THE 50k COALITION

2023 Impact Report

Background

The 50K Coalition was formed by the nation's preeminent diversity engineering organizations that serve more than 85,000 pre-collegiate, collegiate, and professional members.

The American Indian Science & Engineering Society (AISES), the National Society of Black Engineers (NSBE), the Society of Hispanic Professional Engineers (SHPE) and the Society of Women Engineers (SWE) formed The 50K Coalition against a backdrop of growing demand for engineering jobs in the U.S., yet relatively level and severely underrepresented engineering degrees among Black, Brown, and Women students. Together, AISES, NSBE, SHPE and SWE, along with more than 60 visionary institutions and organizations, committed to reshaping the engineering landscape to forge a more diverse engineering workforce in the U.S.

The 50K Coalition first convened in 2016 with the foremost thought leaders across the engineering ecosystem who are committed to addressing underrepresentation in the field. These leaders included campus diversity leaders, engineering professional society leaders, researchers, advocacy groups, corporate leaders and government agency leaders. Collectively, these leaders pledged to reach a bold goal of producing 50,000 diverse U.S. engineering graduates annually by 2025 and drafted organizing frameworks that would serve as a guide to achieving this goal.

The Coalition's work was guided by the Collective Impact and Results-Based-Accountability (RBA) frameworks. The Collective Impact framework supports an evidence-based approach that drives management decision-making, improvements, sharing of information, and collective action to achieve Coalition success. This framework was essential to organizing multiple organizations towards a single common agenda. The RBA framework is a disciplined way of thinking and acting used by communities to improve the lives of children, families, students, and the community. The 50K Coalition encouraged its members to use the RBA framework to identify and develop innovative strategies, and to strengthen existing programs, in support of the 50,000 graduates goal.

The 50K Coalition Leadership Circle

American Indian Science & Engineering Society (AISES)

National Society of Black Engineers (NSBE)

Society of Hispanic Professional Engineers (SHPE)

Society of Women Engineers (SWE)

Engineering Professional Societies and other Nonprofit Organizations

Accreditation Board for Engineering & Technology, Inc. (ABET)

American Council of Engineering Companies (ACEC)

American Institute of Chemical Engineers (AIChE)

American Nuclear Society (ANS)

American Society for Engineering Education (ASEE)

American Society of Civil Engineers (ASCE)

American Society of Civil Engineers (ASCE)

American Society of Mechanical Engineers (ASME)

Engineering Research Consortium of America (ERCA) / Student Research Foundation (SRF)

Engineers Without Borders USA (EWB-USA)

Great Minds in STEM (GMiS)

Institute of Electrical and Electronics Engineers (IEEE-USA)

MAES Latinos in Science and Engineering (MAES)
Mass Robotics

National Academy of Engineering (NAE)

National Action Council for Minorities in Engineering (NACME)

National Association of Multicultural Engineering Program Advocates (NAMEPA)

National Society of Professional Engineers (NSPE)

Society for Advancement of Chicanos & Native Americans in Science (SACNAS)

Women in Engineering ProActive Network (WEPAN)

Universities and Community Colleges

Alabama A&M University

Boulder Community College of Denver

Central New Mexico Community College

City Colleges of Chicago

College of Engineering & Applied Science University of Colorado – Boulder

Community College of Allegheny County

Cornell University

Florida A&M University

Florida International University

Georgia Institute of Technology

Hampton University

Holyoke Community College

Howard University

Jackson State University

Louisiana State University

Massachusetts Institute of Technology

Montgomery College

Morgan State University

New Mexico State University

Norfolk State University

North Carolina A&T State University

Prairie View A&M University

Purdue University

Rice University

Southern University

Tennessee State University

Texas A&M University

Tufts University

Tuskegee University

University of Central Florida

University of Georgia

University of Maryland, Baltimore Country

University of Maryland, College Park

University of Maryland, Eastern Shore

University of Michigan

University of Missouri

University of North Texas

University of Rhode Island

University of Rochester

University of Toledo

Corporations, Foundations, and Government Agencies

Bechtel

BP

Chevron

Northrop Grumman

Shell Oil Company

A Message from the 50K Leadership Circle

When The 50K Coalition was established in 2015, we set an audacious goal to produce 50,000 diverse and women engineering graduates annually by 2025. We set this goal with an unwavering determination because we understand the consequences of a growing imbalance of representation in the engineering field -- consequences that would harm our nation's future economic competitiveness, our quality of life, and our national security.

In 2015, the U.S. produced approximately 97,000 engineers per year at the bachelor's degree level, of which less than 32,000 were minorities and women. To increase representation of these underrepresented groups of engineers, the Coalition adopted a multifaceted approach to its work that included undergraduate support and retention; community college linkages to four-year engineering degrees; supporting K-12 students with math education; fostering an inclusive culture and climate within engineering institutions; and lowering the financial barriers to entry and completion in engineering, while developing funding strategies to sustain and scale successful activities already in place in academic institutions.

In 2023, we are delighted to announce that through the collective efforts of the members of The 50K Coalition we have surpassed expectations and witnessed this bold vision transform into reality five years earlier than our stated goal.

We are pleased to announce that for the first time in U.S. history, more than 51,000 students representing women and BIPOC populations received engineering degrees in 2020.

We congratulate each member of The 50K Coalition for their relentless efforts in realizing the Coalition's goal of 50,000 diverse engineering graduates by 2025. Achieving this milestone would not have been possible without the remarkable collaboration among our partner institutions, organizations, and individuals who have wholeheartedly embraced this cause. But the impact of The 50K Coalition is measured in more than numbers.

Beyond accomplishing our 50,000 diverse engineering graduates goal, together, we have fostered an ecosystem of support, mentorship, and opportunity that empowers aspiring engineers from underrepresented backgrounds to thrive and succeed. Ultimately, the Coalition's collective commitment to diversity in the engineering field has driven change that will undoubtedly shape the future of engineering for generations to come.

