

## MANUFACTURING DAY 2019 REPORT ON STUDENT TOURS

MFG DAY is a national outreach effort sponsored by manufacturing organizations to promote manufacturing career pathways and opportunities. It was established in 2012 and has grown every year. Starting in 2013 and in connection with the national engagement efforts, the Florida Advanced Technological Center of Excellence (FLATE) has facilitated 1,031 student tours impacting 29,480 students and 1,916 educators who have visited 844 manufacturing companies across the state of Florida. Companies from fifty of Florida's sixty-seven counties have hosted a student tour at least once. Approximately thirty-five percent of the students visiting facilities returned a student survey about their experience on their MFG DAY Florida tour.

This report consists of a 7-year data summary, a summary of all the student tour survey responses from the 2019 tours, break out student tour survey responses for those regions that held student tours and participated in the survey, and some sample student comments. Overwhelmingly the student responses are extremely positive. Individual comments from students are most commonly about the high-tech machines, how they work and the process of assembling products. Students also commented positively on advanced technology and how certain procedures are in place to ensure the quality of the product. Other comments included the friendliness of the tour guides and company hosts, learning about careers and opportunities in manufacturing, and seeing real-life examples of STEM in the workplace.

FLATE also surveyed educators, chaperons and tour guides about their MFG DAY Florida experiences. Educators continue to rate the tours as excellent experiences both for themselves and for their students. 100% of the industry tour hosts say that the tours are worth their time and investment and find the tours also help to build camaraderie and community within their companies from the front office to the loading docks.

We look forward to working with companies, schools and organizations in Florida in 2020 to provide student tours of manufacturing facilities every year. We thank our many partners in this effort because we certainly could not do it alone. You can find more information about MFG DAY on our website, [www.mfgday-fl.com](http://www.mfgday-fl.com) and tour resources on our wiki site, [www.flate.pbwiki.com](http://www.flate.pbwiki.com). Please don't hesitate to contact us if you have any questions about the data reported in this document or if you are interested in participating in the future.

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FL Dashboard	2013	2014	2015	2016	2017*	2018*	2019*	Total Cumulative
Counties	23	39	50	32	32	21	19	-
Sudents	2,307	3,150	4,770	4,846	5,070	5,075	4,262	29,480
Teachers	110	174	318	268	359	392	295	1,916
Parents	66	113	318	217	120	129	117	1,080
Student Tours	72	95	159	186	165	178	176	1,031
Student Surveys	1,286	1,496	2,076	1,764	2,202	1,237	1,492	11,553
Manuf. Employees	225	350	636	569	680	798	683	3,941
In-kind & Cash	>\$30K	>\$50K	>\$145K	>177K	>\$412K	>\$429K	>1,222M	>\$2,477M

*\*Years 2017, 2018 & 2019 included virtual tours  
 Updated February 28, 2020*



## Florida MFG DAY & Month 2019 Student Survey Results

### Cumulative Report

**Total # of Tours: 176      Total # of Hosts: 117      Total # of Schools: 134      Total # of Participating Students: 4,262      Total # of Surveys: 1492**

**Participating Counties: Baker, Broward, Citrus, Clay, Duval, Hernando, Hillsborough, Levy, Manatee, Marion, Nassau, Orange, Osceola, Pasco, Pinellas, Polk, Putnam, Sarasota, St. Johns**

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	5	96	389	12	238	657	490	907	1397
2. My teachers have talked about advanced manufacturing with my class.	35	315	870	6	125	175	1220	306	1526
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	28	382	1010	3	23	37	1420	63	1483
4. This tour gave me new information about careers in advanced manufacturing.	23	381	1006	3	15	38	1410	56	1466
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	17	365	937	3	31	109	1319	143	1462
6. I would recommend that other students have the opportunity of this tour.	40	384	1004	1	14	42	1428	57	1485
7. I am now considering a career in advanced manufacturing.	22	188	655	22	157	385	865	564	1429
<b>Total Responses</b>	170	2111	5871	50	564	1443	8152.2	2096	10248

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>95.4%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>68.4%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>76.5%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 178 # of Hosts: 126 # of Schools: 135 # of participating students: 5075 # of total surveys: 1237
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 1049	<b>Girls:</b> 399	<b>Other:</b> 44	<b>TOTAL:</b> 1,492
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	98	257	584	622	37	60

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	58	157	124	170	231	297	339	116

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

When titanium impacts the ground, it takes that energy and shoots the titanium back up. (When titanium is in shape of ball)

I learned how there is much more to manufacturing than just machines. There are people who have to design the products, handle financing, work in human resources. There is a lot that goes into making a single product.

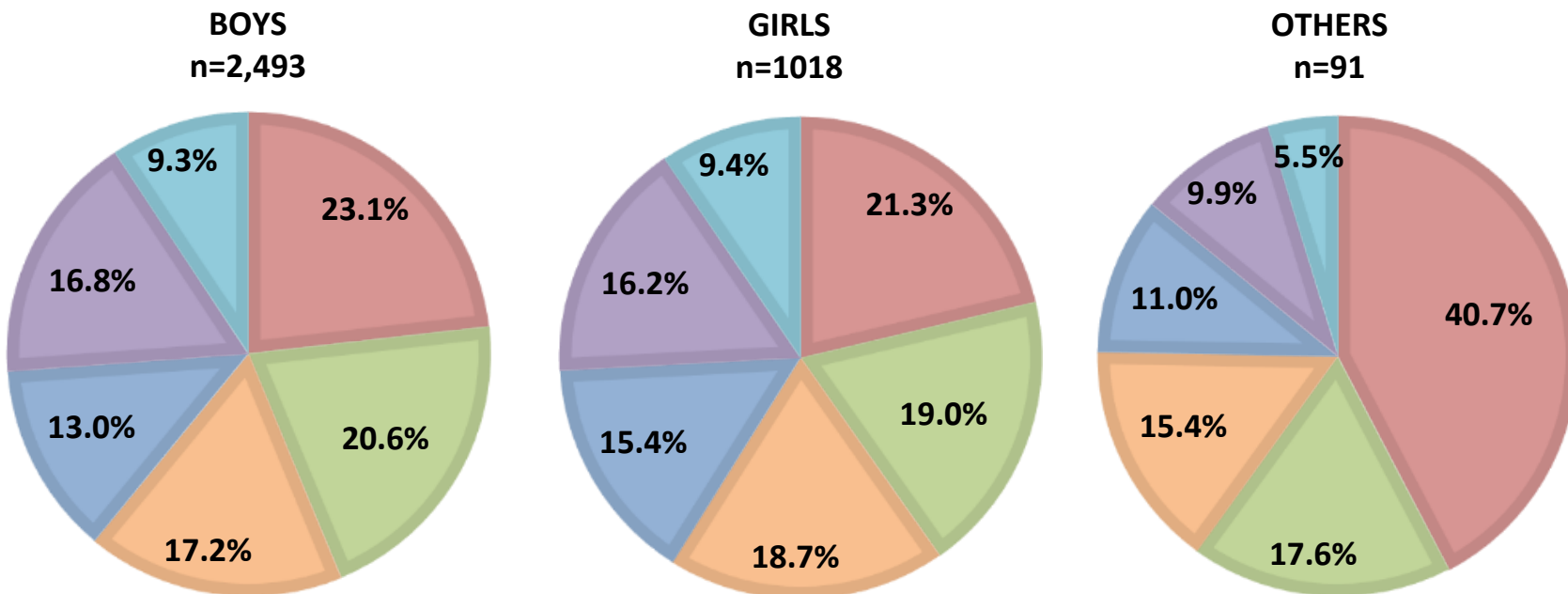
There is a lot of responsibility that come with manufacturing; tolerance and precision is extremely important, inspection is necessary in order to keep others safe and it must be a certain temperature.

I've learned that SMT can help you with a program that last 2 years and teaches you all about manufacturing. I also learned that in manufacturing, building a product depends on the worker

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning About Machines and How They Work
Advanced Technology, Testing, Quality, Precision
Tour Guides Explained Information Well
Hands On Activities, Interactiveness, Real Life examples
Career, Jobs Available, Requirements
Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Broward County

**Total # of Tours: 9      Total # of Hosts: 2      Total # of Schools: 8      Total # of Participating Students: 149      Total # of Surveys: 36**

**Participating Hosts: Hoerbiger, Sintavia**

**Participating Schools: Atlantic Technical HS, American Heritage HS, Boyd Anderson HS, Coral Glades HS, Dillars HS, Monarch HS, Nova HS, South Broward HS**

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	3	5	0	0	1	8	1	9
2. My teachers have talked about advanced manufacturing with my class.	19	3	6	5	0	0	28	5	33
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	12	3	6	2	0	0	21	2	23
4. This tour gave me new information about careers in advanced manufacturing.	7	3	6	2	0	0	16	2	18
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	2	3	6	1	0	0	11	1	12
6. I would recommend that other students have the opportunity of this tour.	23	3	6	1	0	0	32	1	33
7. I am now considering a career in advanced manufacturing.	16	3	6	11	0	0	25	11	36
<b>Total Responses</b>	79	21	41	22	0	1	141	23	164

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>0%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>20.0%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>212.5%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 4 # of Hosts: 3 # of Schools: 3 # of participating students: 78 # of total surveys: 30
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b>	6	<b>Girls:</b>	3	<b>Other</b>	27	<b>TOTAL</b>	36

<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	1	1	6	1	0	27

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	0	0	0	9	27

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

3-D printing metal is considered additive machining.

