



# IMPACT REPORT

## 2025 LLT STEMpower Summer Camp



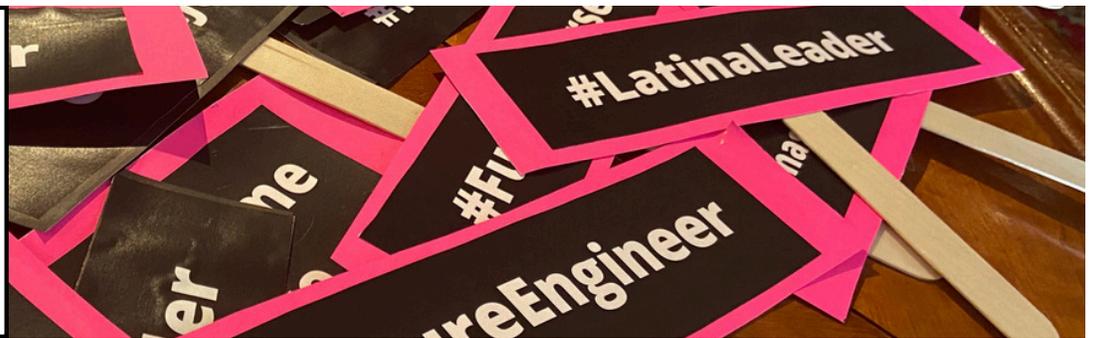
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# Introduction

Formerly known as Latinas Lab / Science, Technology, Engineering, and Mathematics (STEM) program, LLT STEMpower was originally launched as a pilot from 2014 to 2017 in Arlington, VA by Latinas Leading Tomorrow (LLT). Due to COVID restrictions, from 2021 through 2023, the program successfully transitioned into a virtual format, expanding its reach to include students across the DMV region.

LLT STEMpower is designed to inspire and expose middle school students to STEM topics and career pathways while cultivating a fun, culturally relevant learning environment. Minority women represent only 22.7% of the STEM workforce, of which less than 3.9% are Latinas. Contributing factors include a lack of early STEM exposure, few culturally relevant role models, and financial barriers to enrichment programs. Research from the National Academies, emphasizes that mentorship—especially culturally responsive mentorship—is crucial for improving inclusion and retention of minority women in STEM (2019). LLT STEMpower addresses this gap by intervening early, affirming cultural identity, and providing accessible pathways into STEM. LLT STEMpower is designed to inspire and expose middle school students to STEM topics and career pathways while cultivating a fun, culturally relevant learning environment.

By offering access to STEM labs, interactive projects, university settings, and role models, the program continues to open doors, whether that means igniting a future in STEM or helping students realize that barriers can be overcome. After a successful return to in-person programming in 2024 at Marymount University, the program grew even further in 2025 with expanded community partnerships and student engagement.

Marymount University again hosted the 2025 cohort at its main campus in Arlington, VA, where LLT offered two dynamic weeks of LLT STEMpower Camp. Forty-five middle school girls from across the District of Columbia, Maryland, and Virginia (DMV) participated in an immersive learning environment that combined hands-on STEM exploration with leadership development, cultural affirmation, and personal empowerment.

From engineering challenges and coding labs to environmental science fieldwork and conversations with Latina STEM professionals, every activity was intentionally designed to spark curiosity, build confidence, and help campers see themselves as future innovators, problem-solvers, and change-makers. The camp fostered not only academic growth but also a strong sense of community and identity, ensuring that each student left with both new skills and the belief that they belong.



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## **Our Impact & Acknowledgments**

Measurable results, student reflections, and recognition of partners, mentors, and supporters who made the camp possible.



## EXECUTIVE SUMMARY

The LLT STEMpower Camp inspires middle school youth to explore STEM in fun and engaging ways, helping them discover their talents and build confidence. The program connects students with successful Latina role models who serve as mentors, encouraging them to envision themselves in STEM careers. By breaking down traditional barriers, the camp opens doors to new opportunities and pathways in STEM.