While we celebrate this moment, we also recognize that our mission is far from over. The work of increasing underrepresentation in the engineering industry must continue across organizations, institutions, and individuals, even as we sunset the Coalition. We firmly believe that diversity fuels innovation and drives progress, making it essential for us to keep pushing forward.

The 50K Coalition Leadership Circle, which includes AISES, NSBE, SHPE, and SWE, would like to express our deepest gratitude to each organization and every individual member of the Coalition who contributed valuable time, resources, and expertise towards this incredible mission. Let us leverage this success as a catalyst for even greater progress in fostering diversity and inclusion within the field of engineering.

As we look to a future filled with possibilities, we are confident The 50K Coalition's legacy will continue to reverberate throughout the engineering community and beyond.

Congratulations once again on this extraordinary achievement!

Sincerely,

The 50K Coalition Leadership Team

Sarah EchoHawk (Pawnee)

President, American Indian Science and Engineering Society (AISES)

Janeen Uzzell

CEO, National Society of Black Engineers (NSBE)

Miguel Alemañy

Interim CEO, Society of Hispanic Professional Engineers (SHPE)

Karen Horting, CAE

Executive Director & CEO, Society of Women Engineers (SWE)

> *"Working with the 50K Coalition has reinforced my belief in the immense potential of diversity, equity, and inclusion in engineering. As we close this chapter, remember that our work is not done. It's a call to action to continue championing equity and access in STEM education and careers, recognizing that diversity, equity, and inclusion are not just ideals but vital contributors to the technological strength and innovation of the United States of America, harnessed through the transformative power of collective impact."*
>
> **Gabriel Najera, Strategy Consultant & Community Engagement Manager, The 50K Coalition**

By the Numbers Summary

There continues to be a gross underrepresentation of engineering degrees awarded to Women, Hispanics, Blacks, and American Indians[1]. However, through the work of The 50K Coalition, the growing imbalance of representation in the engineering field has slowed as more students from diverse backgrounds graduate with engineering degrees.

Engineering Bachelor's Degrees by Gender and Ethnicity, 2011/2020 (NSF[2]) U.S. Census, 2010/2020

Group	% of U.S. Population (2010)	% of Degrees Awarded (2011)	% of U.S. Population (2020)	% of Degrees Awarded (2020)
Women	50.8%	19.0%	50.4%	24.0%
Hispanic	16.0%	9.2%	18.7%	14.0%
Black/ African American	12.6%	4.5%	13.6%	4.6%
American Indian/ Alaska Native	0.9%	0.5%	1.3%	0.3%

[1]A member of any of the Indigenous peoples of the Americas. We acknowledge there are a number of other preferred terms. We also recognize that there are native peoples outside of the United States, but for the purposes of this document, our reference to American Indian includes those Indigenous peoples of, or residing in, the United States.

[2]Diversity and STEM: Women, Minorities, and Persons with Disabilities 2023 | NSF - National Science Foundation

> *"The work of the 50K Coalition proves that a diverse alliance of people and organizations can work together to achieve a common purpose and build something greater for all of us. The focus on 'what do we need to get done and how do we do it together,' greatly expanded our networks and created collaborative relationships with all those who joined the coalition. In Indigenous cultures, we are taught to always be good ancestors to those generations who will follow ours. The 50K Coalition did just that. We came together to work collectively to serve our future generations and for that I am grateful to have been a part of it."*
>
> **Sarah EchoHawk, President, AISES**

Graduating 50K Diverse Engineers

This Impact Report presents the strategies and accomplishments of The 50K Coalition as it worked diligently toward creating more engineering graduates and a more equitable and inclusive engineering workforce. Importantly, it also serves as a resource to be used with partners to address ongoing obstacles and opportunities in developing a more diverse engineering ecosystem.

The 50K Coalition took a collective impact approach to achieve its goal of producing 50,000 diverse engineering graduates by the year 2025, from a baseline of about 30,000 underrepresented students earning degrees in engineering in 2015.

The collective impact approach recognizes that no single program, organization, or academic institution acting in isolation can bring about large-scale social change on its own. Community-level change requires the concerted efforts of the many players who can contribute to better system performance to band together around a common agenda. Collective action is a new way of working that allows individual efforts to add up to significant change.

All Coalition members, united in a shared understanding of the challenges to success and how to overcome them, adopted a multifaceted framework designed for seismic change. The comprehensive approach - The 50K Coalition's Common Agenda - focused on undergraduate support and retention, community college linkages to four-year engineering degrees, supporting K-12 students with math and science education, and fostering an inclusive culture and climate within engineering institutions. Each Coalition member was then given the flexibility and freedom to develop their own action plans to execute against this common agenda framework.

The 50K Coalition's Common Agenda framework is based on ecological systems theory, which introduces strategies that depict the components of the undergraduate educational pipeline that are critical to success (Figure 1).

These include targeted recruitment efforts from traditional and non-traditional sources, transfers from community colleges and Minority-Serving Institutions, retention of enrolled students to graduation, capacity building of key administrative functions (e.g., Minority/Women in Engineering offices), and increasing the diversity and inclusion of campus-based engineering clubs and chapters.