At Sintavia I learned that rocks can be used to give a smooth surface for parts.

When titanium impacts the ground, it takes that energy and shoots the titanium back up. (When titanium is in shape of ball)

# Categorized Write-in Responses

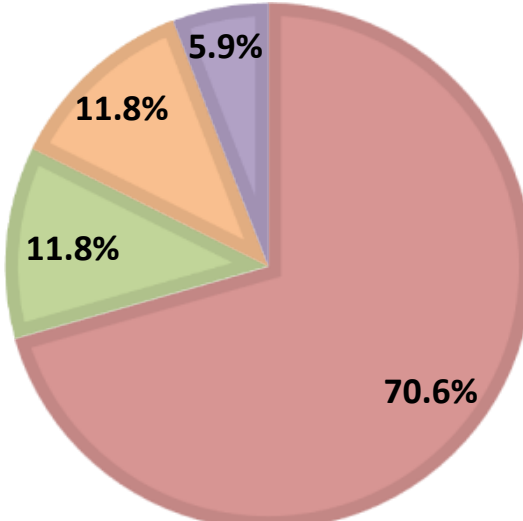
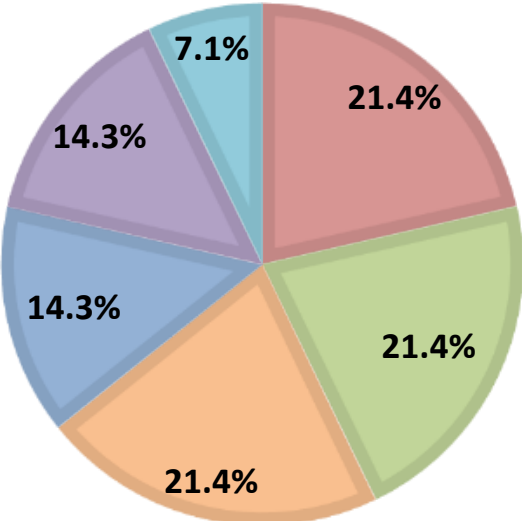
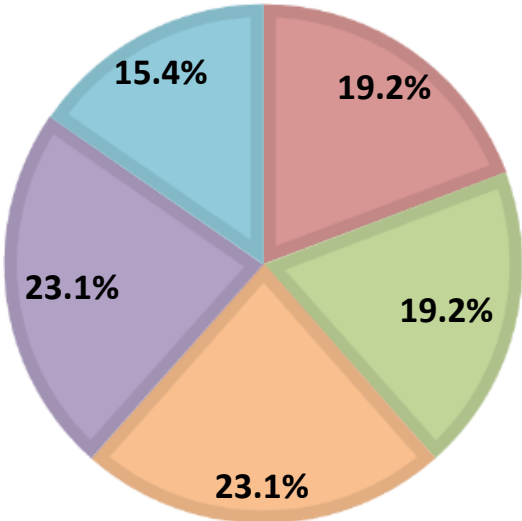
## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender

**BOYS**  
n=26

**GIRLS**  
n=14

**OTHERS**  
n=34



### Color Code Legend:

Learning about machines and how they work
Advanced Technology, Testing, Quality, Precision
Tour Guides Explained Information Well
Hands On Activities, Interactiveness, Real Life examples
Career, Jobs Available, Requirements
Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Clay County

**Total # of Tours: 5      Total # of Hosts: 4      Total # of Schools: 4      Total # of Participating Students: 149      Total # of Surveys: 60**

**Participating Hosts:** Dupuy Silo Facility, S&P Ventilation Systems, Vac-Con, Veritas Steel

**Participating Schools:** Clay HS, Keystone Heights Jr.-Sr. HS, Orange Park HS, Ridgeview HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	2	14	0	12	32	16	44	60
2. My teachers have talked about advanced manufacturing with my class.	0	11	33	0	3	13	44	16	60
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	14	43	0	0	3	57	3	60
4. This tour gave me new information about careers in advanced manufacturing.	0	14	43	0	0	3	57	3	60
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are	0	13	40	0	1	6	53	7	60
6. I would recommend that other students have the opportunity of this tour.	0	14	44	0	0	2	58	2	60
7. I am now considering a career in advanced manufacturing.	0	5	25	0	8	17	30	25	55
<b>Total Responses</b>	0	73	242	0	24	76	315	100	415

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>150%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>78.6%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>87.5%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: nr # of Hosts: nr # of Schools: nr # of participating students: nr # of total surveys: nr
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\*NR = Not Reported

Surveyed Students	<b>Boys:</b> 46	<b>Girls:</b> 14	<b>Other</b> 0	<b>TOTAL</b> 60
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Ethnicity	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	5	16	25	21	1	0

Grade	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	2	15	23	15	5

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

That you have to double check your work before you confirm it is done. If anything goes wrong during the product you have to start over on the whole thing.

That it can cost around 10,000 on a mess up. Also that blasting shell can help stop erosion.

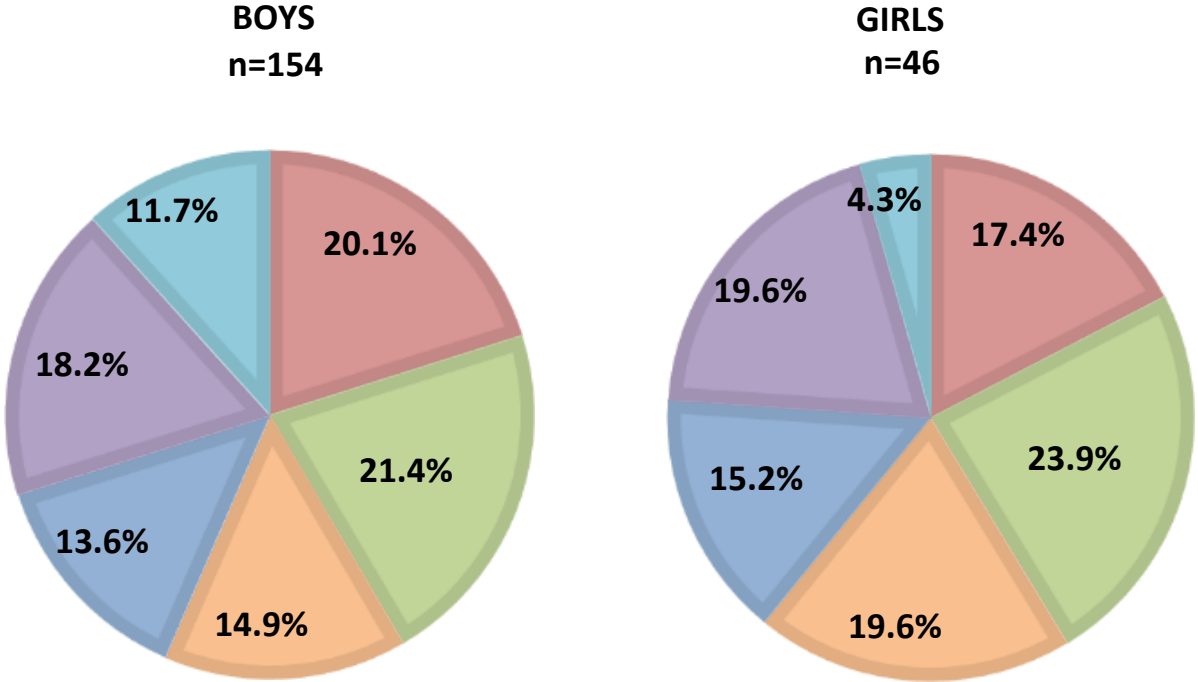
I learned that coffee beans are not grown anywhere in America. Huge trucks are filled to the top with beans.