Students left STEMpower more confident, curious, and motivated. They showed clear gains in STEM skills, leadership, and cultural pride, while also expanding their horizons through hands-on projects and mentorship. Interest in technology, coding, and science surged, with many students reporting stronger enjoyment and engagement. At the same time, existing strengths—such as, peer friendships, adult support, and future aspirations—remained strong, reinforcing the program’s impact on both growth and empowerment.



# Our Team

The STEMpower Committee successfully planned and implemented the LLT STEMpower Camp Program with support from the LLT Board of Directors.



## LLT Board of Directors



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Board Member

## LLT STEMpower Camp Committee

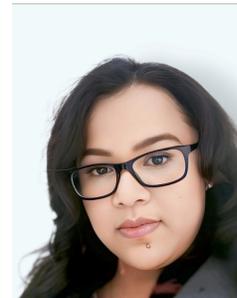
## LLT Operations



María Sol Catana  
Treasurer



CDR Cristina Dar  
STEMpower Camp



Cintya Flores  
Executive Director



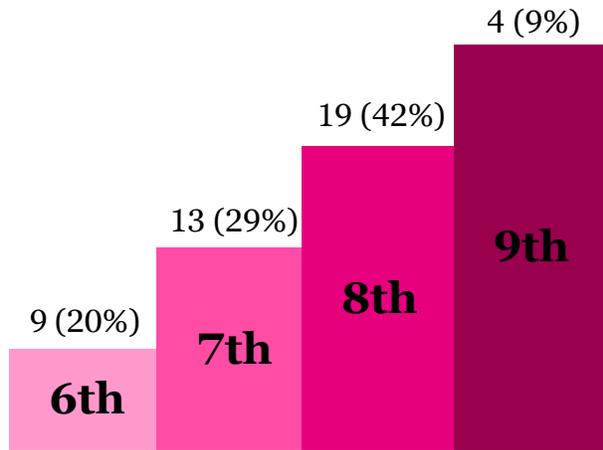
Maria Alejandra Martinez  
Program Coordinator



# LLT STEMpower Camp Cohort 2025

Our participants consisted of 37 young Latinas from middle schools across the DC metropolitan area. This year, we welcomed all applicants who could commit to the program, reflecting a strong interest in STEM among local students—62 girls applied in total. Applications opened on April 2nd, 2025, and closed on July 6, 2025. LLT accepted participants on a first-come, first-served basis. Professors at Marymount University administered the program, providing mentorship and guidance throughout the summer.

