

# SMASH

The signature program of the Level Playing Field Institute

Perhaps the most ambitious program to encourage African American and Latino students in STEM fields is SMASH academy run by the Level Playing Field Institute.

- U.S. News and World Report



# Underrepresentation in STEM

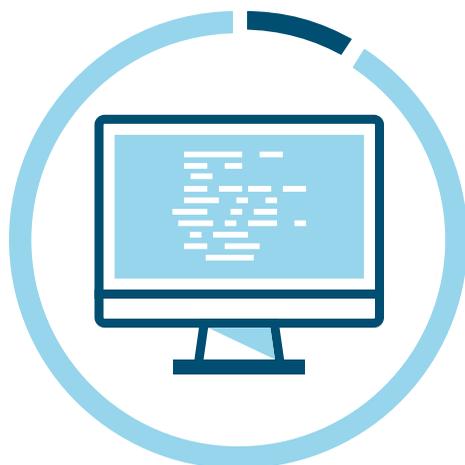
*STEM industries offer the fastest growing and highest paying careers. However...*



African Americans and Latinos combined comprise only **18%** of Advanced Placement Math and Science exam takers



African Americans and Latinos combined earn just **17%** of all science & engineering degrees



Only **9%** of the entire science and engineering workforce are African American or Latino

# Summer Math and Science Honors Academy (SMASH)

The signature program of the Level Playing Field Institute, SMASH is a STEM enrichment program for low income high school students from backgrounds underrepresented in STEM fields. For three years, SMASH scholars participate in a rigorous, intensive five-week summer program, housed on college campuses of our partners: the University of California at Berkeley, Los Angeles, Davis, Stanford University and this year, Morehouse College. SMASH scholars are supported with academic year programming elevating computer science in order to prepare them for AP CS test in their senior year.

SMASH curriculum is developed upon a culturally relevant and inclusive pedagogy purposefully rooted in the structural reality that underrepresented communities face. While STEM subjects are the focal point, SMASH also elicits 21<sup>st</sup> Century skills through community focused problem solving, innovation and creativity through empowerment of SMASH scholars. Curricula is synergistic with Common Core, National Science Education Standards, as well as California Science Content Standards.

- SMASH Math comprises advanced algebra and pre-calculus, designed to actively engage students in concepts and skills associated with advanced mathematics. SMASH Science includes biology, chemistry and physics, focusing on application and development of lab skills while deepening understanding of selected key scientific principles.
- SMASH Computer Science (CS) curriculum is a rigorous introduction to various skills in modern digital literacy and programming, including developing root problem-solving skills and computational thinking, Java programming, data Science and app development. SMASH CS has been developed with support from the National Science Foundation.
- SMASH Engineering Design Challenges curriculum is a project-based course that prepares and motivates each scholar to design the future. This fully integrative and hands-on sequence of courses builds the skills and conceptual understanding associated with design, fabrication, and analysis in science and engineering.
- SMASH electives include SAT & SAT II Prep, Entrepreneurship (at Stanford), College Success, Life Speaking, and Topics in Science Research (at Berkeley).
- SMASH is holistic - we engage students in networking, public speaking, navigating complex teams and inter-cultural collaboration, all within a supportive network of teachers and mentors with diverse life experiences.

In their senior year in high school, we connect SMASH scholars to mentors already working in STEM fields to support the challenging path of high school graduation, summer internships, college applications and entry into STEM majors.



**Berkeley**  
UNIVERSITY OF CALIFORNIA



**STANFORD**  
UNIVERSITY



**MOREHOUSE**  
COLLEGE

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA

# SMASH Alumni

## By the Numbers



**100%** graduated from high school

**95%** are either enrolled in college or have completed their degree



**68%** of current college students are STEM majors

**64%** of college graduates are working in STEM fields



### BY SMASH SITE (2016)

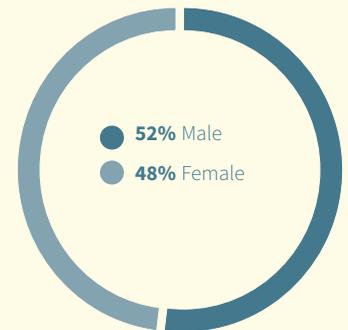
**UC BERKELEY**  
261 alums  
13 summers

**UCLA/USC**  
137 alums  
6 summers

**STANFORD**  
81 alums  
5 summers

**TOTAL ALUMNI 459**

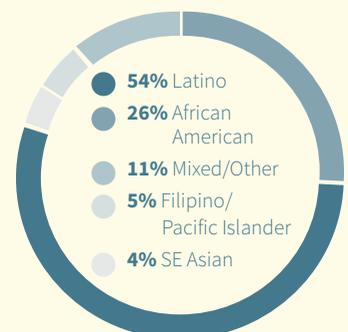
### GENDER



### SOCIOECONOMIC STATUS



### ETHNICITY



# SMASH Scholar and Alumni Profiles



## SEM HAR TEKLU

***SMASH Berkeley scholar on how SMASH has fueled her interest in medicine.***

“ Before coming into SMASH I knew that I wanted to enter the medical field, but I didn’t know the exact career I wanted to pursue in the medical field. Ever since I joined SMASH I have received a lot of information about the medical field. I want to become a general doctor. The college success class at SMASH has taught me a lot about college as well. I want to attend Stanford, or UCLA, and for medical school I want to attend John Hopkins. I know these schools are very hard to get into, but SMASH has given me the confidence to admit that I want to go to these schools. ”



