

ASME Diversity Action Grant Report

ASME student sections that receive funding through the Diversity Action Grant (DAG) program must complete and submit this report to ASME'S DAG Review Committee by no later than June 3 of the academic year in which the support was granted. Any unused funds must be returned to ASME with the report. ASME student sections that fail to submit a timely report may not be eligible to receive DAG funding for future proposals.

The outline below is the minimum required info your report should include. Additional information regarding the project, including photographs, copies of marketing materials and additional text, may be included with this project report.

NOTE: if there are personal details you do not want included when reports are published on-line, please specify and it will be removed (i.e. names, contact info).

PICTURES: if you are including photos, please be sure to include in your email that ASME has permission to use and post the images on its website.

Date: 05/30/2015

Student Section: Gannon University

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Summary of DAG Project

ASME DAG Funding: \$ 1500 Total Project Budget: \$ 2323.68

Partnering Organizations: SWE

Attendance: Total 68 Women 30 Minorities 12 (not including volunteers)

ASME Section/Region Reps

ASME Diversity Action Grant Report

Project Title__ME Day_____

Project Description: __Three activities

1. Watercraft

2. Trolley

3. Bridge

Project Goal/Objective and How Achieved: _____

_____See Report _____

Evaluation of Program's Success:

_____See Report _____

Other Comments/Observations/Pertinent Info:

See Report

Design your report visually as you see fit.

Title your file and email:

Your Student Section name, Report, DAG2014 (for example: UHawaii Report DAG2014). Abbreviate words like "university", "college", "state"; eliminate "of". Don't abbreviate words like "Michigan", "Maryland" or "Missouri".

Email attachment to: diversity@asme.org

ASME Diversity Action Grant Report

Project Description and Summary:

On March 13, 2015, the ASME Student Chapter with the SWE student Chapter, the Mechanical Engineering faculty and staff of Gannon University hosted the Mechanical Engineering Days at Gannon University. Sixty four middle school students and three teachers participated in the event. The students came from a single school (7th and 8th grade) from City of Erie that has many underrepresented kids.

The middle school students arrived at 8:30 a.m. and were greeted by the Vice President and Provost of Academic Affairs at Gannon University, Dr. Carolyn Masters and by the Dean of the College of Engineering and Business, Dr. William Scheller; the past Chair of Mechanical Engineering Department, Dr. Scott Steinbrink; the ASME student Chapter President, Mike Benes. Dr. Karinna ran the program. This year we have almost 40 volunteers,

The participants then rotated through three activities showcasing different aspect of mechanical engineering. These activities were:

1. Bridge: This activity will test the designing and building techniques of each group. A good design is needed in order to construct the bridge carry the most load out of the machine elements given.
2. Watercraft: The students had to design and build a boat out of straws and plastic wrap that could hold 50 or more pennies for at least 10 seconds before sinking.
3. Trolley: This exercise allowed students to build a trolley out of ordinary material to carry a payload from one end of the rope to the other end of the rope. Trolley was attached to balloons to carry it from one end to other use air power. The fastest time and carrying the most weight was the winner.

In addition to the activities, the middle school students had lunch at the University's cafeteria and interacted with undergraduate students and faculty in a personal level.

Project Goal/Objective and How Achieved:

The overall goal of this project was to hold again a "Mechanical Engineering Day" at Gannon University this year. The objectives of the "Mechanical Engineering Day" were to establish an effective program to attract a larger population of middle school students and minorities and women students to the mechanical engineering field, and to inspire middle school students to consider mechanical engineering/engineering as a future career.

The goal/objectives were achieved and met. During this year's Mechanical Engineering Day, Gannon University student members of ASME and SWE, supervised and supported by faculty of the Mechanical Engineering Department, hosted middle school students in the various engineering/mechanical engineering related activities, as described in more detail in the above Project Description and Summary section. The middle school students got the opportunities to participate in conducting different mechanical engineering experiments guided by college students showcasing different aspects of Mechanical Engineering. They also got the chance to learn about engineering, to hear about the possible mechanical engineering careers, and how engineers impact daily life.