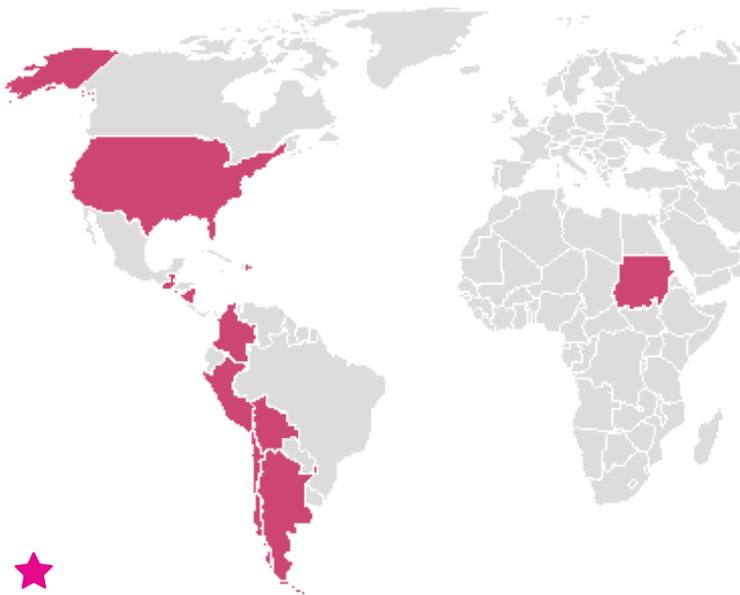
## Girls' Rising Grade Distribution



## Schools Represented

- ★ Acellus Academy
- ★ All Saints Catholic School
- ★ Auburn Middle School
- ★ Bull Run Middle School
- ★ DC International School
- ★ Dorothy Hamm Middle School
- ★ Frost Middle School
- ★ Graham Road Elementary School
- ★ Gunston Middle School
- ★ Hallie Wells Middle School
- ★ Hayfield Secondary School
- ★ Holmes Middle School
- ★ Immanuel Christian School
- ★ Kenmore Middle School
- ★ Lake Braddock Secondary School
- ★ Melwood Elementary
- ★ Pennington Traditional School
- ★ PGCPS Online Campus
- ★ Rosa Parks Elementary
- ★ St. Francis of Assisi Catholic School
- ★ Thomas Jefferson Middle School
- ★ Wakefield High School
- ★ Yorktown High School

## Countries Represented



## Welcome Remarks by LLT's Featured Guest Speaker, Dr. Irma Becerra, PhD, President of Marymount University

Dr. Becerra delivered an inspiring message to students, encouraging them to chart their own path, work hard, persevere, and enjoy the ride.



## Technical Applications/AI with Dr. Alex Mbaziira



With the help of two rising high school students, Dr. Alex Mbaziira demonstrated the power of AI, by having the students create their own websites. They showed how AI can generate images from prompts, with more detailed instructions producing more refined results. The students enjoyed combining their imagination with AI to design unique creations.

## Biology: Turtle Trapping & Animal Conservation with Dr. Todd Rimkus

Turtle Trapping included a field trip to Huntley Meadows, located in Alexandria, where Dr. Rimkus is working with the University to safely relocate turtles ahead of a construction project at the pond. The students saw in real time how the turtles are captured, relocated, and tracked with the help of a tracking chip.



## Sustainability & Biology with Dr. Katie Sprinkel



Students explored the concept of sustainability and its three pillars: environment, economy, and equity. This knowledge inspired hands-on projects in biology and environmental science, from designing water filtration systems and mini water mills to addressing real-world challenges around food, water, and renewable energy!

## Cell and Molecular Biology: DNA Extraction with Dr. Susan Agolini

Students collected samples from the Ozone Plot Against Hunger garden to examine under microscopes and record their observations. They also gained experience with laboratory equipment while extracting DNA from spinach.



# LLT STEMpower Camp Curriculum

## Biomedical Engineering: Tissue Engineering with Dr. Shama Iyer

Students designed and ran gels to learn how current runs through different mediums, sparking curiosity about the intersection of biology, technology, and innovation. The session also included an engaging activity around non-edible tissue engineering, allowing students to explore how engineers are pushing boundaries to create solutions that can transform medicine and human health.



## Chemistry: “The Magic of Chemistry” with Dr. Pabitha Gnanamani



Students created “explosive elephant toothpaste,” launched rockets with citric acid and baking soda, and even discovered iron hidden in their breakfast cereal. Working in teams, students conducted their own experiments while exploring the direct connection between food and chemistry.

## Math: “Mathematics Behind Games” with Dr. Jacquie Rische

Students engaged in fun, brain-boosting probability games that blended learning with laughter. Through these activities, they sharpened their problem-solving skills, discovered how math applies to everyday challenges, and experienced firsthand how numbers can make games both exciting and educational.



## Final Presentations and Certificates



Students worked in teams to create presentations on their favorite LLT STEM camp topics, which they then shared with parents, LLT staff, and instructors in English and Spanish. LLT recognized each student’s efforts with a certificate of completion.

# Our Impact in Photos



The LLT STEMpower Camp engaged middle school students in an immersive, two-week experience designed to introduce them to diverse STEM careers through interactive, hands-on activities. Throughout the program, participants explored innovative projects that ignited their curiosity, strengthened their confidence, and affirmed their potential to pursue STEM pathways aligned with their passions.