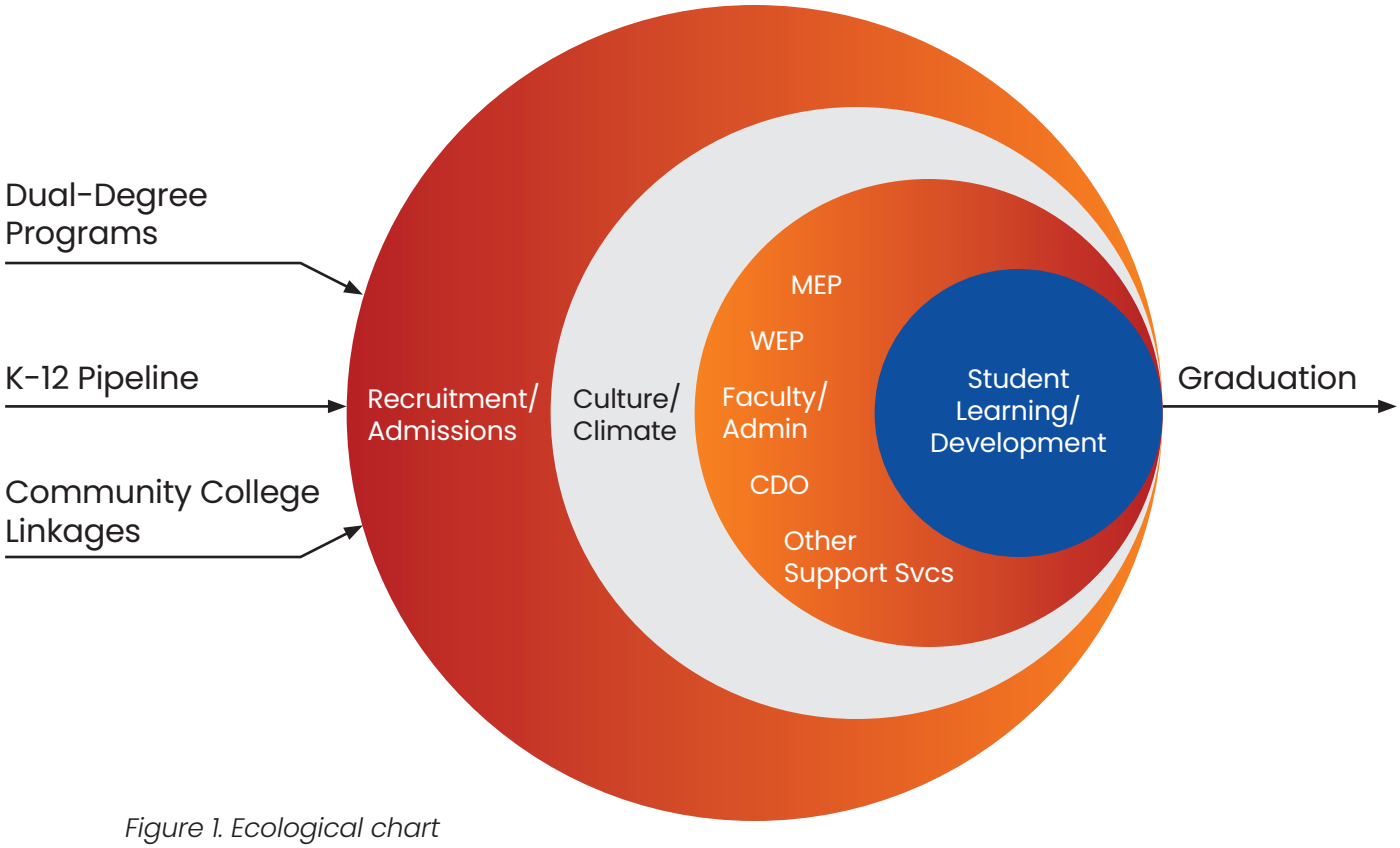


Figure 1. Ecological chart

Undergraduate Support and Retention

One of the core pillars of The 50K Coalition's strategy was increasing the ability of colleges and universities to recruit, enroll, retain, and graduate more women and underrepresented undergraduate students.

Coalition members were given the freedom to determine how they could best contribute to this goal. Some Coalition members implemented mentoring programs that paired students with industry professionals and senior peers, offering academic tutoring, and providing mental health resources, while others promoted active participation in student organizations and engineering clubs to create a sense of belonging and community among the undergraduates.

The Coalition's efforts have yielded impressive results, with a significant increase in the retention rates of underrepresented students. By offering tailored support that addressed both academic and socio-emotional needs, the Coalition ensured that more students remained engaged and completed their engineering degrees.

> *"These linkages between Community Colleges and colleges of engineering are a critical component of the engineering to graduate pipeline, and we're building that at City Colleges, and we're building that with the support and community that The 50K Coalition has become. And so, I wanted to share that just as a point of hope, of inspiration for you to get involved, and get engaged."*
>
> **Juan Salgado, Chancellor at City Colleges of Chicago**

Community College Linkages

The 50K Coalition members forged strong, intentional linkages between community colleges and four-year engineering programs. This was based on a recognition of the pivotal role community colleges play in widening access to higher education. For example, Coalition members worked to create articulation agreements that streamlined the transfer process, ensuring that credits earned at community colleges seamlessly transition to engineering programs at universities.

This approach is a critical component of the engineering graduate pipeline as it not only makes engineering education more accessible, but also provides a smoother pathway for diverse students who may begin their higher education journey at a community college.

Through these linkages, Coalition members facilitated a greater influx of diverse students into engineering programs. This strategy not only boosts enrollment, but also enriches the engineering community with a broader range of perspectives and experiences.

K-12 Math Education

The 50K Coalition placed an important focus on early intervention to address the root causes of underrepresentation in engineering by raising awareness and interest in engineering and proficiency with math and science in the K-12 pipeline. In doing so, Coalition members equipped students from diverse backgrounds with a strong foundation in the skills critical for success in engineering.

Furthermore, Coalition members partnered with schools to provide math tutoring, mentorship, and interactive workshops, fostering a love for math, and dispelling the notion that engineering is an unattainable career path. Not only have these efforts reshaped perceptions of math, they have also created a diverse pathway of talented students who are interested in engineering studies.

Culture and Climate

Creating an inclusive culture and climate within engineering institutions was essential to The 50K Coalition's goal of realizing 50,000 diverse engineering graduates. By collaborating with universities and engineering departments, Coalition members were able to advocate for policies and practices that promote diversity, equity, and inclusion. This included faculty training in culturally responsive teaching, the establishment of affinity groups, and the implementation of bias-free admissions processes.

As a result, engineering institutions have become more welcoming and supportive spaces for underrepresented students. With an emphasis on fostering a sense of belonging, Coalition members were able to help increase engagement levels and improve academic performance among diverse students, further contributing to attaining the 50,000 goal.