Manufacturing is connected throughout the world and some countries are more advanced than us. Also machines take people's jobs but make things faster and efficient.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work
Advanced Technology, Testing, Quality, Precision
Tour Guides Explained Information Well
Hands On Activities, Interactiveness, Real Life examples
Career, Jobs Available, Requirements
Importance of Manufacturing in Daily Life/History





## Florida MFG DAY & Month 2019 Student Survey Results

### Duval County

**Total # of Tours: 6      Total # of Hosts: 6      Total # of Schools: 6      Total # of Participating Students: 140      Total # of Surveys: 20**

**Participating Hosts:** BAE Systems, JZ Logistics, Kaman, Miller Electric, Sally Corporation, Symrise

**Participating Schools:** A. Philip Randolph HS, Andrew Jackson HS, Douglas Anderson School of Arts, Frank H. Peterson Academies of Technology, Robert E. Lee HS, Sandalwood HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	5	10	0	2	3	15	5	20
2. My teachers have talked about advanced manufacturing with my class.	0	7	12	0	0	1	19	1	20
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	7	12	0	0	1	19	1	20
4. This tour gave me new information about careers in advanced manufacturing.	0	7	12	0	0	1	19	1	20
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are	0	6	10	0	1	3	16	4	20
6. I would recommend that other students have the opportunity of this tour.	0	7	13	0	0	0	20	0	20
7. I am now considering a career in advanced manufacturing.	0	4	10	0	2	3	14	5	19
<b>Total Responses</b>	0	43	79	0	5	12	122	17	139

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>-20%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>0.0%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>-6.7%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 5 # of Hosts: 6 # of Schools: 8 # of participating students: 123 # of total surveys: 0
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 13	<b>Girls:</b> 7	<b>Other:</b> 0	<b>TOTAL:</b> 20
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	1	13	4	6	1	0

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	1	9	1	8	1

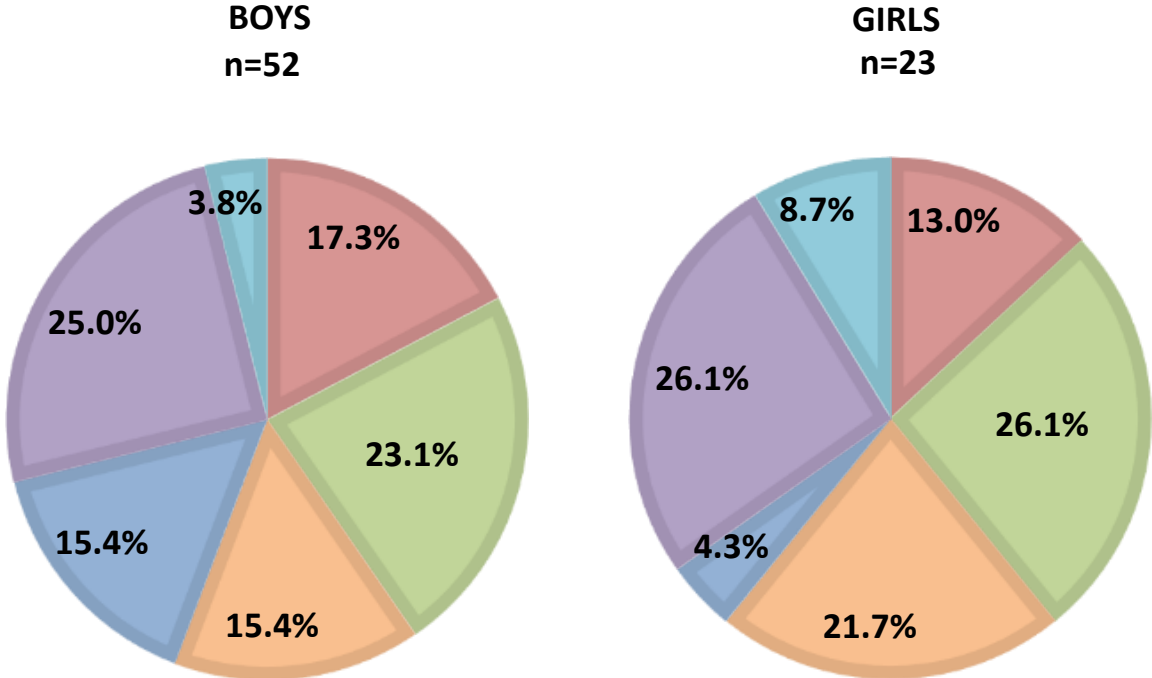
#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

- I learned that there is a lot of precision and quality that goes into manufacturing as well as a lot of team work.
- I learned that the robots and steps of processing takes a lot of people to plan and communicate to sell a produce to a consumer.
- One thing that I had learned about manufacturing that I hadn't known before was that in some cases "hands-on" precision is favored before taking advantage of a robotics process. While machines can be better suited for repetitive actions, more intricate works require a person doing it themselves.
- I learned that there is almost a job position for everybody which makes me more excited to work in the industry. I also learned how a few of the parts were made and assembled.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work
Advanced Technology, Testing, Quality, Precision
Tour Guides Explained Information Well
Hands On Activities, Interactiveness, Real Life examples
Career, Jobs Available, Requirements
Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results Hernando County

**Total # of Tours: 10      Total # of Hosts: 6      Total # of Schools: 5      Total # of Participating Students: 236      Total # of Surveys: 100**

**Participating Hosts:** Accuform, Alumni-Guard, Brooksville Airport, Cemex, Intrepid, Monster Transmission

**Participating Schools:** Central HS, Hernando HS, HVAC, Nature Coast Technical HS, Pace Center for Girls

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	1	6	31	1	19	42	38	62	100
2. My teachers have talked about advanced manufacturing with my class.	2	20	65	0	4	7	87	11	98
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	2	24	70	0	1	3	96	4	100
4. This tour gave me new information about careers in advanced manufacturing.	2	24	71	0	0	2	97	2	99
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	1	22	60	1	2	13	83	16	99
6. I would recommend that other students have the opportunity of this tour.	2	24	69	0	1	4	95	5	100
7. I am now considering a career in advanced manufacturing.	2	13	54	0	12	19	69	31	100
<b>Total Responses</b>	12	133	420	2	39	90	565	131	696

### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

### 2018 MFG Day Data

<b>117%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>74.2%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>81.6%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 10 # of Hosts: 10 # of Schools: 8 # of participating students: 428 # of total surveys: 269
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\*NR = Not Reported

Surveyed Students	Boys:	73	Girls:	25	Other	2	TOTAL	100
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Ethnicity	Asian	Black	Hispanic	White	Other	NR
	5	6	50	41	2	4

Grade	6th	7th	8th	9th	10th	11th	12th	NR
	0	0	0	50	5	13	24	8

### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

I learned about different types of welding like pipe welding. We also learned about the fence can change into different color by powder.

I learned the process of manufacturing(buying/importing materials, processing them, making the product , shipping). I also learned about engineering and what engineers do.

I learned that manufacturers can make pieces smaller than hand with exact preciseness. I also learned that every job inside of the manufacturer's building is important.

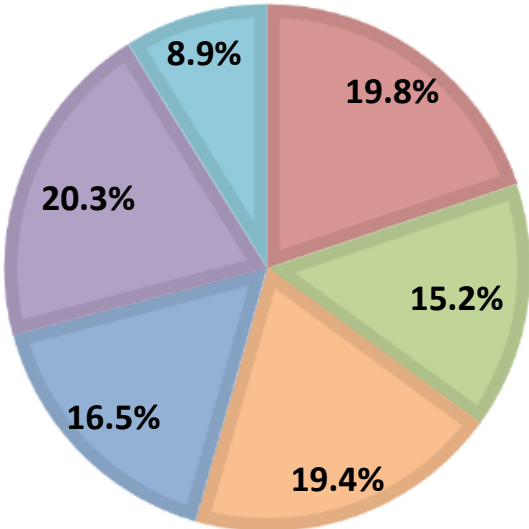
Today I learned about the repair process of turbofan engines. The guide showed us around the shop, telling us how all the tools work and what engines they were working on.

# Categorized Write-in Responses

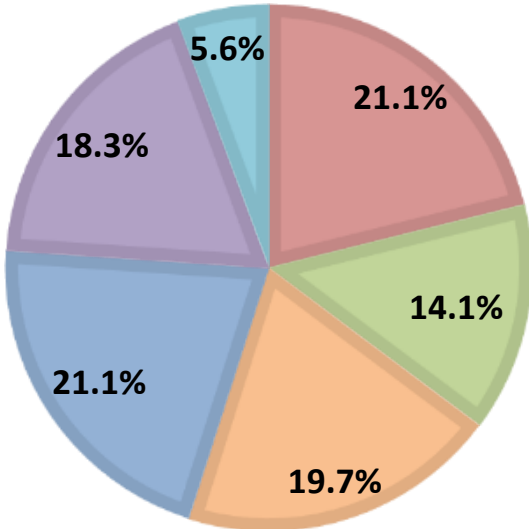
## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender

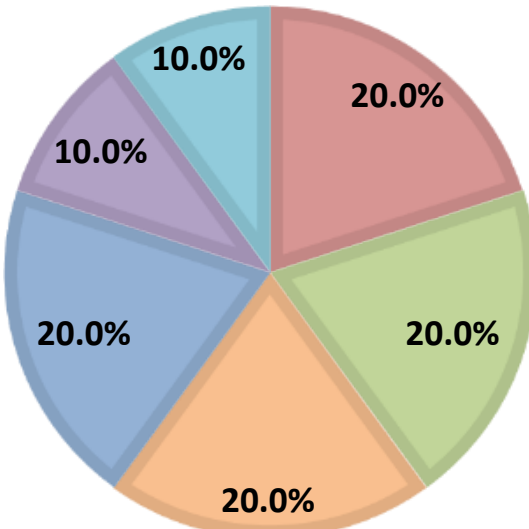
**BOYS**  
n=237



**GIRLS**  
n=



**OTHERS**  
n=



### Color Code Legend:

Learning about machines and how they work	Red
Advanced Technology, Testing, Quality, Precision	Green
Tour Guides Explained Information Well	Orange
Hands On Activities, Interactiveness, Real Life examples	Blue
Career, Jobs Available, Requirements	Purple
Importance of Manufacturing in Daily Life/History	Cyan



