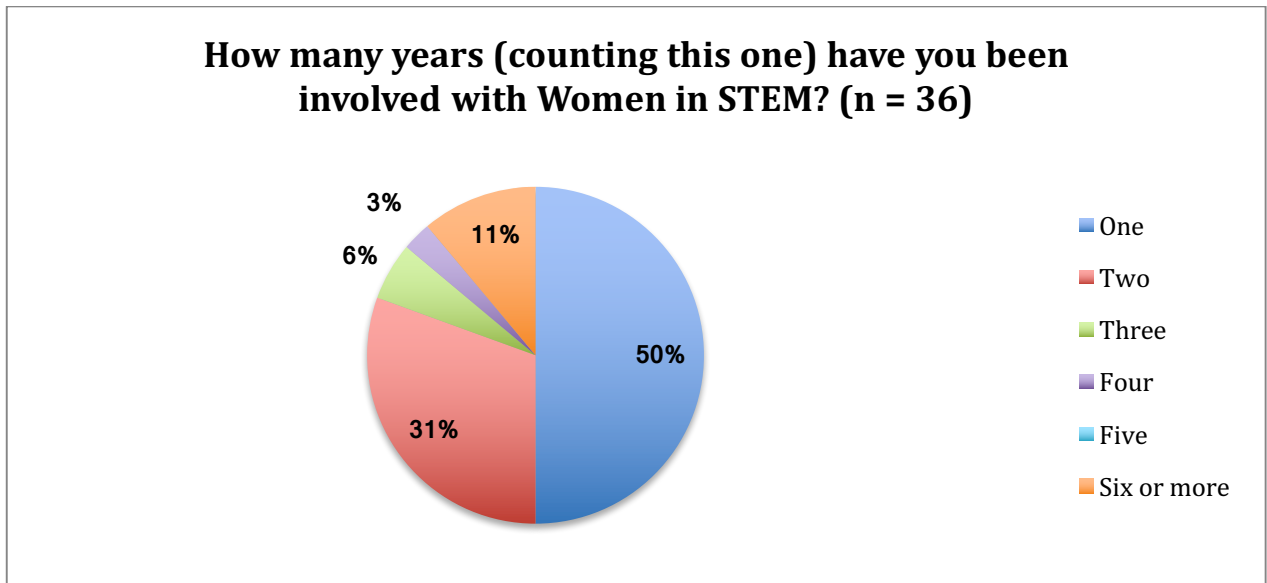
From the Chaperones' Perspective

A total of 50 chaperones completed the overall evaluation survey after the event, for a total response rate of 98%. Chaperones' perspective of the different aspects of the Women in STEM program are displayed below; overall, they felt fairly positively about this year's event and the many aspects that go into making the complete programmatic experience for attendees.

