

2024-2025 IMPACT REPORT

Engineering Ambassadors Network

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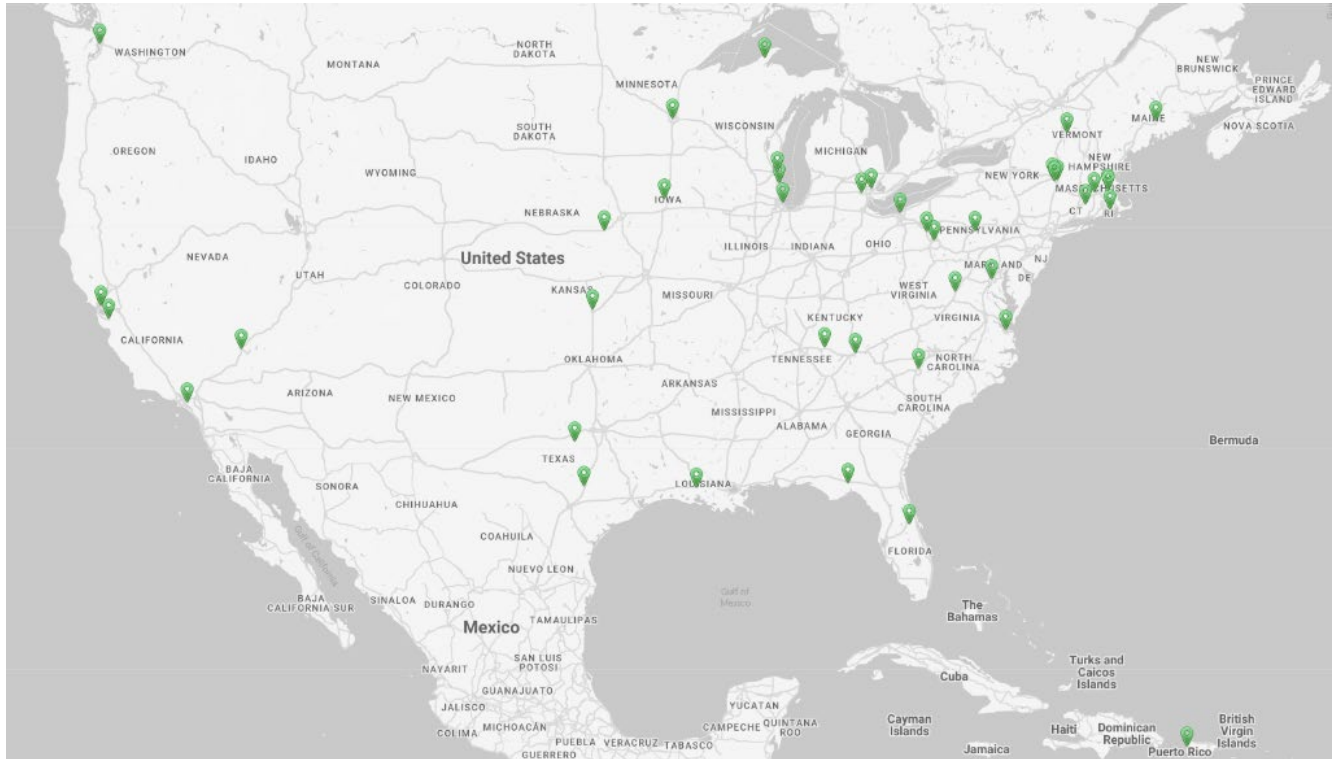
2024-2025 Academic Year Impact Report

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Current State of the Network

There are 41 total programs across the nation and in Puerto Rico. 6 programs are currently not active (Eastern Michigan, UC Fullerton, University of North Carolina, Union College, Milwaukee School of Engineering, and University of Washington).



Workshops

Northeast

Rensselaer Polytechnic Institute hosted 195 people from 11 different programs. 125 new ambassadors were trained.

Southeast

The University of Florida A&M/Florida State University was prepared to host. Unfortunately, hurricanes Helene and Milton hit one week apart causing the workshop to be a burden on the community. The workshop was canceled. There were 27 people registered from 3 different programs. 22 new ambassadors would have been trained. UCF participated in a virtual option where 10 new EAs were trained as an alternative.

