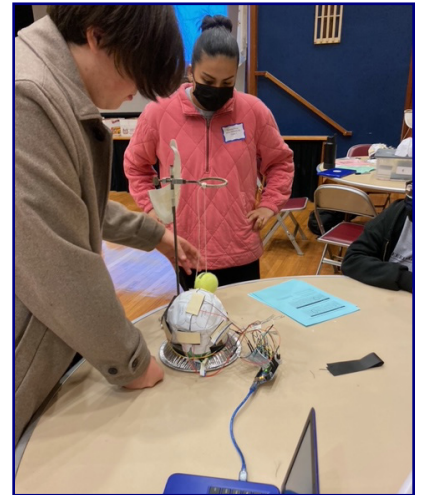


# Annual Report 2021-2022



Science and Math Investigative  
Learning Experiences

The SMILE Program seeks to improve the educational outcomes of underrepresented and underserved students by giving them confidence in their academics and life skills in order to pursue higher education and career opportunities of their choice. Our work supports the University of Rhode Island’s initiatives to achieve the enrollment of a talented and diverse community of students, as well as increase first-year retention of freshmen by focusing on college preparedness of underserved pre-college students who are in grades 4 – 12. Our success is thanks to our dedicated team of SMILE staff members, club teachers/leaders, school administrators, college faculty, graduate and undergraduate students, and community members



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## MESSAGE FROM THE DIRECTOR



*Carol M. Englander*  
*Director*

Dear friends and supporters of the SMILE Program,

The 28th year of SMILE saw a welcome return to in person learning despite the presence of new strains of Covid-19. SMILE clubs resumed with students wearing masks and once again working in teams, participating in hands-on STEM activities, exploring carbon pollution, research vessel construction, building three dimensional structures, earthquake seismograph analysis (Dr. Matt Wei's NSF grant), bridge building, plant and herbivore interactions, strength of materials and understanding brain functions to protect it from collisions during sports, to mention just a few. Students were so excited to go on field trips which had been curtailed since March 2020. High School students came to the URI Graduate School of Oceanography as part of Dr. Rainer Lohman's NSF grant. They learned about the new RCRV being built for URI to replace the RV Endeavor, carbon pollution identification, ocean sediment analysis, marine life, and marine robotics. As part of Dr. Evan Preisser's NSF grant, all levels of SMILE clubs learned about plants, both native and non-native, and herbivore interactions. Students explored the Roger Williams Botanical Center with its unusual indoor and outdoor plantings. One club visited Norman Bird Sanctuary and more field trips are planned for the Fall.

We have about 300 Rhode Island students participating in the program this year at the elementary, middle and high school levels from six school districts, with students from Central Falls, Newport, South Kingstown, Westerly, West Warwick, and Woonsocket. Our SMILE Annual Engineering and Environmental Challenges were held at URI Kingston campus. SMILE students enjoyed working with students from other schools, and were mentored by URI students, many of whom looked like them. The SMILE students loved being on a real college campus, eating in the dining hall, and beginning to envision themselves as future college students.

Our teacher Professional development workshops were presented in person at URI. Four seniors were awarded a \$500 SMILE college scholarship, inspired by Saul Nulman, a SMILE supporter, who said "Dreams, determination, and discipline will make you succeed." The student's accomplishments make us so proud. The SMILE Program continues to be Rhode Island's only STEM pipeline for helping diverse students develop their identity and competence as scientists in preparation for college. SMILE alumni students select STEM majors at the University of Rhode Island at a 70% rate, well above the national average of 14%.

SMILE students have even greater positive connections to their school, community and environment through their stewardship projects. These included cleanups around their homes and school yard, making reusable shopping bags, and rejuvenating gardens.

Your support and efforts on behalf of all our deserving and enthusiastic SMILE students has an incredible positive effect. We appreciate and thank all of you for promoting The SMILE Program and look forward to our 29th year bringing STEM activities to Rhode Island's future workforce.