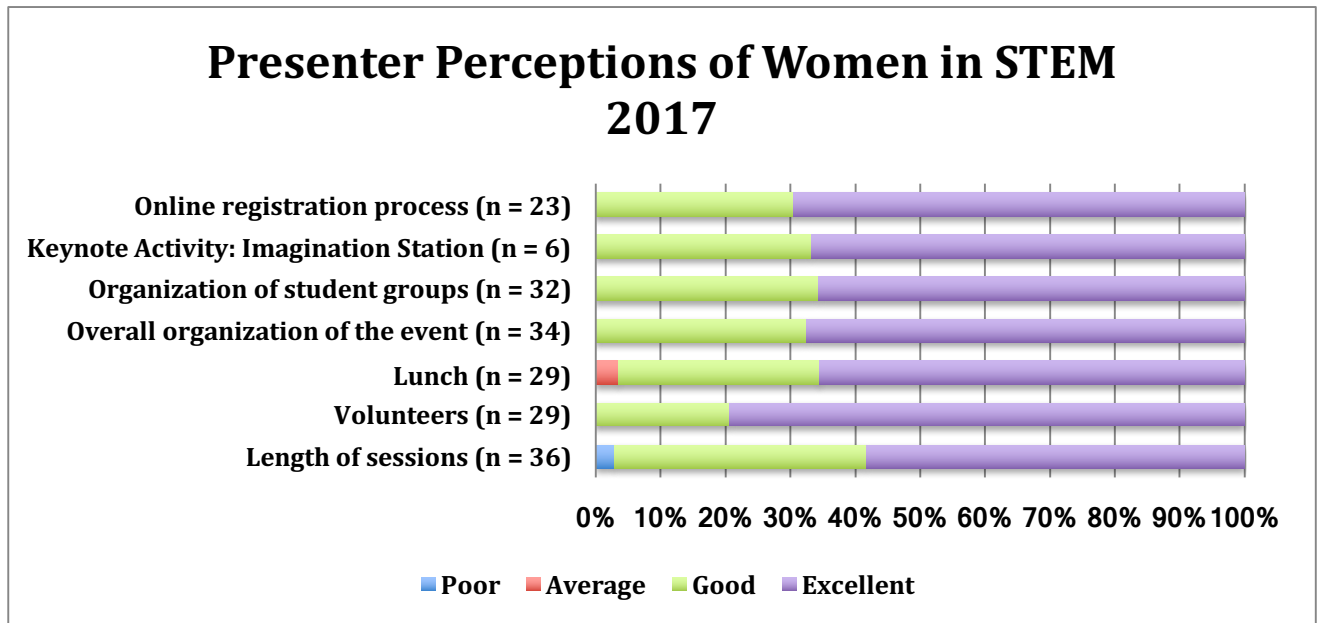


From the Presenters' Perspective

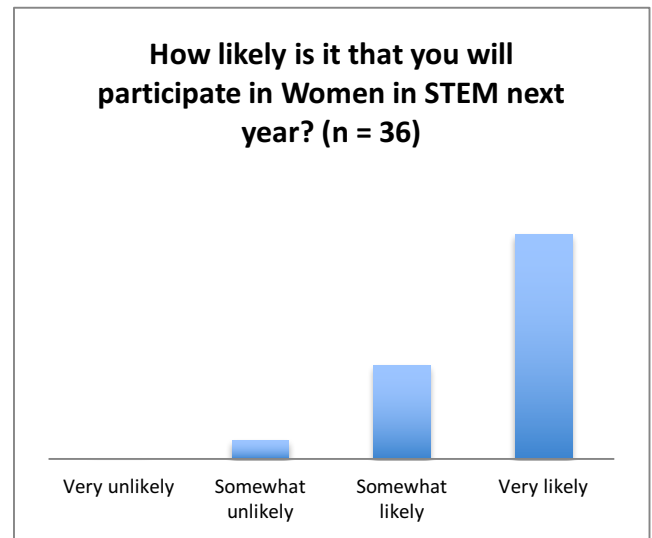
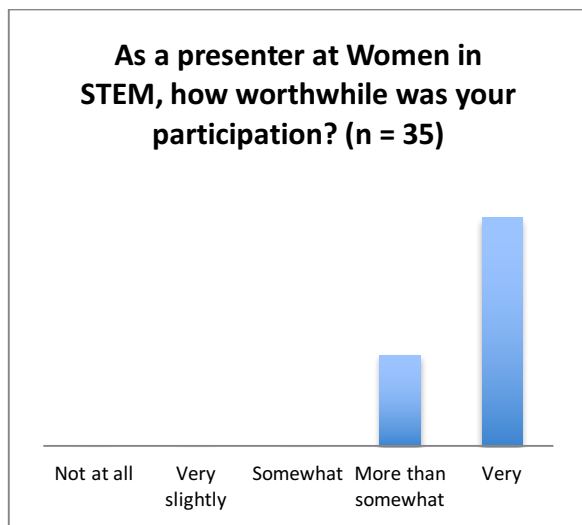
Thirty-six presenters completed the online evaluation (response rate of 46, down 8% from 2016). The majority (81%) of the respondents indicated that this was their first or second year participating in Women in STEM, indicating that staff recruitment efforts to include new presenters appears to be working well.



Presenters were also asked to rate several aspects of the Women in STEM program. Their responses are detailed below. The majority of respondents noted that they did not take part in the keynote activity, which accounts for the low response rate in this category on the chart below. Overall, the presenters responded very positively about the event overall with the majority rating each category as “excellent” or “good”.



Additionally, presenters were asked to rate the extent to which their participation was worthwhile. All presenters reported their participation to be “more than somewhat” or “very” worthwhile and 94% indicated that they were “somewhat likely” or “very likely” to participate in future Women in STEM events. Their reasoning mostly revolved around the importance of getting girls engaged in STEM; serving as potential role models for the girls, the organization of the event, and the fact that the girls in their sessions seemed interested in what was being presented. The charts below display the overall responses from the presenters regarding their participation this year and in the future.