Midwest

The University of Minnesota hosted 36 people from 5 different programs. 22 new ambassadors were trained.

West Coast

It was not scheduled for this academic year.

Fall Workshop Data

For the fall 2024 workshops, a pre- and post-workshop self-evaluation was created to get participants thinking about their skills and reporting their outcomes. This evaluation assessed seven skills and the participants' overall communication skills. Participants were asked to rate the increase in their skill level on a range of 0 to 3, with 0 = did not increase, 1 = slightly increased, 2 = moderately increased, or 3 = greatly increased. Evaluations with missing data in more than one area were considered incomplete and were removed from the dataset, resulting in 72 complete evaluations out of the 147 newly trained ambassadors in attendance for a response rate of 49%.

Participants were asked to state their most significant learning experience during the workshop. The data was evaluated, and nine themes were found. Each response was assigned one category. Themes include breaking down concepts, teamwork, confidence, time management, AE presentation style, receiving feedback, networking, listening skills, and awareness of audience background.

Table 1*Participants' Self-Reported Skill Level Post-Workshop*

Items	<i>M</i>	<i>SD</i>
My ability to effectively communicate verbally	2.15	0.76
My ability to provide constructive feedback	1.78	1.01
My ability to receive constructive feedback	2.36	0.77
My ability to understand the impact of non-verbal communication (i.e., body language)	2.18	0.76
My value of effective listening	2.06	0.85
My knowledge of effective facilitation strategies	2.19	0.87
My ability to state my point of view in a group dynamic	2.00	0.99
My overall communication skills	2.27	0.86

NOTE: $n = 72$ **Table 2***Participants' Most Significant Learning Experience*

Theme	Percentage
AE presentation style	20
Breaking down concepts	14
Confidence	10
Other	15

Future workshops

The Northeast workshop will be held September 19-21, 2025, at Pennsylvania State University.

The Southeast workshop will be held September 26-28, 2025, at Florida A&M University/Florida State University.

The Midwest workshop will be held October 26-28, 2025, at the University of Minnesota.

The West Coast workshop will be held in 2026.

Spring Conference

Held at the Penn Stater Hotel and Conference Center Feb. 28 - March 2, 2025. 213 students and staff from 22 different programs were in attendance.

Table 3

Spring Conference Participants

Participant Type	<i>n</i>
Students	181
Ambassadors	175
ROTC Students	10
Pipeline Students	6
Other	32
Guests/Speakers	19
Program Advisors	13
Total	213

There were 12 breakout session options available spread across 3 time slots. In addition, a morning keynote session, a hands-on keynote session focusing on Engineering and Art, and an ROTC team-building activity in larger time slots were offered.

Table 4 shows the average reported increase in the students' ability by skill level. On average, participants reported moderately increasing their skill levels in all seven categories with a low level of standard deviation.

Table 4*Participants' Self-reported Skill Level Post-Conference*

Items	<i>M</i>	<i>SD</i>
My ability to effectively communicate verbally	1.90	0.66
My ability to provide constructive feedback	1.60	0.93
My ability to receive constructive feedback	1.62	0.94
My ability to understand the impact of non-verbal communication (i.e., body language)	1.74	0.92
My value of effective listening	2.04	0.74
My knowledge of effective facilitation strategies	1.88	0.85
My ability to state my point of view in a group dynamic	1.83	0.71
My overall communication skills	2.07	0.68

***n* = 108**

Table 5 shows the most significant learning experience that participants reported during the conference. The two biggest learning experiences were team building and networking. These results are in line with the main purpose of the conference. Offering an hour-long hands-on ROTC leadership activity and asking each break-out session to mention how communication is important in leadership, regardless of the level of the leader, were intentional considerations given when designing the conference that led to these outcomes.

Table 5*Participants' Most Significant Learning Experience*

Theme	<i>n</i>
Presentation Skills	9
Other/Broad Leadership	13
Emotional Intelligence	14
Networking	15
Team Building	18
Communication	19
Blank	20

Response Examples by Category

Presentation Skills: “The assertion evidence session was my most significant learning experience, and I plan on applying the template and tips to future presentations that I create.” And “It was the Assertion Evidence Workshop and I plan to apply it by being more mindful of how I make a story through my presentations.”