Additional Common Agenda efforts included promoting the promise and outreach of engineering in creative ways to make it more appealing to underrepresented students across genders. Further, the Coalition recognized the importance of lowering the financial barriers to educational entry and completion in engineering and the need to develop funding strategies to sustain and scale successful activities already in place in academic institutions.

This holistic approach to promoting diversity in engineering education has successfully produced 50,000 diverse engineering graduates five years early, bringing about positive changes in the representation and experiences of underrepresented groups in engineering. As the Coalition sunsets, it will continue to serve as a model for collaborative efforts to create a more inclusive and equitable engineering workforce.

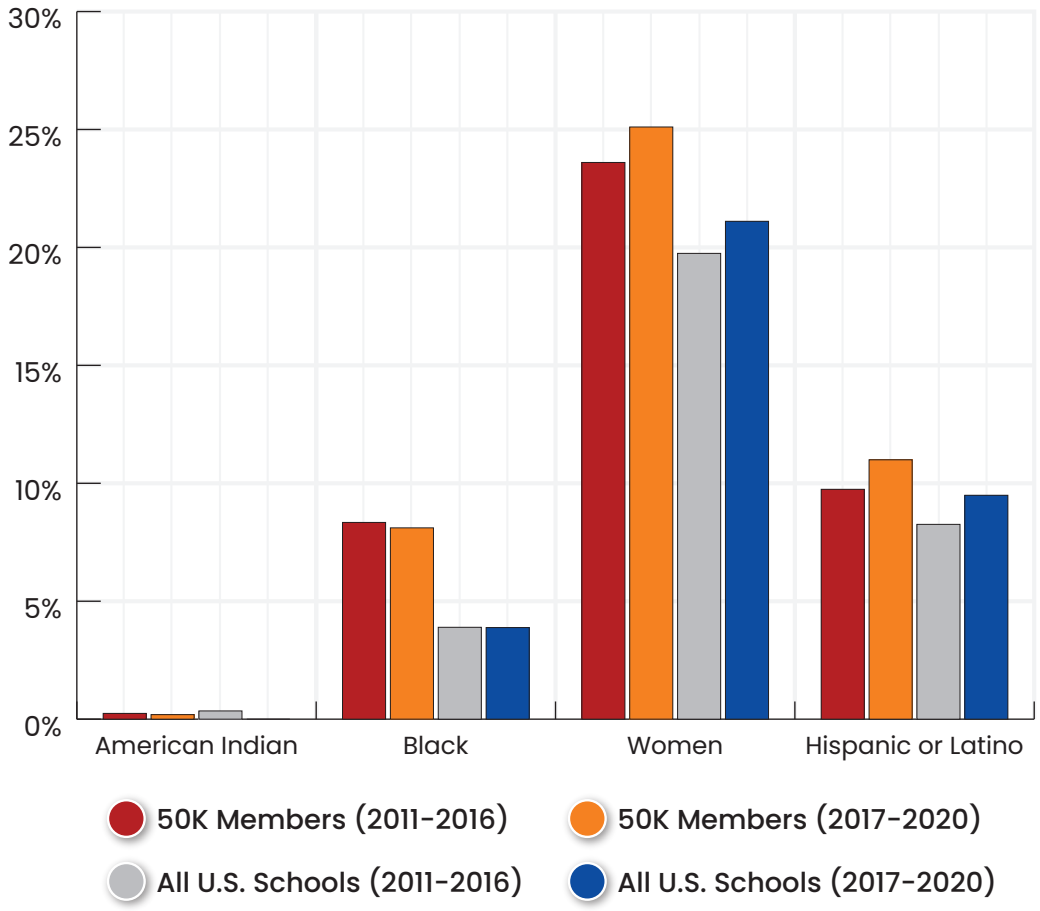
> *"Joining the 50K Coalition and the Leadership Circle was an easy decision because it was so aligned with SWE's mission. While I am excited that we have achieved our goal earlier than we thought possible, I am more excited about the relationships SWE has built with the other diversity engineering organizations. Our work isn't done. We will continue to work together as a community to increase the diversity, inclusion and belonging within the engineering profession."*
>
> **Karen Horting, CAE, Executive Director and CEO, Society of Women Engineers (SWE)**

Demonstrating Impact

Through the collaborative work of The 50K Coalition organizations to systemically address barriers to greater parity in the engineering field, great progress was achieved overall. The number of engineering bachelor's degrees for Women and BIPOC students have generally trended upwards at a higher pace since the launch of the Coalition (Figure 2).

The COVID-19 pandemic undoubtedly affected nearly every aspect of students' lives, but the educational impact for minority students was particularly significant across the board. For BIPOC students studying engineering, the pandemic presented additional hurdles on their journey towards graduating. When educational institutions shifted to remote learning and faced budget cuts, these students were faced with reduced access to resources and support systems, which inevitably led to a decrease in the rate of engineering degrees earned by this group of students during that challenging period.