## OUR REACH



### **CENTRAL FALLS**

Calcutt Middle School  
Central Falls High School

### **NEWPORT**

Thompson Middle School  
Rogers High School

### **SOUTH KINGSTOWN**

Peacedale Elementary  
Curtis Corner Middle School  
South Kingstown High School

### **WESTERLY**

Westerly Middle School  
Westerly High School

### **WEST WARWICK**

Horgan Elementary School  
Deering Middle School  
West Warwick High School

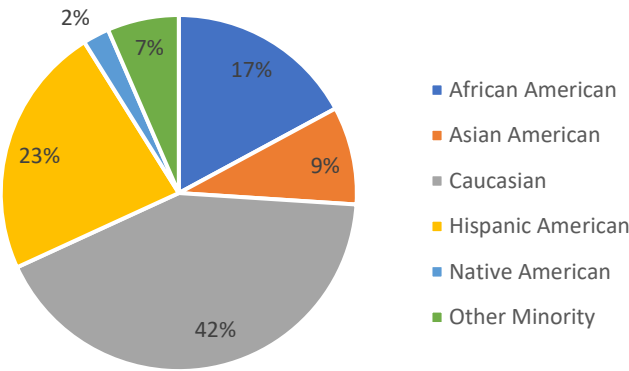
### **WOONSOCKET**

Harris Elementary School  
Citizens Elementary School  
Woonsocket Middle School at  
Hamlet  
Woonsocket Middle School at  
Villa Nova  
Woonsocket High School

PARTICIPANTS

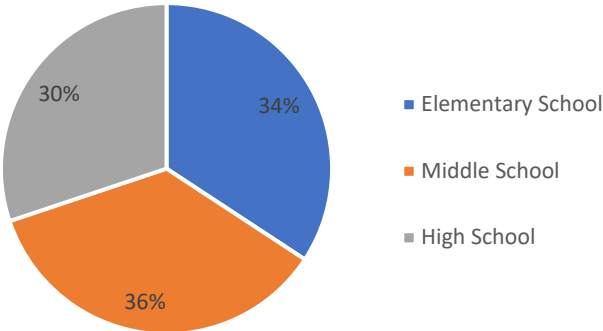
STUDENTS BY ETHNICITY

African American	50	17%
Asian American	26	9%
Caucasian	123	42%
Hispanic American	67	23%
Native American	7	2%
Other Minority	19	6%



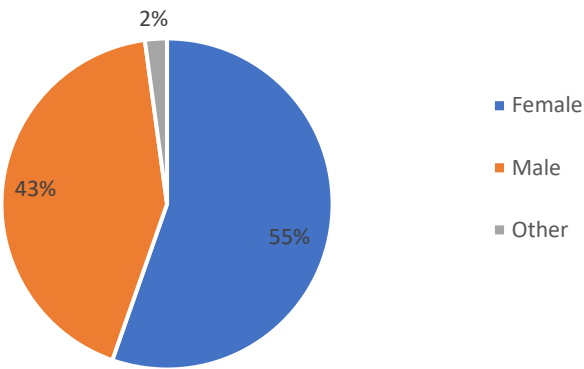
STUDENTS BY GRADE LEVEL

Elementary School	100	34%
Middle School	104	36%
High School	88	30%



STUDENTS BY GENDER

Female	129	55%
Male	99	43%
Other	5	2%



# YEAR IN REVIEW



## SMILE Teachers' Workshops

(August and December 2021)

The August workshop presented SMILE teachers with the new curriculum theme "Exploring Engineering." The focus on this past years' curriculum was on the interdisciplinary field of engineering and STEM careers. Teachers gained content knowledge through modules created for each school level (elementary, middle, and high schools) and were provided with training on a series of hands-on activities for implementation in their clubs. The SMILE winter workshop focused on preparation for SMILE's spring curriculum, which included more hands-on STEM activities in preparation for spring events.



## SMILE Career Exploration Field Trips 2021-22

Field-trips included the Roger Williams Botanical Gardens, URI Graduate School of Oceanography, Ocean Science Exploration Center and RV Endeavor, and the Norman Bird Sanctuary. We were thrilled to get our SMILE students back in the field to learn about STEM careers in Rhode Island.