Other/Broad Leadership Skills: “The most significant was learning about different leadership styles and able to compare it to the leadership I currently have at my company while on my co op. I plan to apply this in my life by ensuring that I use the different leadership styles when I’m a group setting as needed.” And “How to destress using art or other creative outlets. I’m hoping to use the exercise we did more often or on a more regular basis to destress”.

Emotional Intelligence: “I really appreciated hearing about how to handle my feeling and emotions but also listening to others. I liked how it was more general but also tied into the <difficult> conversations...” And “I think learning to empathize with the person you might be having a conflict with can allow you to understand where they are coming from before you dismiss their points.”

Networking: “I have learned the importance of gaining ideas from other students, I hope to keep communicating with my peers to reevaluate my ideas.” And “Learning how to better network and connect with a lot of new people. This is important as effective networking is massive for career success.”

Team Building: “I liked the ROTC activity where we did team building exercises and worked together reach our goal. I think that doing activities like this with leadership teams, especially newly formed ones, is helpful for everyone to get to know each other and work together. I think that we could apply this to UConn's EA program by doing a team building retreat or activity prior to each semester.” And “Different types of leadership strategies, will help me through group dynamics in work.”

Communication: “...Additionally, the leadership and communication activities with the ROTC were very helpful in exercising problem solving in difficult team communication.” And “Learning how to talk about difficult topics and how I can improve the EA I'm in currently.”

Outreach

28 programs reported data for the 24-25 academic year. The EAN reached 64,621 K-12 students. Fall 2024 was a record semester, doubling the number of students we interacted with last year (see Table 6). Half of the events are on campus and half are off campus.

Table 6

Number of Student Interactions by Semester

Semester	# of Students
Fall 2024	33,678
Spring 2025	30,943
Total	64,621

Each event was placed into a grade level category. Most of the outreach was at the high school level.

Table 7

Events by Grade Level

Grade Level	<i>n</i>	<i>% of total events</i>
Elementary (PK-5)	287	29.9
Middle (6-8)	254	26.5
High (9-12)	370	38.6
All ages (PK-12)	31	3.2
College	17	1.8

Table 8*Events by Type*

Type of event	<i>n</i>	<i>% of total events</i>
Presentation and Hands-on Activities	685	71.4
Outreach presentation/Classroom Visit	447	46.6
After-school club/group	121	12.6
STEM event/fair	98	10.2
Mentoring activity	19	2.0
Recruitment/Information Providing	255	26.6
Dean or College Event	68	7.1
Virtual Event	64	6.7
On-campus tour	63	6.6
Career day/event	46	4.8
Panel event	14	1.4
Other	19	2.0

Quotes from the class of 2025

Graduating ambassadors shared what they gained from being an engineering ambassador. The following are an sample of the responses:

"I have gained a heightened awareness of myself, the words I choose, and the impact I have the opportunity to have. Also, I gained a true passion for an organization and for leading people. I got to work on my leadership style and how to implement new ideas to make new members feel welcome and get them up to speed."

"Being a part of EA allowed me to connect with other STEM students across the country and gave me many great memories to look back upon of all the people I met through this program. EA also helped me build my confidence and communication skills by giving me an opportunity to share so much of what I have learned in college to create meaningful impact for students in my community. I'm so grateful to have been a part of this program!"

"Through EA, I gained a community and people like me who wanted to make a different. Also, professional development. EAN has great networking and career resources."

"[A]s an engineering ambassador, I gain more social skills. Prior to joining I was a little shy, especially speaking to new people, but now I have no issues starting up conversations with random people."

"I learned how important networking is and how networking with different people is what you really need to succeed in this world."

"[I gained] an opportunity to inspire kids, especially those who might not have the opportunities many of us have had. I also gained a supportive network of people who are rooting for me in my peers and in my bosses."

"I was able expand on my presentation skills, especially with presenting things on the fly. Additionally, I learned how to format my presentations."

"From being an engineering ambassador, I've learned to talk to various different people from different backgrounds: middle and high school students, high school teachers, parents, grad students, and professors. This has allowed me to work on my communication skills and change how I say certain things to different audiences."

"I've learned how to work on and support different engineering majors. Learning their majors, reasons for college, and how they express themselves to others. By learning how to understand my peers, I've learned how to better understand other people I come into contact with, including myself."