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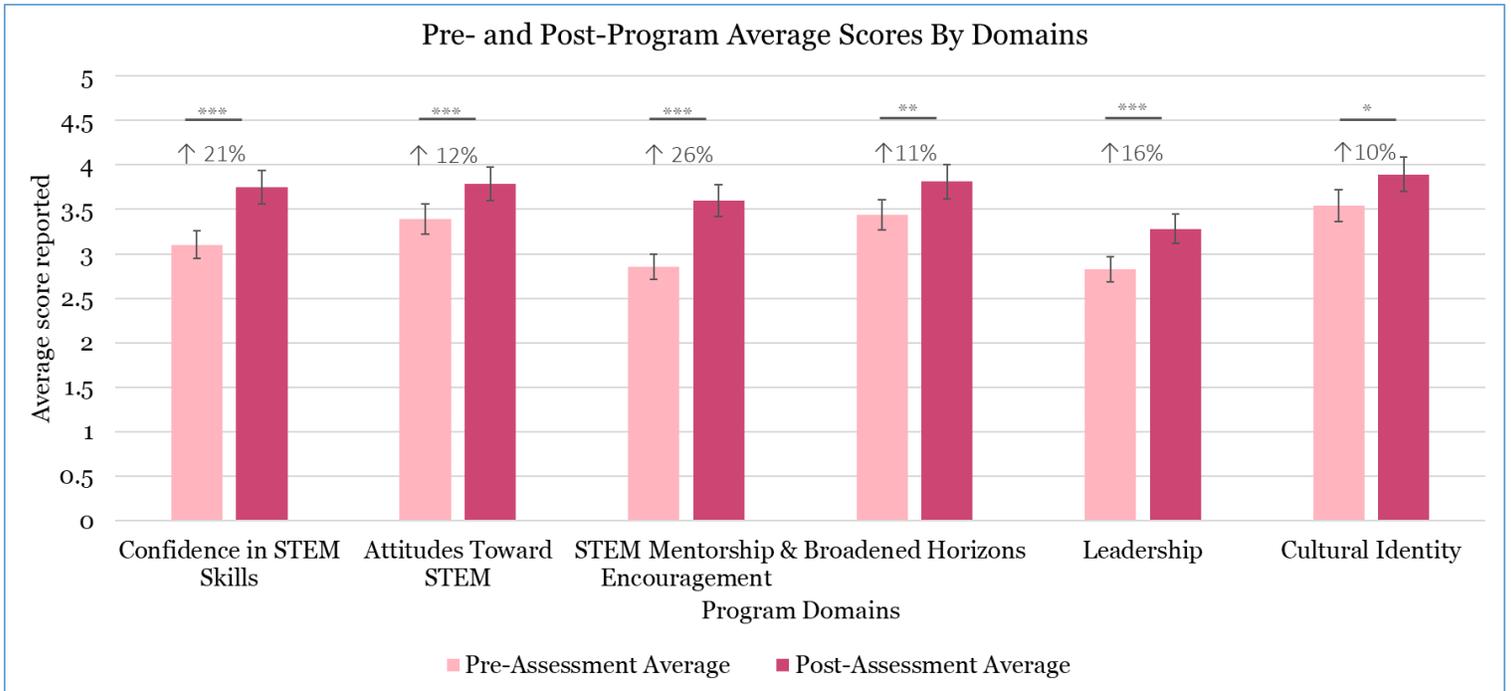
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# Our Impact in Numbers

Participants completed pre- and post-program surveys to assess changes in STEM confidence, interests, and support, as well as leadership and cultural identity.



Students demonstrated meaningful growth across five areas of the program. They showed a **substantial increase in confidence in their STEM abilities**, accompanied by **more positive attitudes toward STEM** and a **greater sense of mentorship and encouragement in these fields**. The program also expanded participants' horizons, **exposing them to new experiences and ideas**, and **helped strengthen their leadership abilities**. Additionally, students reported **increased pride and connection to their cultural identity**.

Three areas remained stable, reflecting already strong baseline levels:

- ★ Friendships with Latina peers stayed consistent, suggesting that one week may not be enough time to deepen these relationships. Future programs could incorporate structured bonding activities to support peer connection.
- ★ Similarly, students' perceptions of adult support remained steady, as many already had strong networks outside of the program.
- ★ Finally, students' aspirations for the future were consistently high, with most reporting a 'high' likelihood of graduating high school, completing college, and contributing to their communities.