## Middle School Engineering Challenge

On March 4th, 98 middle school students from 6 districts across the state came to the University of Rhode Island to participate in a Bridge Building Engineering challenge. The day started with a presentation by the Department of Transportation highlighting how they maintain all 779 bridges in Rhode Island. Afterward, the students began their build using blueprints generated in their after-school club meetings. Although the students were hard at work, they were able to tour the URI campus as well as attend a demonstration on earthquakes. The day ended with the students testing how much load their bridges could hold without breaking. The record for the day was 75 pounds.





***“Being part of SMILE is like giving me a road to success and accomplishments”***  
**- SMILE High School Student**

***“I feel more connected to the environment because of all the fun interesting forest facts I learned about.”***

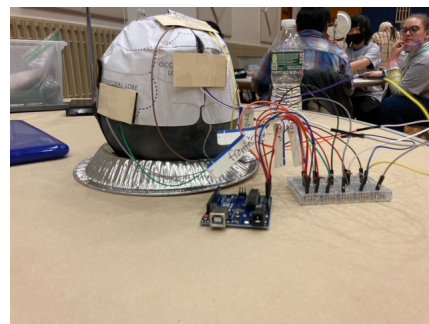
**-SMILE Elementary Student**

***“SMILE gives me opportunities to see and experience college.”***

**-SMILE Middle School Student**

## **High School Engineering Challenge**

SMILE high school students from six RI school districts came to URI to work in teams that designed and tested materials to be used in a safer version of a football helmet. They made a paper model of the brain, made sensors that attached to each of the brain lobes, programmed an Arduino uno, wired it to a breadboard, to which they attached the sensors. Students gained important knowledge about functions of the brain, and the use of electronic sensors and a microprocessor to collect data in real time.



## **Elementary Ecology Field Day**

In April SMILE 4th and 5th grade students attended the annual Elementary Ecology Field Day at the University of Rhode Island. Hailing from 4 elementary schools across Rhode Island, the students rotated through four ecology-themed stations, and enjoyed lunch in the dining halls. They were welcomed by 12 URI mentors who spent the spring semester preparing themselves, creating activities and hands-on lessons to educate the SMILE students about the ecology at the URI campus.



## **SMILE Students Design & Implement Stewardship Projects**

This spring, SMILE clubs participated in Environmental Stewardship Projects. For this project, SMILE students worked together in their clubs to design and implement a stewardship project on their school grounds. Projects from this year included school recycling campaigns, school gardens, and litter clean-ups. SMILE stewardship instills a sense of responsibility and stewardship toward the environment and community for our SMILE students.



## PARTNERSHIPS

### **SMILE Facilitated the Engagement of Industry, University Faculty and College Student Mentors**

#### **SMILE Teachers Professional Development Workshops**

URI faculty and industry experts made presentations at the Teachers Professional Development and Workshops

#### **Challenge Weekends, Elementary Ecology Field Mentors**

National Society of Black Engineers (NSBE)  
Natural Resource Science Students  
Society of Women Engineers (SWE)  
American Society of Mechanical Engineers (ASME)  
URI Society of Hispanic Professional Engineers (SHPE)  
URI Center for Student Leadership  
American Indian Science & Engineering Society (AISES)  
Advancing Hispanics/Chicanos & Native Americans in Science (SACNAS)  
Tau Beta Pi  
Student National Pharmaceutical Association (SNPhA)  
College of the Environment and Life Sciences Graduate Students

#### **SMILE URI partners in pre-college STEM outreach activities.**

URI Center for Student Leadership Steere Engineering  
URI College of Engineering URI Talent Development  
URI Graduate School of Oceanography





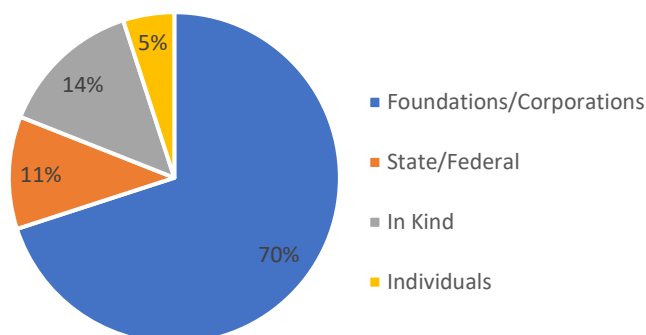
## SPONSORS

We would like to thank the following list of funders that have allowed SMILE to grow and continue to provide high quality after-school STEM programming to Rhode Island students:

AAUW  
 Anonymous  
 Amgen Foundation  
 American Honda Foundation  
 Arnold Lumber  
 The Champlin Foundations  
 Connecting For  
 Children and Families  
 Constellation, an Exelon company  
 Cox Charities Trust  
 Dominion  
 Dassault Systemes  
 The Gerald Claude Kirby Trust  
 Graphic Expressions  
 June Rockwell Levy Foundation  
 Nordson Corporation Foundation  
 Ocean State Charities Trust  
 Pfizer  
 Ramsey McCluskey Family Foundation

Red Sox Foundation  
 Schneider Electric  
 SPIE  
 Steere Engineering  
 Toray Plastics, America, Inc.  
 University of Rhode Island  
 van Beuren Charitable Foundation  
 Verizon Foundation  
 Central Falls School Department  
 Newport School Department  
 South Kingstown School  
 Department  
 Westerly School  
 Department  
 West Warwick School  
 Department  
 Woonsocket School  
 Department

## FUNDING SOURCES



## EXECUTIVE BOARD

### SMILE STAFF

Carol Englander  
Director

Jo Ann Basel  
Assistant Director

Claudia Hoddersen  
Curriculum Specialist

Kaitlyn Czap  
Development and  
Publications Coordinator

Meghan Corneau  
Curriculum Specialist



### BOARD OF DIRECTORS

John Peterson  
President

Neil Nachbar  
Vice President

Ruth Jarrett  
Treasurer

Fran Alexacos  
Secretary

Malcolm Spaulding  
Board Member

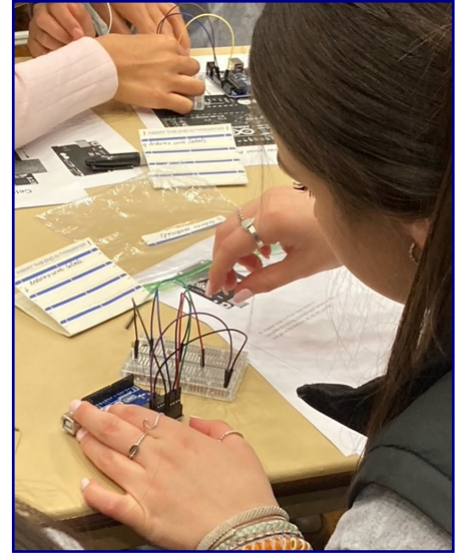
Glenda Kirby  
Board Member

Augusto Gomes  
Board Member

Bill Koconis  
Board Member

Jean Riendeau  
Board Member

## PROGRAM SUCCESS



### COLLEGE ENROLLMENT DATA 1994-2021

Source: College Enrollment by Participants in The SMILE Program 1998-2021

URI Office of Institutional Research

1. Since its founding in 1994 to 2021, 4398 students have participated in The SMILE Program.
2. The high school graduation rate for students that participated in SMILE for one or more years is between 90% and 100%.
3. The college enrollment of students who we were able to track using the National Student Clearinghouse is 67%. In 2021, 75% of all SMILE students who graduated immediately enrolled in college. Among low income students only 44% immediately enroll in college (2014 RI Kids Count Factbook).
4. Since 1998, former SMILE participants who graduated high school have attended 370 different colleges and universities with locations in 33 different states plus the District of Columbia and Puerto Rico.
5. Between 1998 and 2021, 527 SMILE alumni have enrolled at URI and 86% pursued STEM majors.
6. In 2021, 101 SMILE alumni enrolled at URI, 86% of them are in STEM majors (Note: only 14% of all US college undergraduates are enrolled in STEM according to a US Dept. of Education Report).
7. For students in SMILE for three or more years, the ratio of students attending college versus those who did not attend college is approximately 2:1.
8. 100% of the students in SMILE for more than 7 years went to college.
9. In 2021, 210 students who were in SMILE graduated high school.

**The SMILE Program congratulates all SMILE seniors class of 2022, and wishes them success in their academic and professional careers.**