Impact of the Event

The presenters who completed the overall evaluation survey believed the event was most successful in exposing students to STEM topics and careers of which the students may not have otherwise been aware. Some of the survey respondents wrote:

- *It is like "bring daughter to work". We may not see immediate effect, but on the long run, we will see impact on girls' interest and understanding of STEM.*
- *I think the impact is high. I wish that I had the opportunity to see so many different career exploration events when I was a young woman. This gives them visibility to just how vast their choices are as they get older.*
- *I feel it opens their eyes to possibilities/opportunities they might never have known about. the teachers too! win-win.*
- *I think its a wonderful program - if each year we can turn one young woman onto her potential in STEM we have spent the day well.*
- *It's often hard to tell with middle schoolers but each year you do get those whose eyes seem to light up with that aha moment of possibilities.*

Recommendations

The following recommendations are made based on the feedback from the evaluation surveys and input from project staff:

- **Continue with the combined paper overall and session evaluation survey at the end of the day.** There was a near 100% response rate for the sessions and overall with this method of evaluating the program. Many presenters appreciated not having to take the time at the end of their session to give out evaluations but still appreciate the feedback from their presentation. The combined evaluation sheet allows for feedback on the sessions without taking time from presenters.
- **Allow schools to select their top picks for session themes.** Several chaperones and students commented (for the third year in a row) that they wanted to be able to select which sessions they attend. While it is not entirely feasible for schools to select the exact sessions they attend, it would be worth considering adding a section to the registration to allow schools to order the session themes by interest for their group (i.e. first, second, third, fourth choice, etc.).
- **Require grade level counts for schools.** For the second year in a row, the presenters requested more information about what to expect in terms of knowledge from the girls in their session to help them better prepare for their presentation. One recommendation for next year is to change the registration to require schools to identify the number of girls attending from each grade level as opposed to the current method of just asking for an overall number.
- **Provide more guidance to presenters regarding the age/grade of the participating girls.** Related to the above recommendation, several presenters indicated that they would have benefited from more guidance on how to prepare for the girls in their session. Additionally, more guidance and support for first time presenters about the type of presentation they should create would help the presenters create more hands-on, interactive presentations which will more thoroughly engage the girls in their STEM topic.

Women in STEM Presenter Evaluation Survey

We Hope You Enjoyed the 2017 Women in STEM Event at BGSU!

Members of the Women in STEM committee are always seeking ways to improve future events. The best way to do this is to find out what participants think of the event, and use their comments and suggestions to make future events better.

Please take a few minutes to complete the following evaluation survey and tell us what you thought about the 2017 Women in STEM event. We appreciate your cooperation!

Thank you for your assistance in improving Women in STEM.

Women in STEM Presenter Evaluation Survey

Presenters: Please Tell Us What You Think

How many years (counting this one) have you been involved with Women in STEM?

- One (this is my first year)
- Two
- Three
- Four
- Five
- Six or more

Appendix A Cont.

Please rate the following aspects of Women in STEM 2017.

	Poor	Average	Good	Excellent	This doesn't apply to me
Online registration/presentation submission process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keynote Activity: Imagination Station	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Organization of student groups	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall organization of the event	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lunch	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Length of sessions (time available for your presentation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please provide some comments to further explain your above ratings.

As a presenter at Women in STEM, how worthwhile was your participation?

- Not at all
- Very slightly
- Somewhat
- More than somewhat
- Very

Please briefly explain why you think so.

As a Presenter, what is your perception of the impact of Women in STEM on students' interest in and understanding of STEM (science, technology, engineering, and mathematics)?

Appendix A Cont.

How likely is it that you will participate in Women in STEM next year?

- Very unlikely
- Somewhat unlikely
- Somewhat likely
- Very likely

The Women in STEM planning committee is considering moving this event to the spring. How likely would you be to present if this event happened in mid to late May (after the BGSU spring semester ends)?

- Very unlikely
- Somewhat unlikely
- Somewhat likely
- Very likely

Women in STEM Presenter Evaluation Survey

We Want to Know About Your Women in STEM Experience

Please describe your experience at Women in STEM 2017 in your own words. You can include the parts that you liked as well as those that you didn't like.

What suggestions do you have for next year's event? Is there is anything that you would want to see kept or removed? Is there anything you would change or add?

THANK YOU VERY MUCH FOR YOUR COOPERATION!

Women in STEM 2017 Overall Evaluation

Thank you for attending the 2017 Women in STEM at BGSU! We are glad you were part of this event!

Please take a few minutes to answer the following questions and tell us what you thought about the event. We appreciate your cooperation! Thank you for your assistance in improving Women in STEM.