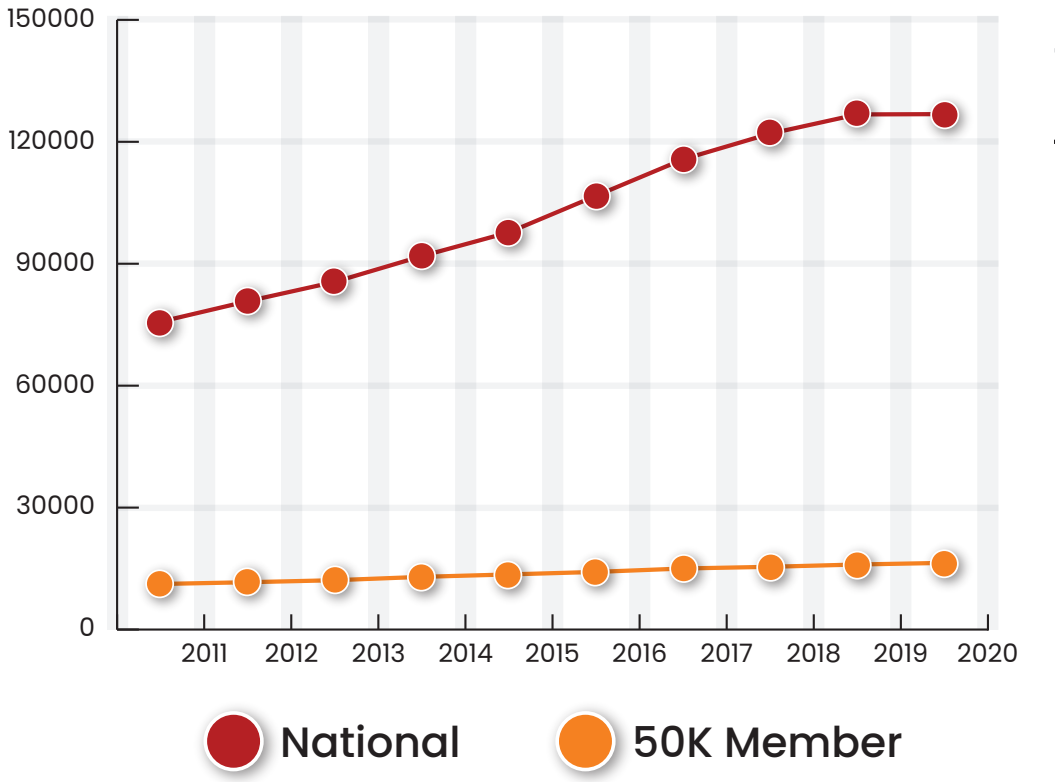
Figure 2: Percentage of Students Graduating with an Engineering Bachelor's Degree (Pre-50K Coalition and after Coalition Began). Source: IPEDS



Number of Engineering Bachelor's Degrees Awarded

While the number of undergraduate engineering degrees awarded to underrepresented populations has continued to increase (Figure 3), when broken down by ethnicity and gender, not all groups saw similar gains.

Figure 3: Number Of Students Who Received A Bachelor's Degree In Engineering

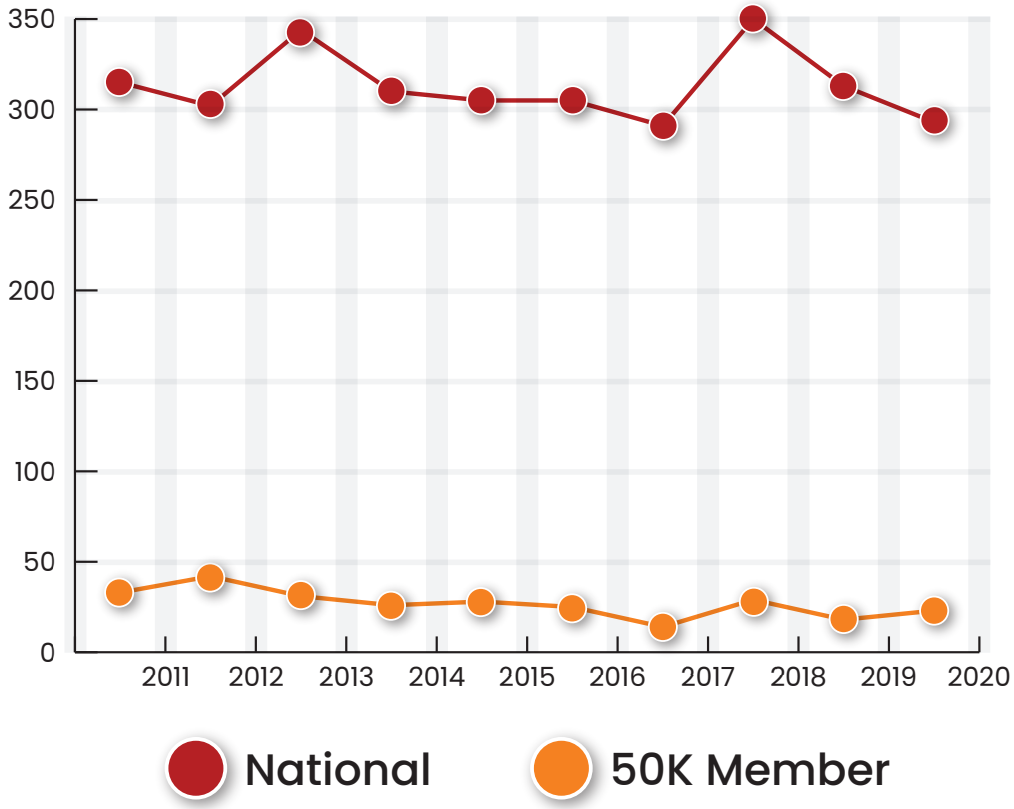


Totals: National – 1,029,648 50K Member – 138,551

Number of Engineering Bachelor's Degrees Awarded to American Indians

American Indian engineering students saw a strong increase in engineering bachelor's degrees earned from 2017 to 2018, but saw a steady decrease in degrees earned from 2018 to 2020. While there is no doubt the pandemic impacted American Indian students significantly, the pre-pandemic decline uncovered new learnings about barriers impacting this student community.