Discussion and Other Comments/Suggestions:

ASME Diversity Action Grant Report

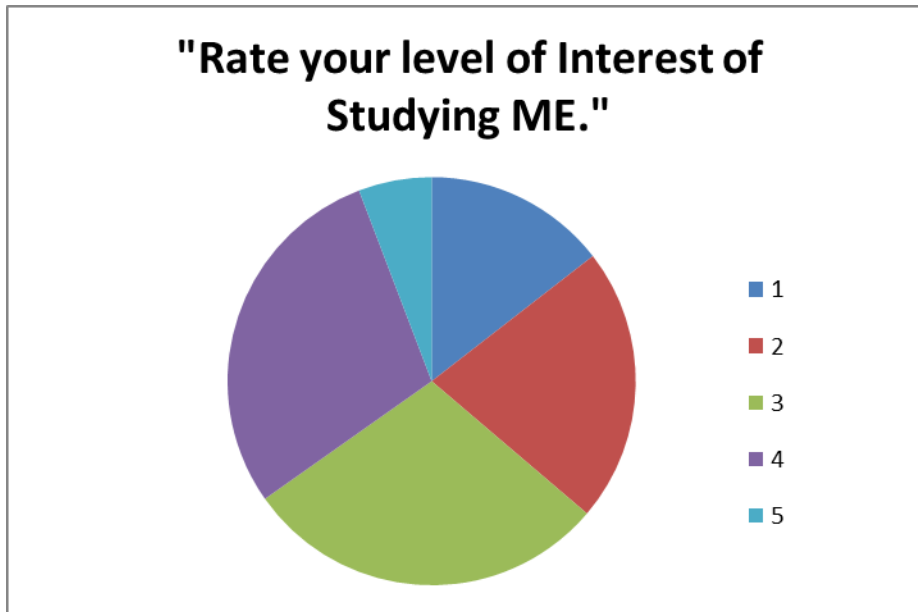
The activities ran smoothly. From the surveys (refer to Evaluation of Program's Success), it is clear that the participants enjoy the activities and that they learned about engineering.

Conclusion

The Mechanical Engineering Day was a success again this year. Undergraduate students enjoyed teaching middle school students. The middle school students learned about engineering; and they think, according to the survey, that engineering is fun and could be considered as a possible career. Trolley test was considered the most enjoyable activity.

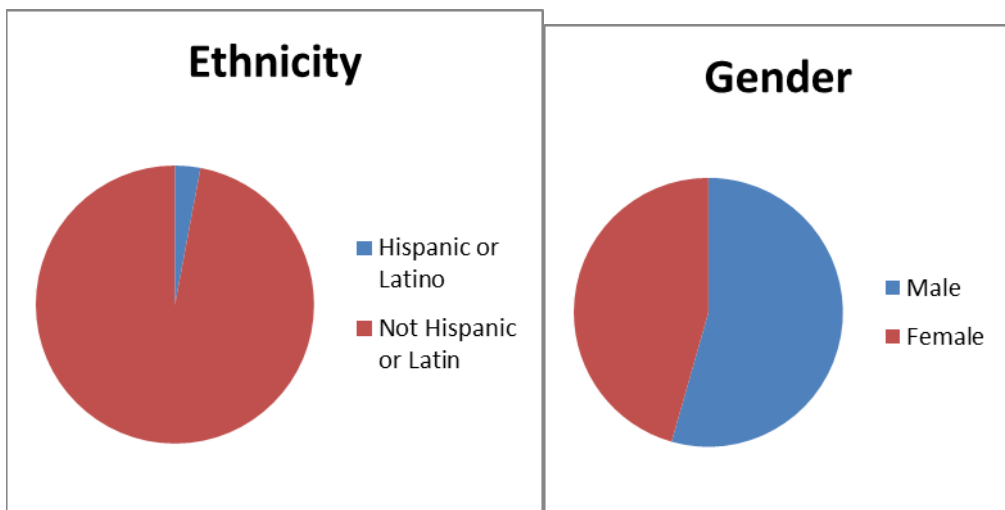
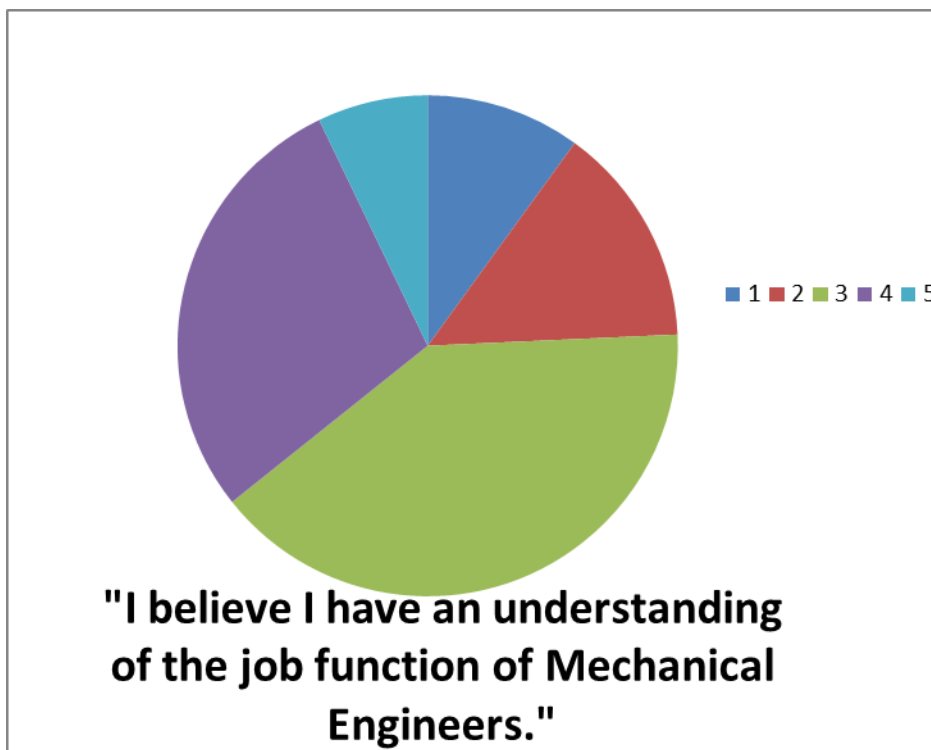
Evaluation of Program's Success:

Students were surveyed at the beginning of the program and then at the end of the program to see how students changed their perception of engineering after the exercises. First survey at the entrance is presented and then the exit survey is presented.

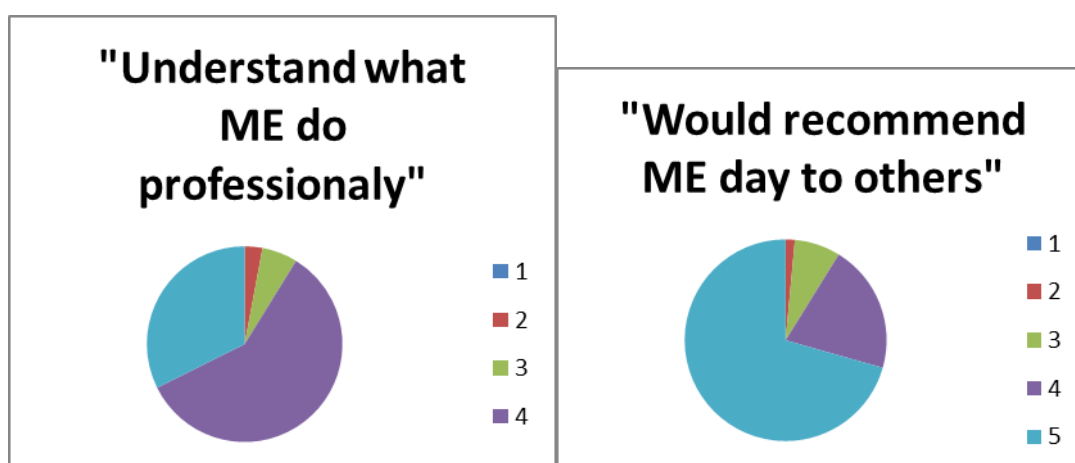
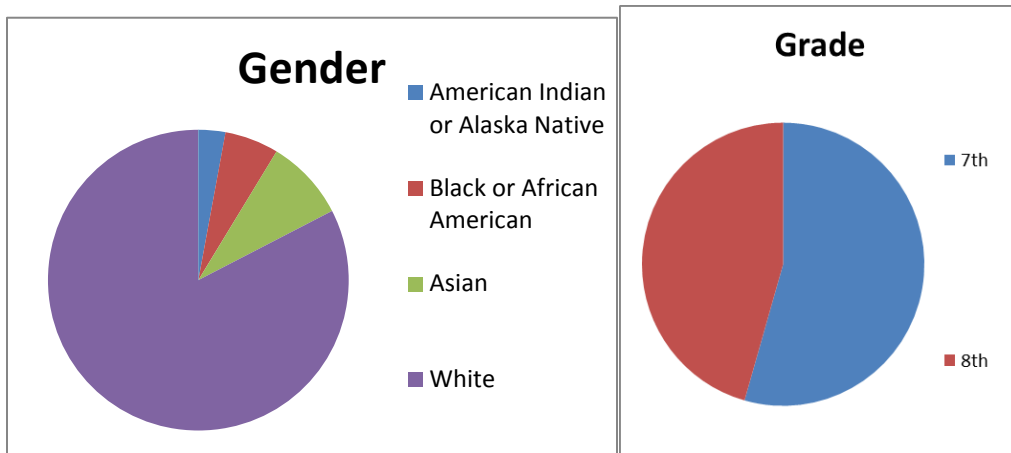