## Florida MFG DAY & Month 2019 Student Survey Results

### Hillsborough County

**Total # of Tours: 26      Total # of Hosts: 10      Total # of Schools: 21      Total # of Participating Students: 772      Total # of Surveys: 328**

**Participating Hosts:** AMRoC Fab Lab; Creative Sign Designs; EMI Industries; HCC ET Lab; International Paper, Co.; Southern Manufacturing Technologies; SOFWERX; Sypris; Tampa International Airport; Tampa Bay Steele

**Participating Schools:** Alonzo HS, Armwood HS, Beth Shields MS, Buchanan MS, Coleman MS, Ferrell Middle Magnet School, Franklin MS, Gaither HS, Greco MS, Hillsborough HS, Leto HS, Madison MS, Marshall MS, McLane MS, Middleton HS, Robinson HS, Stewart Middle Magnet School, Tampa Bay Tech. HS, Webb Middle MS, Young Middle Magnet School

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	3	28	63	4	76	152	94	232	326
2. My teachers have talked about advanced manufacturing with my class.	6	87	167	1	17	47	260	65	325
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	6	97	202	1	4	13	305	18	323
4. This tour gave me new information about careers in advanced manufacturing.	7	99	200	0	6	14	306	20	326
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	6	92	192	1	12	23	290	36	326
6. I would recommend that other students have the opportunity of this tour.	7	97	199	0	8	15	303	23	326
7. I am now considering a career in advanced manufacturing.	2	49	121	5	53	94	172	152	324
<b>Total Responses</b>	<b>37</b>	<b>549</b>	<b>1144</b>	<b>12</b>	<b>176</b>	<b>358</b>	<b>1730</b>	<b>546</b>	<b>2276</b>

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.			2018 MFG Day Data		
<b>75.0%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>92.1%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>83.0%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.
<b># of Tours: 19</b> <b># of Hosts: 10</b> <b># of Schools: 17</b> <b># of participating students: 684</b> <b># of total surveys: 137</b>					

\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 216	<b>Girls:</b> 105	<b>Other:</b> 7	<b>TOTAL:</b> 328
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	34	91	129	130	11	6

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	40	81	95	7	7	36	40	22

#### Question# 8: Tell us one thing you have learned about Manufacturing that you didn't know before.

I learned that there are two types of motion: linear and rotational. I also learned about schematics regarding pneumatic flow.

I've learned that SMT can help you with a program that last 2 years and teaches you all about manufacturing. I also learned that in manufacturing, building a product depends on the worker

There is a lot of responsibility that come with manufacturing; tolerance and precision is extremely important, inspection is necessary in order to keep others safe and it must be a certain temperature.

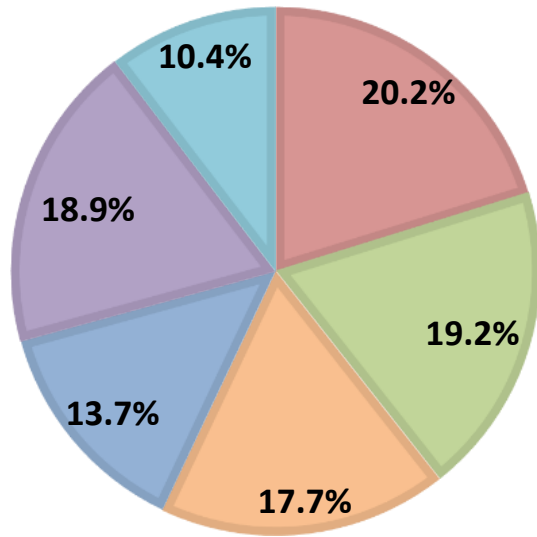
Different types of machines help us in everyday life, so it is important to have people building and manufacturing these things for us.

# Categorized Write-in Responses

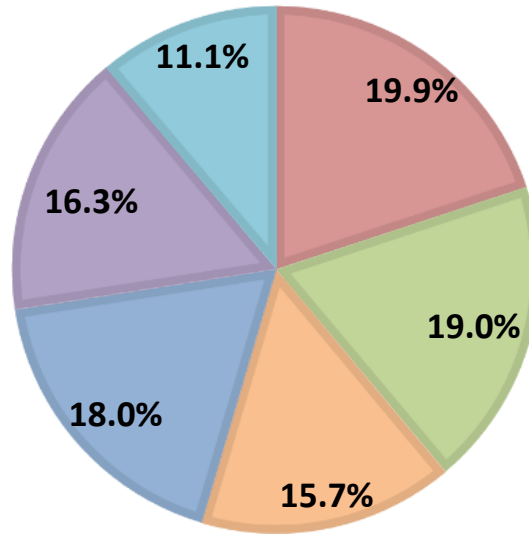
## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender

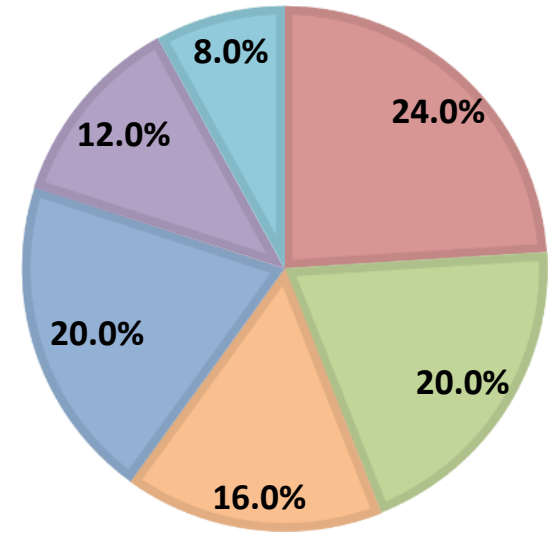
**BOYS**  
n=673



**GIRLS**  
n=306



**OTHERS**  
n=25



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Marion County

**Total # of Tours: 15**      **Total # of Hosts: 9**      **Total # of Schools: 5**      **Total # of Participating Students: 312**      **Total # of Surveys: 67**

**Participating Hosts:** Cardinal Glass, College of Central FL, HALE, Lockheed Martin, Marion County Sheriff's Department, Ocala Regional Hospital, Signature Brands, Suctom Windows, Townley Manufacturing, USA Scientific

**Participating Schools:** Belleview HS, Cyris, Forest HS, North Marion HS, West Port HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	1	5	12	1	19	29	18	49	67
2. My teachers have talked about advanced manufacturing with my class.	2	19	30	0	5	11	51	16	67
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	2	24	40	0	0	1	66	1	67
4. This tour gave me new information about careers in advanced manufacturing.	2	24	39	0	0	2	65	2	67
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	2	24	38	0	0	3	64	3	67
6. I would recommend that other students have the opportunity of this tour.	2	24	41	0	0	0	67	0	67
7. I am now considering a career in advanced manufacturing.	1	11	25	1	13	16	37	30	67
<b>Total Responses</b>	12	131	225	2	37	62	368	101	469

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>120%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>108.3%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>105.6%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 24 # of Hosts: 16 # of Schools: 8 # of participating students: 600 # of total surveys: 239
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 41	<b>Girls:</b> 24	<b>Other</b> 2	<b>TOTAL</b> 67
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	3	7	20	39	5	1

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	0	38	16	13	0

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

Manufacturing doesn't always have to be electronic. There's pneumatic machinery that is still used that electronic machinery can't perform as well.

I didn't know that Lockheed Martin worked with NASA and the military for a lot of their projects

I learned about all the different steps included in manufacturing to produce to the correct product and amount of it.

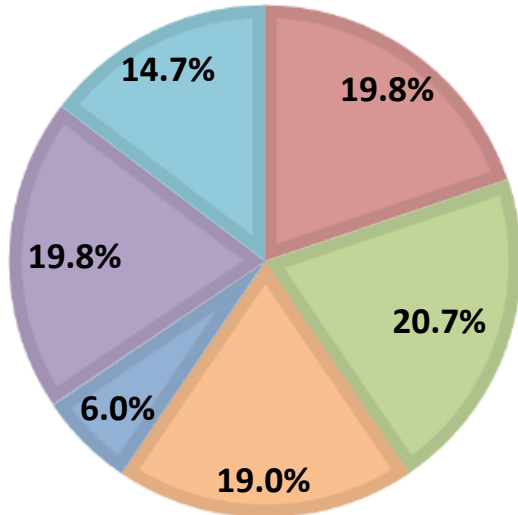
I learned about the Chemical Testing done in a Manufacturing lab.