Figure 4: American Indians Earning Engineering Bachelor's Degrees

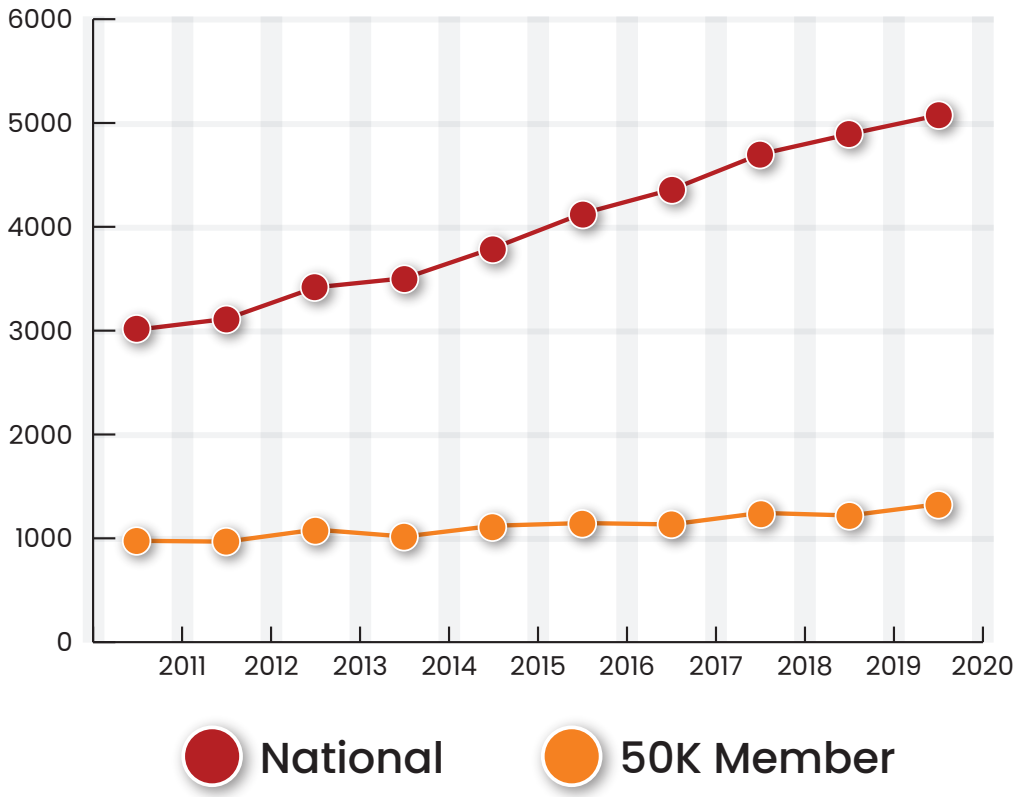


Totals: National – 3,128 50K Member – 269

Number of Engineering Bachelor's Degrees Awarded to African Americans

While seeing some gains between 2014 and 2016, the rate at which Black engineering students received a bachelor's degree began to taper off in 2019 and 2020, partially due to the pandemic.

Figure 5: African Americans Earning Engineering Bachelor's Degrees

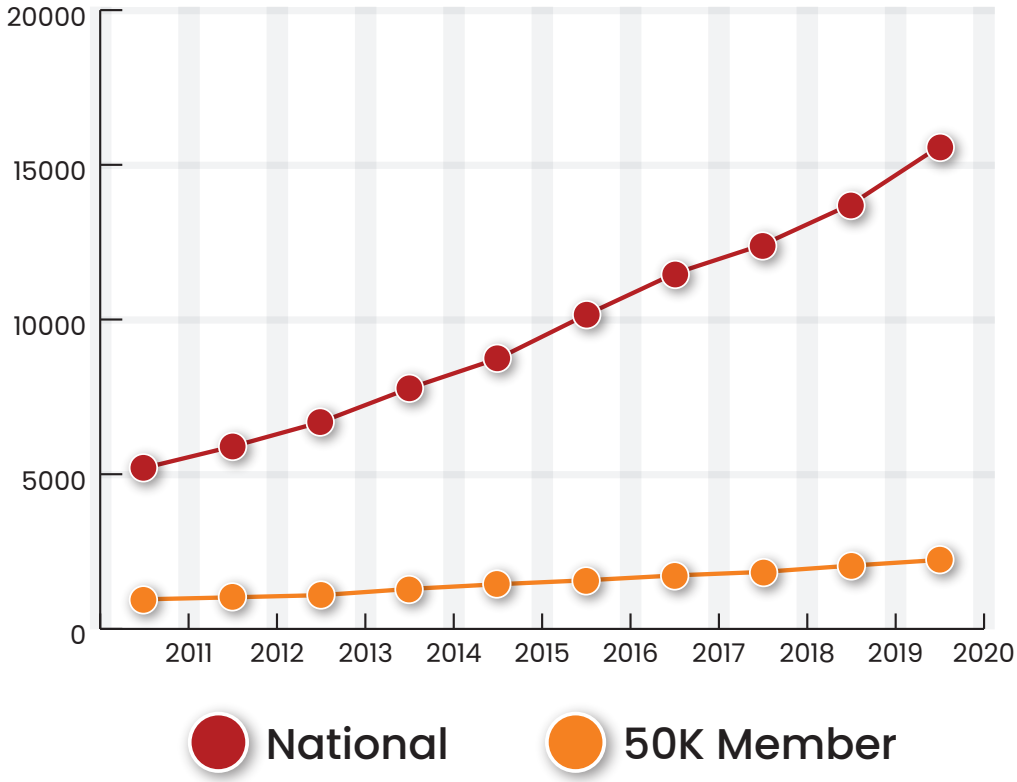


Totals: National – 39,997 50K Member – 11,241

Number of Engineering Bachelor's Degrees Awarded to Hispanics

The Hispanic population has seen strong gains in the number of engineering bachelor's degrees received since the inception of The 50K Coalition. Unlike American Indian and Black students, Hispanic students continued to see increases in the rate of students receiving engineering degrees in 2019 and 2020.