LLT STEMPower reinforced existing strengths and fostered growth in key areas such as STEM confidence, leadership, and cultural identity.



# Notable Highlights



## Curiosity for technological innovation increased

The program boosted students' interest in problem-solving with technology and coding.

Before camp, nearly half of the participants (49%) reported a moderate level of enjoyment, with only 11% strongly agreeing.

**After camp, the number of students who strongly agreed more than doubled (22%), and the share who agreed also increased (41%).**

## Students increasingly viewed engineering as fun and creative

Before camp, 46% of participants agreed or strongly agreed that engineering is fun and creative, with only 16% completely agreeing.

**After camp, the proportion who completely agreed rose to 22%, and those who agreed also increased to 65%, indicating a meaningful shift toward viewing engineering as engaging and creative.**



## Science interest increased

Before camp, nearly half of the participants (49%) reported feeling neutral about wanting to learn more about science.

**After camp, this shifted: the majority (78%) expressed agreement or strong agreement, showing a clear positive trend in interest toward science.**



# Voices of Impact

Hearing directly from our students, parents, and professors brings the LLT STEMpower Camp experience to life. Middle school students shared their excitement about discovering new passions in STEM, while parents expressed pride in seeing their daughters' confidence grow. Professors and facilitators also reflected on the joy of mentoring the next generation of Latina leaders in science, technology, engineering, and math. Together, these voices highlight the lasting impact of the program and the inspiration it continues to spark.

## Student Testimonials

“Chemical Engineering helped me understand how we can use our ideas in the real world.” -*Giselle*

“I found out how chemical engineering can help me use my ideas and help them become projects.” -*Juliana*

“ I figured out how to put creativity, problem-solving, and technical skills into use with the help of chemical engineering.” -*Sophia*

“I liked to learn about the different species like the painted turtles, red-eared slider, and the snapping turtle.” -*Genesis*

“I learned that there are many different jobs you can have in math. [The instructor] taught us how to play a game called quads. In quads, there are four different shapes: square, triangle, circle, and hearts!” -*Elyse*



## Parent Testimonials

★★★★★  
“Thank you so much for your great efforts, all the appreciation to all of you” -*Parent from Session I LLT STEMpower Camp*

★★★★★  
“Thank you for all your efforts, as parents, we deeply value all the work, time, and commitment you put into this meaningful and unforgettable experience. Thank you from the bottom of our hearts.” -*Parents from Session I LLT STEMpower Camp*

★★★★★  
“Thank you to all the members at LLT for your dedication, time, and for always being attentive to the girls. My daughter really enjoyed this week. I know that everything she learned will be important for her life, thanks for the opportunity” -*Parent from Session II LLT STEMpower Camp*

**Watch our Summer Recap Video**



# Acknowledgements

This year's LLT STEMpower program would not have been possible without the generous support of our sponsors, Marymount University and the Glenn W. Bailey Foundation. We are deeply grateful for their partnership and commitment to empowering the next generation of Latina leaders in STEM.

In 2025, we proudly signed a three-year partnership agreement with Marymount University, marking an exciting new chapter in our collaboration. We look forward to continuing this partnership and expanding the opportunities available to our students. A special thank-you goes to Dr. Todd Rimkus, our lead partner at Marymount University, whose coordination of space, resources, and connections with faculty and students made the two weeks of LLT STEMpower an incredible success.

We also extend our heartfelt thanks to the Glenn W. Bailey Foundation, whose generous support allowed us to expand our programming to two weeks this year—doubling the number of girls we were able to impact through LLT STEMpower.

## LLT STEMpower Volunteers

### GUEST SPEAKERS

Dr. Irma Becerra Fernandez  
Supervisor Dalia A. Palchik  
Karol Melero  
Lina Rodriguez  
Dr. Maria Tereza Acosta de Oliviera  
Dr. Gabriela Siegler

### PROGRAM SUPPORT

Camila Sanchez  
Karen Rivera Perez  
Dallas Leatherman  
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Sofia Guiton  
Claudia Ochoa Rodas  
Daniela Gonzalez Castro

## Our Sponsors