# Categorized Write-in Responses

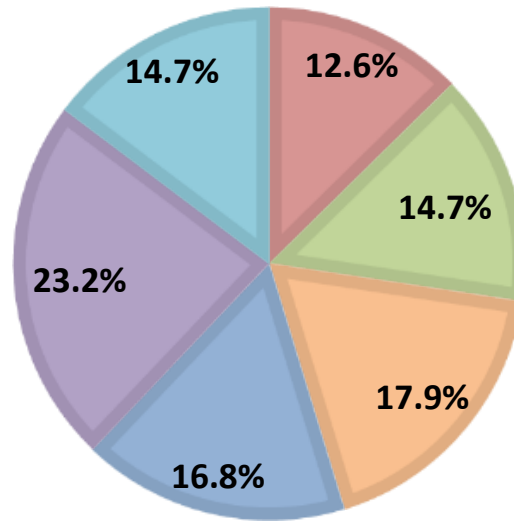
## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender

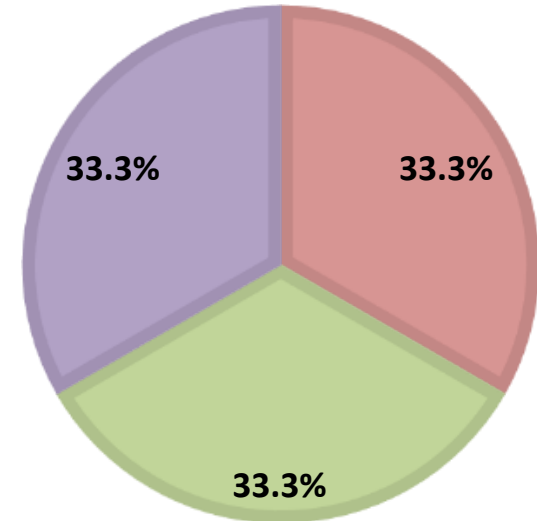
**BOYS**  
n=116



**GIRLS**  
n=95



**OTHERS**  
n=3



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History





## Florida MFG DAY & Month 2019 Student Survey Results

### Nassau County

**Total # of Tours: 20**

**Total # of Hosts: 9**

**Total # of Schools: 5**

**Total # of Participating Students: 515**

**Total # of Surveys: 10**

**Participating Hosts:** Amalia Toffee Company, FL Machine Works, FL Sun Printing, Masonite, Mooney's Custom Woodworking, Rayonier Advanced Materials, Science First, International Flavors & Fragrances, Grace Aerospace

**Participating Schools:** Fernandina Beach HS, Fernandina Beach MS, Hilliard MS, West Nassau HS, Yulee HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	0	4	0	2	4	4	6	10
2. My teachers have talked about advanced manufacturing with my class.	0	2	8	0	0	0	10	0	10
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	2	8	0	0	0	10	0	10
4. This tour gave me new information about careers in advanced manufacturing.	0	2	8	0	0	0	10	0	10
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are	0	2	8	0	0	0	10	0	10
6. I would recommend that other students have the opportunity of this tour.	0	2	8	0	0	0	10	0	10
7. I am now considering a career in advanced manufacturing.	0	1	6	0	0	2	7	2	9
<b>Total Responses</b>	0	11	50	0	2	6	61	8	69

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>900%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>50.0%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>70.7%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 10 # of Hosts: 5 # of Schools: 5 # of participating students: 350 # of total surveys: 72
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 8	<b>Girls:</b> 2	<b>Other:</b> 0	<b>TOTAL:</b> 10
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	0	0	3	7	0	0

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	0	1	3	6	0

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

That there is so many steps, teams, and components that make everything work.

There are many things you need to do in order to achieve your goal. What you want to be when you're older.

That there is many different jobs in manufacturing. I also learned that there is a lot of different steps involved.

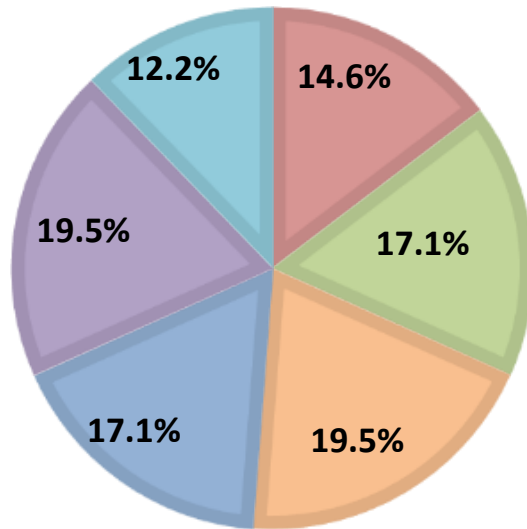
Although it's a lot of manual work, if it's something you like, you can make a company out of it.

# Categorized Write-in Responses

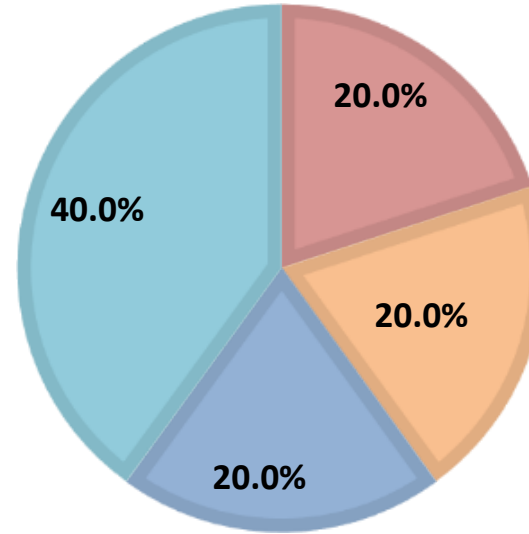
## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender

**BOYS**  
n=41



**GIRLS**  
n=5



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Orange County

**Total # of Tours: 10      Total # of Hosts: 7      Total # of Schools: 10      Total # of Participating Students: 109      Total # of Surveys: 86**

**Participating Hosts: Amazon Hose and Rubber, CelMark, Custom Metal Designs, Data Graphics, DusoBox, JBT Aerotech, Mitsubishi Hitachi**

**Participating Schools: Colonial HS, Freedom HS, Maynard Evans HS, Oak Ridge HS, Ocoee HS, Olympia HS, West Orange HS, William R. Boone HS, Windememere HS, Winter Park HS**

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	6	9	0	26	44	15	70	85
2. My teachers have talked about advanced manufacturing with my class.	0	18	34	0	14	19	52	33	85
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	29	49	0	2	4	78	6	84
4. This tour gave me new information about careers in advanced manufacturing.	0	27	51	0	4	2	78	6	84
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	0	27	46	0	5	7	73	12	85
6. I would recommend that other students have the opportunity of this tour.	0	29	45	0	3	8	74	11	85
7. I am now considering a career in advanced manufacturing.	0	9	21	0	23	32	30	55	85
<b>Total Responses</b>	0	145	255	0	77	116	400	193	593

Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.			2018 MFG Day Data
<b>50%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>133.3%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>100.0%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 16 # of Hosts: 12 # of Schools: 16 # of participating students: 400 # of total surveys: 62

\*NR = Not Reported

Surveyed Students	<b>Boys:</b> 53	<b>Girls:</b> 33	<b>Other:</b> 0	<b>TOTAL:</b> 86
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Ethnicity	<b>Asian:</b> 11	<b>Black:</b> 25	<b>Hispanic:</b> 23	<b>White:</b> 38	<b>Other:</b> 1	<b>NR:</b> 0
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Grade	<b>6th:</b> 0	<b>7th:</b> 0	<b>8th:</b> 0	<b>9th:</b> 1	<b>10th:</b> 23	<b>11th:</b> 32	<b>12th:</b> 29	<b>NR:</b> 1
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#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

I learned that you don't necessarily need educational experience in manufacturing if you atleast have personal experience or ready to learn overtime.

I thought it was intrsting how everything in the plant was set out as an assembly line and you were able to witness the transformation of scrap metal into huge machinery as you walked down the line.