School: «School in Session»

Grade: _____

Please answer the questions below for each session you attended. Read each statement carefully. Then, select the one choice that best matches your opinion of the statement. There are no right or wrong answers. We only want to know your opinion.

«Presentation_Times»: «First_Name» «Last_Name» («Presentation_Title»)

	No, Not at All	No, Not Really	Yes, Kind of	Yes, For Sure
We learned about this session’s topic in a fun and engaging way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was good at explaining the topic and answering questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was enthusiastic about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attending this session was worth my time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session engaged me in a hands-on activity related to the presented topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session made science, technology, engineering and/or math seem interesting and important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«Next Record»«Presentation_Times»: «First_Name» «Last_Name» («Presentation_Title»)

	No, Not at All	No, Not Really	Yes, Kind of	Yes, For Sure
We learned about this session’s topic in a fun and engaging way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was good at explaining the topic and answering questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was enthusiastic about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attending this session was worth my time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session engaged me in a hands-on activity related to the presented topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session made science, technology, engineering and/or math seem interesting and important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

«Next Record»«Presentation_Times»: «First_Name» «Last_Name» («Presentation_Title»)

	No, Not at All	No, Not Really	Yes, Kind of	Yes, For Sure
We learned about this session’s topic in a fun and engaging way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was good at explaining the topic and answering questions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The presenter was enthusiastic about the topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attending this session was worth my time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session engaged me in a hands-on activity related to the presented topic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
This session made science, technology, engineering and/or math seem interesting and important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Women in STEM 2017 Overall Evaluation

Thank you for attending the 2017 Women in STEM at BGSU! We are glad you were part of this event!

Please take a few minutes to answer the following questions and tell us what you thought about the event.

We appreciate your cooperation! Thank you for your assistance in improving Women in STEM.

1) Please rate the following aspects of Women in STEM 2017.

	Poor	Average	Good	Excellent
Keynote Activity: Imagination Station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Session Presenters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Session Topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sportpack/Backpack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closing Activities/Admissions Raffle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2) How interested in STEM (science, technology, engineering, and mathematics) topics were you before and after attending Women in STEM? Choose the options below that describe you best.

	Not At All Interested	A Little Interested	Pretty Interested	Very Interested
Before Women in STEM, I was:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After Women in STEM, I am:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3) How interested were you in having a career in STEM before and after attending Women in STEM? Choose the options below that describe you best.

	Not At All Interested	A Little Interested	Pretty Interested	Very Interested
Before Women in STEM, I was:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After Women in STEM, I am:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4) Please use the space below to describe your experience at Women in STEM in your own words. You can include the parts that you liked as well as those that you didn't like.

5) Which of the following best describes the way you define your racial/ethnic background? Please only select ONE.

- White, non-Hispanic
 Black, non-Hispanic
 Hispanic
 Asian/Pacific Islander
 Middle Eastern
 American Indian/Native Alaskan
 Multiracial

Women in STEM 2017 Overall Evaluation

Thank you for attending the 2017 Women in STEM at BGSU! We are glad you were part of this event!

Please take a few minutes to answer the following questions and tell us what you thought about the event.
We appreciate your cooperation! Thank you for your assistance in improving Women in STEM.

School: _____

Chaperone Status: Select one of the following.

Teacher: Parent/Guardian: School Administrator: Other: _____

1) Please rate the following aspects of Women in STEM.

	Poor	Average	Good	Excellent
Keynote Activity: Imagination Station	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Session Presenters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Session Topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lunch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sportpack/Backpack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Closing Activities/Admissions Raffle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2) Please use the space below to describe your experience at Women in STEM in your own words. You can include the parts that you liked as well as those that you didn't like.

3) As a chaperone, what is your perception of the impact of Women in STEM on students' interest in and understanding of STEM (science, technology, engineering, and mathematics)?