This was taken before the program started. Next figure compares this after the program was completed. As you can see they got much more awareness of engineering and ME in particular.

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Male/Female		Ethnicity		Race					Grade		I believe I have an understanding of the job function of Mechanical Engineers (1=Very Little, 5=Very Much)					If you expect to attend college, rate your level of interest in studying ME. (1=Very Little, 5=Very much)				
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Mechanical Engineering Day

Tentative Agenda March 13, 2015

- | | | |
|-----------------------|---|------|
| 8:15- 8:45 AM | Registration and breakfast (Yehl Room) | |
| 8:45 –9:00 AM
Room | Welcome
<ul style="list-style-type: none"> • Dr. Carolyn Masters, Provost and Vice President, Gannon University • Dr. William Schellor, Dean of College of Engineering and Business • ASME and SWE Presidents | Yehl |

9:00 - noon Activities

	Watercraft	Trolley
Bridge		
• 9:00 - 9:55 am	G1	G2
• 10:00 - 10:55 am	G2	G3
• 11:00 - 11:55 am	G3	G1
	G1	
	G2	

12:00-1:00 pm Lunch (Cafeteria)

ASME Diversity Action Grant Report

1:00 – 1:15 pm	Admissions Talk
1:20- 1:45 pm	Video: <i>Mothers of Invention</i>
1:45 - 2:20 pm	Survey, Certificates and Prizes
2:20 pm	Departure

Expense Report

The Mechanical Engineering Day had a total cost of \$2,323.68. The Mechanical Engineering Department and ASME Student Section of Gannon University contributed with \$309.88 and the Admission of Gannon University contributed with \$513.80 and a local company contributed \$400 in transportation cost. The following table presents the expenses incurred during the Mechanical Engineering Day.

ASME Diversity Action Grant Report

TOTAL REQUESTED FROM DIVERSITY GRANT		\$1,500.00
Description	Supplier	Amount
79 t-shirts for participants	Creative Imprints	\$555.10
Go for Engineering Magazine	SWE Bookstore	\$59.92
Eggs, ziplock bags, towel paper	Dollar General	\$33.51
Straws, Candy, Gorilla Tape, Dixie Cups	Walmart	\$72.01
Gift Certificates (Fifteen at \$10.00)	Barnes and Nobles	\$150.00
Color paper for activities	Sam's club	\$17.64
43 T-shirts for volunteers		\$299.20
Transportation of middle school students		\$150.00
Lunch at (\$5.25 / per person) - 90 participants	Gannon's Cafeteria	\$472.50
Subtotal		\$1,809.88
Breakfast (\$5.35/ per person) - 70	donated by Admissions	\$374.50
Lanyards - donated by Admissions (70)		\$139.30
Contributions		\$513.80
TOTAL COST OF EVENT		\$2,323.68
ME department contribution		309.88
Total Gannon contribution		\$823.68
ASME contribution		\$1,500.00

By no later than June 1, submit this report to:
ASME Center for Leadership & Diversity
Attn: Marina Stenos
Three Park Avenue
New York, NY10016-5990
Tel: 1.212.591.8614
Fax: 1.212.591.7856
stenosm@asme.org