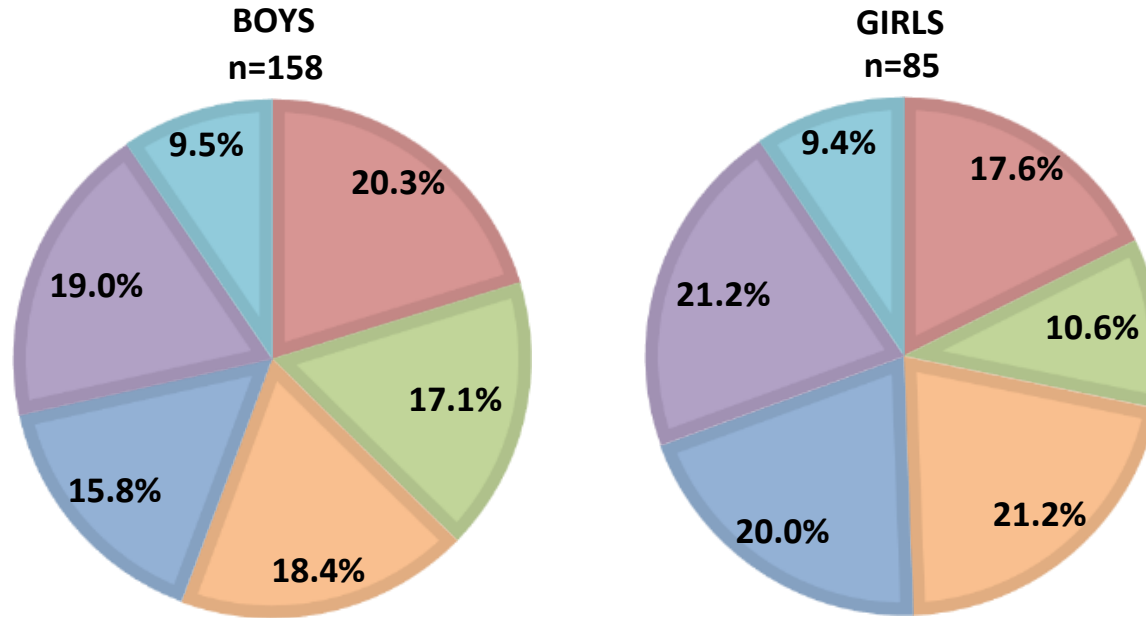
How the assembly lines works in real life and their system to evaluate the performance of the employees

The manufacturing process and how they cut out cardboard using manufacturing and mass production machines

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results Pinellas County

**Total # of Tours: 16**      **Total # of Hosts: 16**      **Total # of Schools: 15**      **Total # of Participating Students: 458**      **Total # of Surveys: 264**

**Participating Hosts:** American Tool & Mold; BELAC; ConMed; H & S Swanson's Tool Co.; Hydro-Dyne Engineering, Inc.; Lockheed Martin; Mastercut Tool; Molex; Monin; Microlumen; Omnicell; Performance Feeders; Pinellas Technical College; S.S. White Technologies; Valpak; Wendover Art

**Participating Schools:** Azalea MS; Boca Ciega HS; Countryside HS; Dixie Hollins HS; Dunedin HS; East Lake HS; East Lake MS; Largo HS; Northeast HS; Osceola Fundamental HS; Osceola MS; Palm Harbor MS; Seminole HS; Seminole MS; Technical HS of Seminole

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	15	58	4	0	125	73	129	202
2. My teachers have talked about advanced manufacturing with my class.	4	61	159	0	61	23	224	84	308
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	4	74	179	0	15	3	257	18	275
4. This tour gave me new information about careers in advanced manufacturing.	3	74	177	1	3	5	254	9	263
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	4	75	162	0	2	20	241	22	263
6. I would recommend that other students have the opportunity of this tour.	4	75	172	0	2	10	251	12	263
7. I am now considering a career in advanced manufacturing.	0	29	111	4	2	71	140	77	217
<b>Total Responses</b>	19	403	1018	9	46	257	1440	351	1791

### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

### 2018 MFG Day Data

<b>93%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>91.4%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>91.8%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 19 # of Hosts: 17 # of Schools: 15 # of participating students: 614 # of total surveys: 203
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\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b>	183	<b>Girls:</b>	77	<b>Other</b>	4	<b>TOTAL</b>	264

<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	9	24	106	127	6	8

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	16	67	19	22	30	40	51	19

### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

I learned that manufacturing has many steps and is made to be as efficient as possible. It also requires quality throughout the manufacturing process.

I liked learning about advanced technology and how one facility can manufacture about 400000000 coupons yearly. I loved watching about how ValPak produces coupons and the amount of precision required.

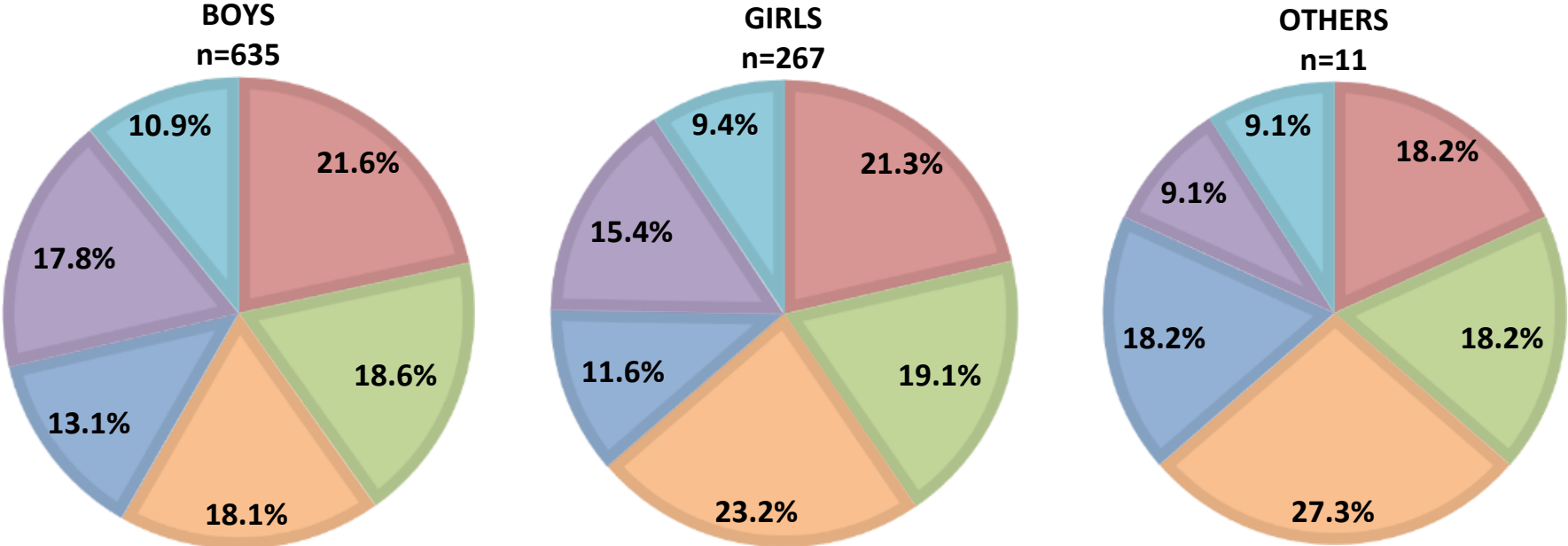
I learned how the carbide tools are cut with a diamond. I also learned about programming the machines.

I learned how Labview is used in the machines to create parts. I also learned about the different jobs in manufacturing and the steps how a product is created.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work
Advanced Technology, Testing, Quality, Precision
Tour Guides Explained Information Well
Hands On Activities, Interactiveness, Real Life examples
Career, Jobs Available, Requirements
Importance of Manufacturing in Daily Life/History

## Florida MFG DAY & Month 2019 Student Survey Results Polk County

**Total # of Tours: 15      Total # of Hosts: 14      Total # of Schools: 14      Total # of Participating Students: 348      Total # of Surveys: 343**

**Participating Hosts:** Coca-Cola, Createch Machine & Design, Dura-cast Products, Givaudan Flavors, ITW Professional, Kegel, Maxpak, Medline, Mid-state Machine and Fabricating, Packaging Corp. of America, Pepperidge Farm, Roome-to-Go, Saddle Creek Logistics, Sofidel America

**Participating Schools:** Auburndale HS, Barton HS, Fort Meade HS, Frostproof HS, George Jenkins HS, Haines City HS, Kathleen HS, Lake Wales HS, McKeel Academy, Mulberry HS, Ridge Community HS, Summerlin Academy, Tenoroc HS, Winter Haven HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	21	108	1	62	149	129	212	341
2. My teachers have talked about advanced manufacturing with my class.	1	67	220	0	16	38	288	54	342
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	1	84	253	0	0	5	338	5	343
4. This tour gave me new information about careers in advanced manufacturing.	1	82	254	0	2	4	337	6	343
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	1	78	241	0	6	17	320	23	343
6. I would recommend that other students have the opportunity of this tour.	1	84	256	0	0	2	341	2	343
7. I am now considering a career in advanced manufacturing.	1	46	170	0	37	88	217	125	342
<b>Total Responses</b>	6	462	1502	1	123	303	1970	427	2397

### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

### 2018 MFG Day Data

<b>119%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>57.4%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>68.2%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 11 # of Hosts: 10 # of Schools: 11 # of participating students: 233 # of total surveys: 186
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\*NR = Not Reported

Surveyed Students	Boys: 258	Girls: 84	Other: 1	TOTAL: 343
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Ethnicity	Asian: 15	Black: 55	Hispanic: 159	White: 112	Other: 5	NR: 10
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Grade	6th: 0	7th: 0	8th: 0	9th: 49	10th: 50	11th: 105	12th: 116	NR: 23
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### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

Understanding what goes into the process of providing parts. Also how many different fields of engineering you can go into.