Appendix D

Presenter	Session #	Presentation Title	Presentation Theme	Total # of Responses	We learned about this session's topic in a fun and engaging way.	The presenter was good at explaining the topic and answering questions.	The presenter was enthusiastic about the topic.	Attending this session was worth my time.	This session engaged me in a hands-on activity related to the presented topic.	This session made science, technology, engineering, and/or math seem interesting and important.	Average Session Rating
Chelsea Moyer	4	Breakout Challenge	Interdisciplinary	19	3.95	3.95	4.00	3.95	4.00	3.90	3.96
Gabriel Matney	2	Experiencing Energy in Multiple Forms	Interdisciplinary	20	3.95	4.00	4.00	3.90	3.95	3.95	3.96
Jadwiga Carlson	4	Sit! Speak! Learn how to Train your LEGO Puppy Robot.	Technology	20	4.00	3.70	3.75	4.00	4.00	3.95	3.90
Karen Karl	4	The Tower Project - Building the Future	Engineering	39	3.92	3.80	3.92	3.85	3.90	3.90	3.88
Jackie Kane	4	Build a Bristlebot	Engineering	21	3.95	3.81	3.81	3.90	3.90	3.90	3.88
Kim Fleshman	1	Soar into the Collab Lab; create your Falcon Flyer	Technology	20	3.95	3.90	3.80	3.90	3.95	3.75	3.88
Jaimie Johnson	4	Aquatic Macroinvertebrates	Life Science	20	4.00	3.80	3.70	3.75	4.00	3.75	3.83
Alexis Ostrowski	1	Kitchen Chemistry	Physical/Chemical Science	20	3.80	3.85	3.90	3.85	3.95	3.60	3.83
Xiaoming Huang	4	Tangram Puzzle -- a game of shapes	Mathematics	20	3.80	3.90	3.60	4.00	3.90	3.75	3.83
Lynda Geoffrion	3	Gelling With Science	Physical/Chemical Science	20	3.80	3.90	3.85	3.70	3.75	3.80	3.80
Lynda Geoffrion	4	Gelling With Science	Physical/Chemical Science	20	3.75	3.74	3.80	3.79	3.85	3.70	3.77
Sue Pollock	1	A Day in the Life of a Certified Hand Therapist	Medical Science	20	3.90	3.60	3.50	3.75	3.90	3.80	3.74
Matt Partin	1	Marine Biology	Life Science	20	3.65	3.80	3.70	3.85	3.68	3.65	3.72
Jadwiga Carlson	3	Sit! Speak! Learn how to Train your LEGO Puppy Robot.	Technology	20	3.70	3.60	3.55	3.68	3.85	3.85	3.71
Vicki Abrams Motz	3	Ethnobotany Workshop – The Antibiotic Activity of Thyme	Life Science	19	3.63	3.74	3.74	3.63	3.72	3.63	3.68
Jennifer Elsworth	2	Macroinvertebrate Mayhem	Interdisciplinary	20	3.65	3.85	3.65	3.55	3.65	3.60	3.66
Vicki Abrams Motz	4	Ethnobotany Workshop – The Antibiotic Activity of Thyme	Life Science	20	3.75	3.74	3.40	3.65	3.75	3.60	3.65
Jennifer Elsworth	3	Macroinvertebrate Mayhem	Interdisciplinary	19	3.53	3.58	3.59	3.58	3.84	3.67	3.63
Sue Pollock	2	A Day in the Life of a Certified Hand Therapist	Medical Science	17	3.59	3.53	3.76	3.59	3.65	3.50	3.60
Marilyn DuFour	1	The Other Water Cycle: STEM Careers in Public Utilities	Interdisciplinary	20	3.53	3.73	3.74	3.42	3.63	3.47	3.59
Melissa Greenlee	1	Technical Women in Manufacturing	Interdisciplinary	20	3.58	3.58	3.47	3.78	3.63	3.47	3.59
Shelby Hyre	1	Exercise? I Thought you said Extra Fries?: A Glimpse into the Exercise Science Field	Medical Science	20	3.50	3.55	3.55	3.60	3.65	3.65	3.58
Andrea Altenburg	3	From sand to glass containers	Engineering	20	3.60	3.50	3.58	3.47	3.65	3.65	3.58
Julia Porcella	1	Product Design Workshop	Engineering	20	3.50	3.75	3.50	3.55	3.55	3.45	3.55
Donna Trautman	1	Digital Media	Technology	21	3.43	3.62	3.52	3.52	3.50	3.52	3.52
Jeanne Matthews	3	The many faces of occupational therapy	Medical Science	20	3.35	3.80	3.60	3.48	3.24	3.30	3.46
Marilyn DuFour	3	The Other Water Cycle: STEM Careers in Public Utilities	Interdisciplinary	13	3.46	3.85	3.08	3.38	3.50	3.23	3.42
Resmi Krishnankuttyrema	3	It is soldering time!	Engineering	17	3.41	3.18	3.24	3.53	3.82	3.24	3.40
Megan Saalfeld	1	Make it SHAKE: Earthquakes and Seismology	Earth Science	20	3.05	3.65	3.60	3.35	3.25	3.37	3.38
Michelle Grooms	4	What's Your Mood?	Interdisciplinary	18	3.22	3.39	3.33	3.39	3.22	3.50	3.34
Andi Erbskorn	1	History CSI: Using Science and Math to Solve History's Mysteries	Interdisciplinary	17	3.00	3.53	3.47	3.35	3.24	3.38	3.33
Jeanne Matthews	2	The many faces of occupational therapy	Medical Science	20	3.40	3.75	3.85	2.90	3.00	3.00	3.32
Kate Dellenbusch	1	Telling Time by the Stars	Space Science	20	3.40	3.25	3.30	3.35	3.35	3.20	3.31
Corrinne Lochtefeld	3	Paving the Road to Your Future	Engineering	18	3.22	3.44	3.39	3.36	3.22	3.00	3.27
Lynda Geoffrion	1	Gelling With Science	Physical/Chemical Science	19	3.16	3.58	3.32	3.00	3.53	3.00	3.27
Corrinne Lochtefeld	4	Paving the Road to Your Future	Engineering	21	3.00	3.52	3.48	3.18	3.18	3.19	3.26
Marilyn DuFour	4	The Other Water Cycle: STEM Careers in Public Utilities	Interdisciplinary	20	3.15	3.35	3.45	3.12	3.35	3.05	3.25
Andi Erbskorn	2	History CSI: Using Science and Math to Solve History's Mysteries	Interdisciplinary	20	3.45	3.75	3.85	3.75	0.65	3.55	3.17
Xiaoming Huang	2	Tangram Puzzle -- a game of shapes	Mathematics	19	3.33	3.06	3.11	3.05	3.33	3.00	3.15
Cordula Mora	1	The neurobiology of Zombies	Life Science	19	3.05	3.53	3.16	3.05	2.84	3.05	3.11
Andrea Altenburg	4	From sand to glass containers	Engineering	20	3.05	3.45	3.30	3.10	2.75	2.90	3.09
Paul Morris	1	Orienting without eyes: How plant pathogens identify their hosts.	Life Science	13	2.85	3.38	2.69	3.46	3.17	2.92	3.08
Anita Simic	4	Using a drone in monitoring Earth	Earth Science	13	2.85	3.00	3.23	2.62	1.77	2.62	2.68