Figure 6: Hispanics Earning Engineering Bachelor's Degrees



Totals: National – 97,710 50K Member – 15,222

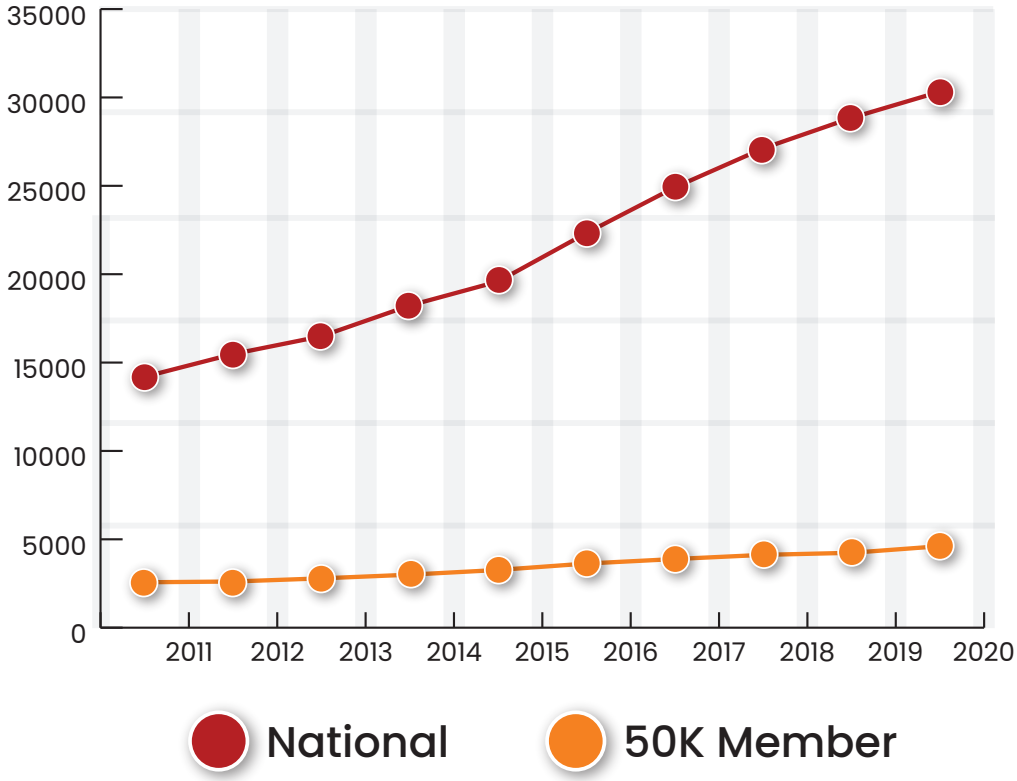
"SHPE has provided me with life long friendships, an internship with The Aerospace Corporation, and financial help. Without SHPE, I wouldn't have been at Aerospace for 5 summers, where I met other interns who were GEM Fellows. They convinced me to apply to GEM and pursue my graduate studies."

David Reynoso, University of Texas, Arlington, Aerospace Engineering, PhD Candidate

Number of Engineering Bachelor's Degrees Awarded to Women

Women have also seen a strong increase in the number of engineering bachelor's degrees received since 2016. Women made up more than half of the engineering bachelor's degrees earned in 2020 at approximately 30,000.

Figure 7: Women Earning Engineering Bachelor's Degrees



Totals: National – 217,523 50K Member – 32,146

Transforming the Industry

As The 50K Coalition observes its historic achievement of 50,000 diverse engineering graduates, we recognize that our work is about more than a number.

Our work signifies a seismic shift in the status quo. By fostering an environment where students from all backgrounds are welcomed, supported, and provided equal opportunities, Coalition members are dismantling systemic barriers that have historically hindered the potential of countless aspiring engineers. The 50,000 graduates emerging from this initiative won't just contribute to the workforce; they will be ambassadors of change, ushering in new paradigms of thought and action.

While we embrace this movement, let us remind ourselves that although the Coalition may be sunsetting, our mission is far from complete. As noted, while gains were achieved, not all groups realized similar improvements. The data is clear: the 50K goal was achieved largely due to the success of women and Hispanic students earning engineering degrees. More must be done to advance similar successes for Native and Black students if we expect to see change that is actually equitable.

We recognize the continued need to break down the barriers that dissuade underrepresented groups from pursuing engineering careers. Many underrepresented students come from backgrounds where access to quality primary and secondary education and advanced STEM resources is limited.

For many of those who do earn an engineering degree, bias, both implicit and explicit, have led to a systemic underrepresentation across engineering professions. We must ensure that the engineering profession is well-prepared to onboard and support the engineering leaders that the Coalition has worked diligently to move through the educational system.

Overcoming these deeply ingrained obstacles requires not only commitment, but also a long-term, sustainable, and strategic approach to altering perceptions. The 50K Coalition members, which include engineering deans, engineering professional society leaders, researchers, advocacy groups, corporate leaders, and government agency leaders, have the potential to continue catalyzing a transformative shift in the field of engineering even beyond the conclusion of the Coalition… and in fact, they must.

The 50K Coalition has illuminated a path toward a more inclusive and equitable engineering profession, demonstrating that change is possible through collective effort. The evolving landscape of engineering education bears witness to the beginnings of a paradigm shift, where various initiatives align with a common vision.

For this shift to reach its full potential, our call to action is clear:

Let us not disband the valuable connections and insights gained during our time with the 50K Coalition. Instead, let us build upon these foundations. Embracing a "Collective Impact" approach, we can magnify the impact of our endeavors by working together to effect meaningful change.

Let us - as organizations, academic institutions, corporations, and government agencies - continue to direct resources and funding to develop and sustain programs that address barriers to diversity in engineering. Addressing barriers will require tangible commitments from across the engineering ecosystem to ensure all students and professionals, regardless of their background, have an equal chance to excel.

In closing, The 50K Coalition's journey towards achieving 50,000 diverse engineering graduates is a testament to the power of collaboration and collective action. We invite all stakeholders to continue our shared commitment to shaping a brighter future for all aspiring engineers.

> *"Partnering with the other leadership circle organizations helped bring us closer together in a more collaborative way to share insights and best practices that have aided each organization in supporting our missions. As we have reached the once audacious goal of 50,000 diverse engineering graduates in the U.S. per year, analyzing the data clearly shows that many resources and systemic changes are needed to continue to make the field of engineering more inclusive. NSBE is committed to continuing the work with our partners to support African Americans on the pathway to success in STEM with our Game Change 2025 initiatives."*
>
> **Janeen Uzzell, CEO, National Society of Black Engineers**

Key Milestones

2015

- In January, the executive leadership teams of the NSBE, SHPE, and SWE met at SWE headquarters in Chicago, Illinois to discuss the national landscape of Black, Hispanic, and Women engineering baccalaureate degree recipients and what their organizations could do collectively to increase their constituents' representation in our nation's rapidly evolving population of engineering undergraduates.