It was cool to see how all the knowledge I have acquired in my engineering classes can be applied in the real world. It was also cool to learn about advanced manufacturing, a field that I had never heard of before.

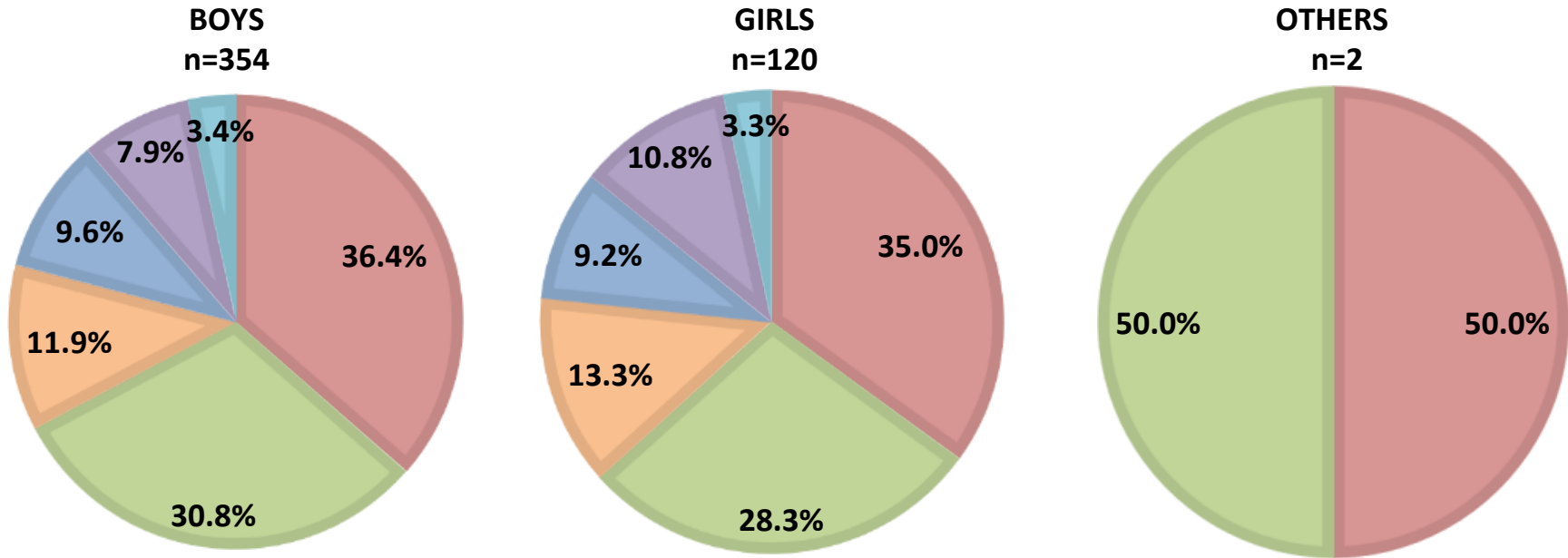
I love meeting the people behind the scene that made these machines. I learned so many things about the people and the machines they produce and work with.

I enjoyed seeing the manufacturing process involved in bowling. I learned quite a bit about both bowling and manufacturing.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Putnam County

**Total # of Tours: 3      Total # of Hosts: 1      Total # of Schools: 3      Total # of Participating Students: 61      Total # of Surveys: 58**

**Participating Hosts: Vac-Con**

**Participating Schools: Crescent City High School, Interlachen High School, Palatka High School**

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	0	30	0	5	23	30	28	58
2. My teachers have talked about advanced manufacturing with my class.	0	3	42	0	2	11	45	13	58
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	4	52	0	1	1	56	2	58
4. This tour gave me new information about careers in advanced manufacturing.	0	5	51	0	0	1	56	1	57
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are	0	4	44	0	1	8	48	9	57
6. I would recommend that other students have the opportunity of this tour.	0	5	53	0	0	0	58	0	58
7. I am now considering a career in advanced manufacturing.	0	3	40	0	2	11	43	13	56
<b>Total Responses</b>	0	24	312	0	11	55	336	66	402

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>2900%</b> Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>33.3%</b> Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>42.9%</b> Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: nr # of Hosts: nr # of Schools: nr # of participating students: nr # of total surveys: nr
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\*NR = Not Reported

Surveyed Students	<b>Boys:</b> 53	<b>Girls:</b> 5	<b>Other:</b> 0	<b>TOTAL:</b> 58
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Ethnicity	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	0	6	24	26	1	3

Grade	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	5	19	18	12	4

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

A lot of electronics are need for machinery, welding, and working together is needed for success.

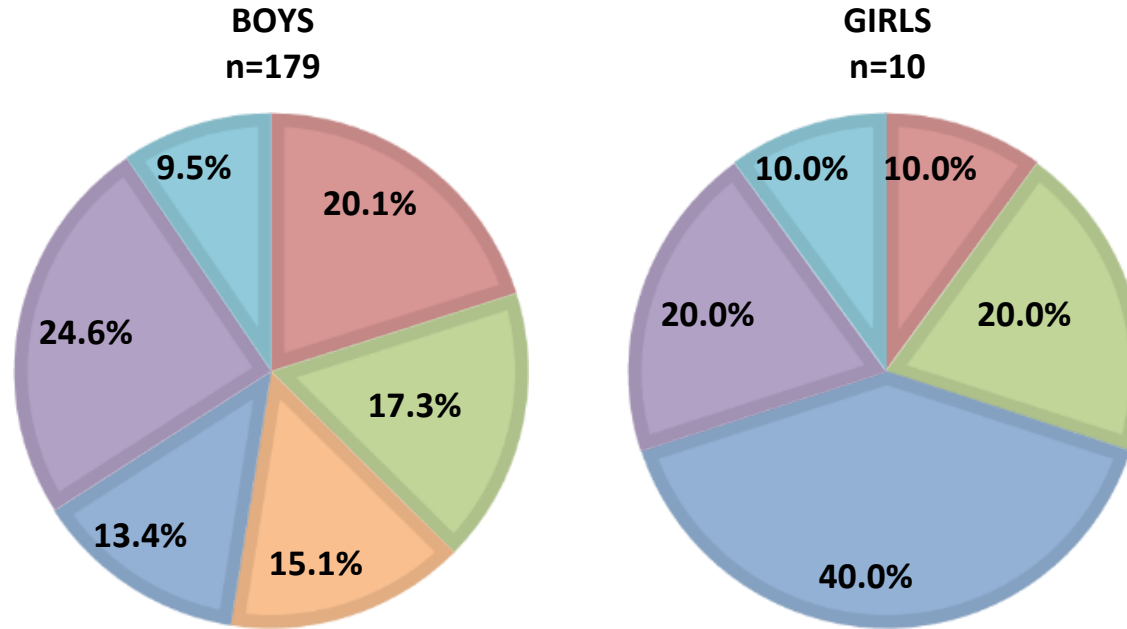
How precise the cutting machines cut the metal and how much the paint cost. Also, I like how its 100% employee owned.

How important the different types of equipment are and also the difference between fabrication and machining.

## Categorized Write-in Responses

### 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



#### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### Sarasota County

**Total # of Tours: 10      Total # of Hosts: 6      Total # of Schools: 9      Total # of Participating Students: 220      Total # of Surveys: 97**

**Participating Hosts:** ASO LLC, Coach House, Mullet's Aluminum Products, PGT Custom Windows and Doors, Tervis Tumbler, Weber Manufacturing and Supplies

**Participating Schools:** Booker HS, Riverview HS, Sarasota HS, Sarasota MS, Suncoast Polytechnical HS, North Port HS, Oakridge HS, Pie View HS, Venice HS

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	4	38	0	12	42	42	54	96
2. My teachers have talked about advanced manufacturing with my class.	0	13	77	0	3	4	90	7	97
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	0	16	78	0	0	3	94	3	97
4. This tour gave me new information about careers in advanced manufacturing.	0	16	76	0	0	4	92	4	96
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are put	0	15	74	0	1	7	89	8	97
6. I would recommend that other students have the opportunity of this tour.	0	16	80	0	0	1	96	1	97
7. I am now considering a career in advanced manufacturing.	0	11	53	0	5	28	64	33	97
<b>Total Responses</b>	0	91	476	0	21	89	567	110	677

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

<b>175%</b>	Increase interest for girls considering a career in advanced manufacturing before and after the tour.	<b>39.5%</b>	Increase interest for boys considering a career in advanced manufacturing before and after the tour.	<b>52.4%</b>	Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.	# of Tours: 21 # of Hosts: 9 # of Schools: 12 # of participating students: 525 # of total surveys: 0
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\*NR = Not Reported

Surveyed Students	Boys:	81	Girls:	16	Other	0	TOTAL	97
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Ethnicity	Asian	Black	Hispanic	White	Other	NR
	7	8	26	68	2	1

Grade	6th	7th	8th	9th	10th	11th	12th	NR
	2	9	10	25	27	8	13	3

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

10-12 million bandages are made at ASO each day.