1 = No, Not at All 2 = No, Not Really 3 = Yes, Kind of 4 = Yes, For Sure

Appendix E

School	Total # of Responses	Keynote Activity: Imagination Station	Session Presenters	Session Topics	Lunch	Sportpack/Backpack	Closing Activities/Admissions Raffle	Average Overall Rating
Spencerville Middle School	20	3.85	3.85	3.95	4.00	4.00	4.00	3.94
Buckeye Central Middle School	20	3.60	3.80	3.68	3.95	3.75	3.89	3.78
Gateway Middle School	15	3.87	3.60	3.60	3.93	3.67	3.73	3.73
Seneca East Middle School	20	3.90	3.55	3.55	3.75	3.75	3.75	3.71
Bowling Green Middle School	20	3.65	3.55	3.70	3.95	3.65	3.60	3.68
Van Buren Middle School	20	3.70	3.42	3.55	4.00	3.55	3.70	3.65
Arlington Local High School	17	3.59	3.59	3.29	4.00	3.59	3.71	3.63
Northwood High School	19	3.68	3.68	3.42	3.89	3.26	3.44	3.56
Midview Middle School	20	3.55	3.25	3.30	3.90	3.60	3.65	3.54
Amherst Jr. High School	20	3.55	3.50	3.40	3.90	3.60	3.10	3.51
Fassett Junior High School	20	3.37	3.30	3.15	3.95	3.45	3.32	3.42
Lake Middle School	20	3.32	3.16	3.11	3.84	3.63	3.44	3.42
Toledo School for the Arts	20	3.60	3.25	3.30	4.00	3.20	3.13	3.41
Chase Elementary	5	3.40	2.40	3.20	4.00	3.40	3.80	3.37
Leverette Elementary	9	3.56	2.89	3.00	3.89	3.33	3.33	3.33
McTigue Elementary	8	3.38	2.63	2.50	4.00	3.75	2.86	3.19
St. Patrick of Heatherdowns	6	3.00	3.00	2.67	3.67	3.33	3.00	3.11
Jones Leadership Academy	9	2.56	3.00	2.56	3.00	3.00	2.78	2.82

1 = Poor

2 = Average

3 = Good

4 = Excellent