  The three organizations established an ambitious goal to graduate 50,000 Black, Hispanic, and Women engineers annually by the year 2025. This goal challenged each organization to stretch beyond their currently projected number of engineering degree recipients.

  The group established The 50K Coalition to meet this goal and The 50K Coalition Leadership Circle to govern the initiative.

- In July, NSBE, on behalf of The 50K Coalition Leadership Circle, submitted a grant proposal to the United Engineering Foundation (UEF) to support a convening of our nation's engineering community. The purpose of the convening would be to create a mutually agreed upon framework and action plan to guide the group's collaboration and provide benchmarks for success.

- In October, the UEF committed to funding the historic convening, citing the meeting's interdisciplinary nature and its alignment with the engineering Founder Societies' vision "to advance the engineering arts and sciences for the welfare of humanity" and their mission "to support engineering and education by, among other means, making grants."

> *"STEM training and professions continue to provide a hostile gauntlet for marginalized communities and people: affinity groups and supportive professional organizations are key to maintaining health and persistence while we change systems for the better (so that all are welcome). AISES does extraordinary, necessary work.."*
>
> **Dr. Joanna Nelson, Founder and Principal, LandSea Science**

2016

- In February, the American Indian Science and Engineering Society (AISES) joined The 50K Coalition Leadership Circle.
- The United Engineering Foundation granted The 50K Coalition $82,000 to convene the inaugural National Convening and develop a Common Agenda and Common Metrics.
- In April, The 50K Coalition Leadership Circle held its first annual National Convening which included a cross section of leaders from the engineering ecosystem committed to addressing underrepresentation in the U.S. engineering workforce. The group began drafting a comprehensive framework that the engineering community would use to increase inclusion in engineering.
- In September, the National Science Foundation (NSF) awarded The 50K Coalition a $294,495 grant as part of its inaugural NSF INCLUDES program to enhance U.S. leadership in science and engineering by broadening participation in STEM.

2017

- In April, The 50K Coalition held its second annual National Convening where it established Action Network Groups (ANGs) aligned to support the Common Agenda items identified at the 2016 meeting.
- In October, The 50K Coalition received the National Action Council for Minorities in Engineering Award for its work to graduate 50,000 diverse engineers annually by 2025.
- The Shell Oil Company granted The 50K Coalition $50,000 to sustain the group's efforts.
- The United Engineering Foundation granted The 50K Coalition $200,000 to develop and support the organization's infrastructure.

2018

- The United Engineering Foundation granted $100,000 to The 50K Coalition.
- In May, The 50K Coalition held its third annual National Convening, at which the Action Network Groups (ANG) developed and organized strategies using Results-Based-Accounting (RBA). This approach helps organizations identify actionable strategies and make data-driven decisions to solve problems.

2019

- The National Science Foundation awarded The 50K Coalition a $58,799 supplemental grant for convening Action Network Groups to develop ANG strategies.
- Four years into The 50K Coalition's mission, the number of Black, Hispanic, Native American, and Women engineering graduates increased by 48% - on pace to exceed its goal of graduating 50,000 diverse engineers annually by 2025.

2020

- The A. James & Alice B. Clark Foundation awarded a $2.2 million, three-year grant to continue and expand the work of The 50K Coalition.
- The United Engineering Foundation granted The 50K Coalition $52,500 to help the organization build bridges between student chapter members of diversity and disciplinary societies, chapters, and clubs.
- More than 51,000 students from underrepresented backgrounds received engineering bachelor degrees ahead of The 50K Coalition's 2025 goal.

2021

- The 50K Coalition hired Clifton Morgan as the organization's program director, providing a dedicated resource to coordinate and advance the group's activities.
- In partnership with the National Academy of Engineering, The 50K Coalition held a National Forum to discuss and share promising practices in retention and transfer from community colleges to four-year engineering programs. The organization published a subsequent white paper, "Proceedings of the 50K Coalition's Community College Linkages Action Network Group's National Forum".
- The National Science Foundation granted The 50K Coalition $99,502 to help scale capacity and build minority and women engineering programs.
- The Terracon Foundation granted The 50K Coalition $50,000 to support the organization's work through its Action Network Groups and regional hubs.

2022

- The 50K Coalition held its fourth annual National Convening. The theme, "Bringing Data to Life", provided a platform for community college and undergraduate engineering students to share their personal experiences and challenges in pursuing an engineering education, highlighting the importance of mentoring and other psycho-social support to their journey.
- The 50K Coalition submitted a proposal to the National Science Foundation to help build the capacity of existing Multicultural Engineering Programs (MEPs) and Women in Engineering Programs (WEPs) on college campuses, and to establish new ones.

2023

- The 50K Coalition hosted the Maryland Regional Hub Convening and the Chicago Regional Hub Convening. The Regional Hub Convenings build upon the outcomes of the Coalition's May 2021 Community College Linkages Action Network Group's National Forum, focusing on coursework design, communication, partnership building, and addressing the marginalization of community college students.

Appendix

The 50K Coalition acknowledges and thanks the following organizations and institutions for their interest in and support of our mission.

Alamo Colleges District
American Association for the Advancement of Science
Auburn University
Austin Community College
Campbell University
Case Western Reserve University
Colorado School of Mines
Engineering Plus Alliance
Growth Sector
Higher Ed Insight
Houston Community College
Illinois Institute of Technology
Inclusive Engineering Consortium
Institute for American Apprenticeships
Iowa State University
Johnson Controls
Mathematical Sciences Institute
Michigan Dept. of Transportation
Michigan State University
Ohio State University
Rockwell
Santa Rosa Community College
Society of Petroleum Engineers
STEM Funders Network
University of Cincinnati
University of Kansas
University of Massachusetts, Amherst