What I liked most about this tour is seeing what goes into the making of what you would think is just a simple mobile home. Also seeing how the electronics are worked into the car because I would have never known the work and man power that went into the making of these certain quality home models.

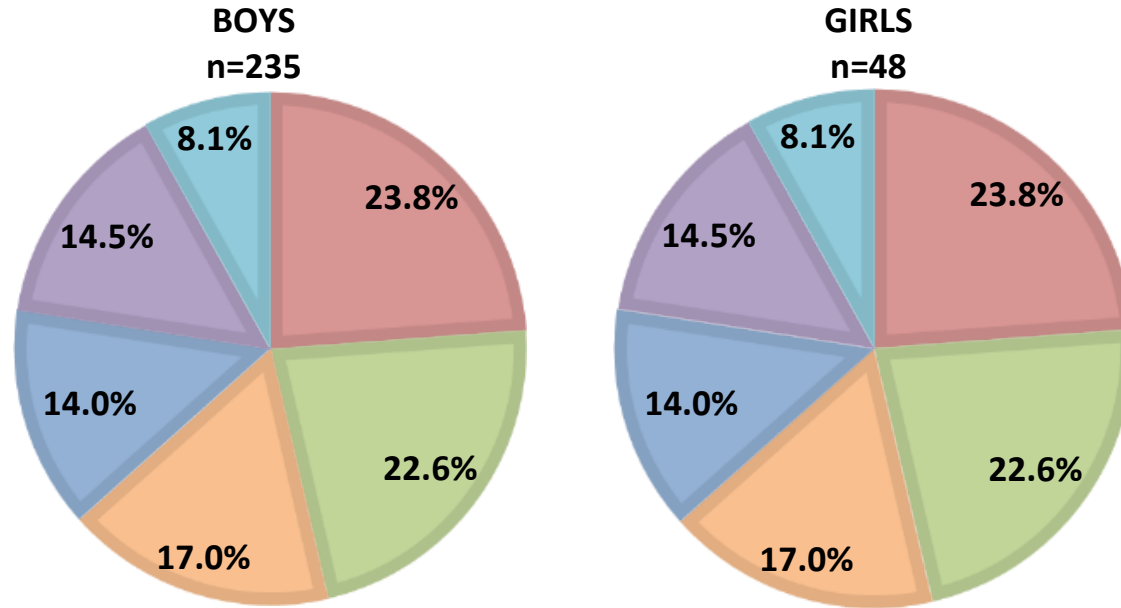
I learned that the company still needs people to check the robots and make more personal designs

I learned how there is much more to manufacturing than just machines. There are people who have to design the products, handle financing, work in human resources. There is a lot that goes into making a single product.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History



## Florida MFG DAY & Month 2019 Student Survey Results

### St. Johns County

**Total # of Tours: 3      Total # of Hosts: 3      Total # of Schools: 3      Total # of Participating Students: 65      Total # of Surveys: 19**

**Participating Hosts: Carlisle IT, Q-Pac, Rulon International**

**Participating Schools: Allen D. Nease HS, Creekside HS, Pedro Menendez HS**

Post Tour Survey Questions	Yes Other	Yes Girls	Yes Boys	No Other	No Girls	No Boys	Total Yes	Total No	Total Responses
1. I was considering a career in advanced manufacturing before the tour.	0	1	6	1	3	8	7	12	19
2. My teachers have talked about advanced manufacturing with my class.	1	4	13	0	0	1	18	1	19
3. Today I learned about technologies used in advanced manufacturing industries and manufactured	1	4	14	0	0	0	19	0	19
4. This tour gave me new information about careers in advanced manufacturing.	1	4	14	0	0	0	19	0	19
5. The tour helped me understand how STEM subjects (science, technology, engineering and math) are	1	4	12	0	0	2	17	2	19
6. I would recommend that other students have the opportunity of this tour.	1	4	14	0	0	0	19	0	19
7. I am now considering a career in advanced manufacturing.	0	4	11	1	0	2	15	3	18
<b>Total Responses</b>	5	25	84	2	3	13	114	18	132

#### Advanced Manufacturing Perception Impact - Question Comparison for 1. & 7.

#### 2018 MFG Day Data

**300%** Increase interest for girls considering a career in advanced manufacturing before and after the tour.

**83.3%** Increase interest for boys considering a career in advanced manufacturing before and after the tour.

**114.3%** Increase interest for both boys & girls considering a career in advanced manufacturing before and after the tour.

# of Tours: 1  
# of Hosts: 1  
# of Schools: 1  
# of participating students: 25  
# of total surveys: 0

\*NR = Not Reported

<b>Surveyed Students</b>	<b>Boys:</b> 14	<b>Girls:</b> 4	<b>Other:</b> 1	<b>TOTAL:</b> 19
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<b>Ethnicity</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>	<b>NR</b>
	6	5	7	5	2	0

<b>Grade</b>	<b>6th</b>	<b>7th</b>	<b>8th</b>	<b>9th</b>	<b>10th</b>	<b>11th</b>	<b>12th</b>	<b>NR</b>
	0	0	0	8	6	1	2	2

#### 8. Here are some statements from students about one thing they have learned about Manufacturing that they didn't know before.

There are many advanced machines that do a lot of jobs. There are also a lot of different job roles needed for just one project.

I learned about the process the wood goes through when it's being manufactured. We also got the opportunity to look at the 3D printer.

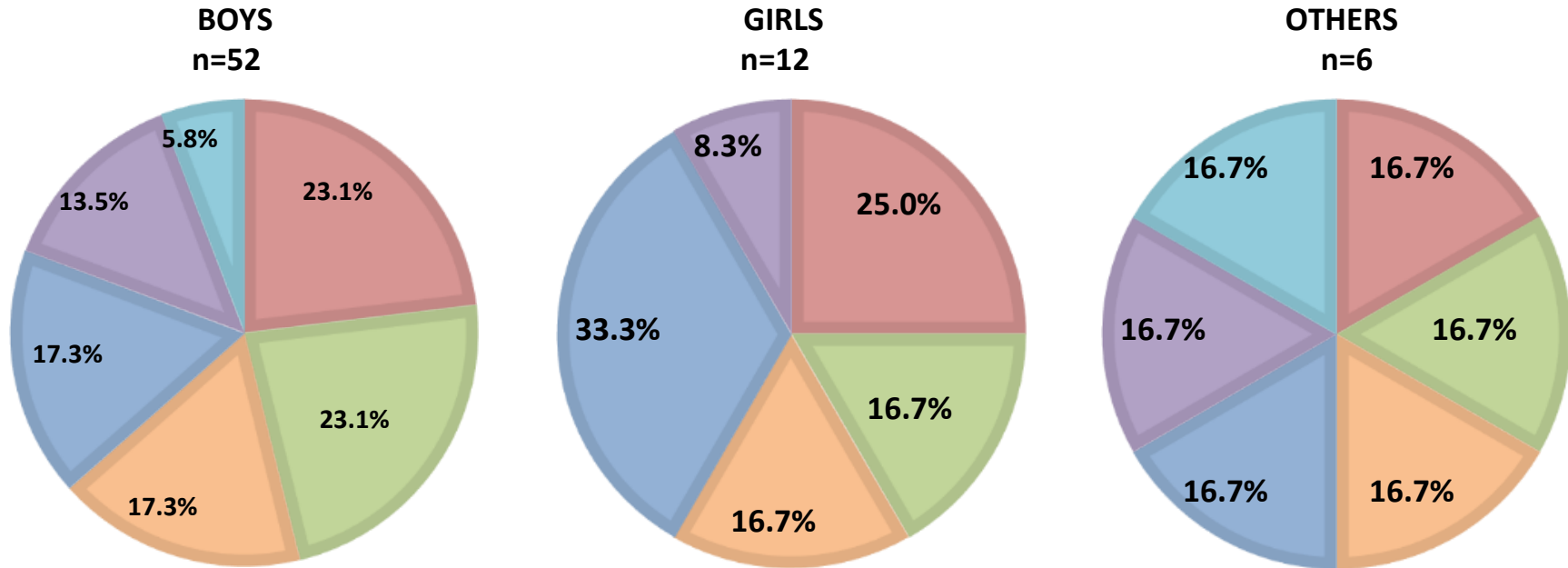
Today I learned in detail about the processes required in order to engineer and manufacture the acoustic wooden paneling and ceiling. It is quite incredible the amount of time and money that goes into making a single panel.

I have learned all of the processes needed to refine the wood for use as well as the varieties of wood products and their uses.

# Categorized Write-in Responses

## 9. What did you like most about this tour? (Please select all that apply)

\*n = Total number of responses based on gender



### Color Code Legend:

Learning about machines and how they work

Advanced Technology, Testing, Quality, Precision

Tour Guides Explained Information Well

Hands On Activities, Interactiveness, Real Life examples

Career, Jobs Available, Requirements

Importance of Manufacturing in Daily Life/History