## INGRID VERASTEGUI

***SMASH Berkeley Alum on how SMASH shaped her career as a civil engineer.***

“ After graduating from high school, I wanted to major in Civil Engineering with the intention of becoming a Structural Engineer. My interest in hydraulics and environmental engineering blossomed in my first two years at the University of the Pacific. I concentrated in Water Resources and Environmental Engineering. SMASH helped me develop a stronger self-confidence in my potential as a Peruvian woman in the STEM field. The rigorous math and science classes allowed me to learn of my abilities for understanding and applying physics and math concepts. I am the first woman in my family to graduate with an engineering degree. No one really spoke to me about engineering. Now looking back, I am very confident in my decision to pursue engineering because of my experience at SMASH. ”

# MARSHALL DAVIS

*SMASH UCLA Alum on how SMASH impacted his interest in STEM*

“The thought that I could continue my love for technology and mathematics into college and relate to my own career really helped my interest. I know STEM is going to be and is an important to our society for a very long time. I would definitely like to be apart of this kind of movement and contribute. My social skills have definitely improved this summer. The first SMASH networking night allowed me to know how to approach and connect with people. All the staff were really welcoming and helpful with whatever students needed.”



# ROMARIO CONRADO

*Stanford Scholar on how exposure to SMASH shifted his interest in math and CS*

“I used to not like Math, I was an English guy. But the flip switched. SMASH made me realize that Math is nothing but having an infinite tool-belt (with no limit to our society!) and solving problems left and right. If I heard the term “programming” without SMASH, I would think it was something to do with wedding planning. SMASH fostered my love for design coding with HTML.”

# SMASH Media Mentions



## Bring STEM Education to Underserved Communities

Joseph P. Williams

## WABE 90.1 FM A Closer Look: Interview with Eli Kennedy, CEO of LPFI

Rose Scott

## SMASH Prepares Underrepresented Student's for Success

KTVU Fox Ch. 2

## Gender, Racial Equality a lifelong passion for Freada Kapor Klein

Joe Garofoli

## Math & Science Program at UC Davis Recruits Underrepresented Students

Marjorie Kirk

## Morehouse joins elite STEM training program

David Squires

# About Level Playing Field Institute



**Level Playing Field Institute (LPFI)** is committed to eliminating the barriers faced by underrepresented people of color in science, technology, engineering and math (STEM) and fostering their untapped talent for the advancement of our nation.

LPFI was founded in 2001 and launched its flagship program, the Summer Math and Science Honors Academy (SMASH), at UC Berkeley in 2004, to serve underrepresented students (i.e., students of color, low-income students, girls, and first generation students). SMASH has expanded to four sites, and added additional programs to expand LPFI's reach and impact. Today SMASH remains a central part of LPFI's expanding continuum of innovative STEM-education programs serving young scholars from middle school through college enrollment. LPFI is planning its national expansion and is poised to launch at UC Davis and Morehouse College in 2016 with the SMASH: Pathways recruitment program. LPFI will serve nearly 1,100 scholars in 2016.

LPFI is a member of the Kapor family of organizations.

- **Kapor Center for Social Impact (KCSI)** relentlessly pursues creative strategies that will leverage information technology for positive social impact. KCSI primarily works with underrepresented communities, focusing on gap-closing endeavors.
- **Kapor Capital (KCap)** is an Oakland based fund that works to transform industries and to address urgent social needs. K-Cap believes that startups can leverage information technology to solve real world problems and tangibly improve the lives of millions through innovations in the fields of education, finance, health, work, justice and more.

Key to the Kapor family philosophy is a deep commitment to diversity. We know that entrepreneurs come from all walks of life. We believe that the lived experience of founding teams from underrepresented backgrounds provide a competitive edge. Their experiences inform the questions they ask and the problems they identify that give rise to profitable, tech-driven solutions.

# We're Expanding

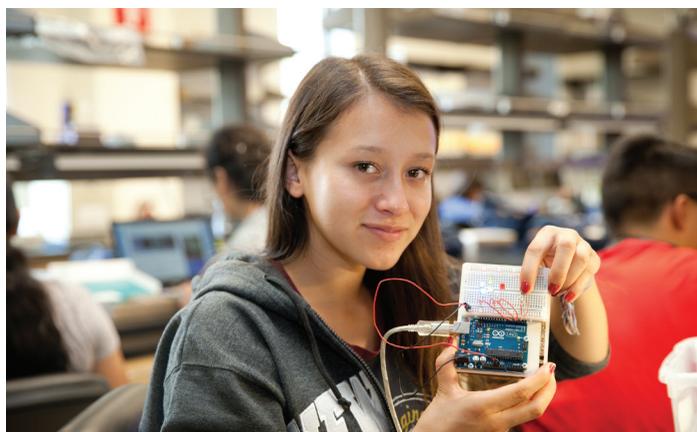


According to a national study by ACT, only 5% of African American high school students, 13% of Latino/a students and 8% of Native American students who express an interest in studying STEM fields are adequately prepared to meet college entrance expectations.

This is why LPFI's work is so critical. We create a level playing field for youth to prepare for college and careers in STEM (or other) fields so that they can thrive, enrich our economy and build wealth for themselves, their families, and the future of our diverse community.

In 2016, LPFI is delivering the SMASH Pathways program to Morehouse College in Atlanta and SMASH at University of California, Davis.

We are poised to scale SMASH nationally over the next three to five years. An ambitious expansion campaign to the East Coast and Midwest is underway and we seek dynamic partnerships to impact thousands of underrepresented youth across the nation.





# PARTNERS



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# Level Playing Field Institute

ESTABLISHED 2001

2148 Broadway  
Oakland, CA 94612  
[info@lpfi.org](mailto:info@lpfi.org)  
[www.lpfi.org](http://www.lpfi.org)