2021 | ORGANIZATION OF BLACK AEROSPACE PROFESSIONALS

Diversity in the Aviation Workforce

BEFORE THE HOUSE AVIATION SUBCOMMITTEE



www.obap.org

RAISING HORIZONS

Chairman Larsen, Ranking Member Graves, and Members of the Subcommittee:

Thank you for inviting The Organization of Black Aerospace Professionals (OBAP) to testify on the state of diversity in the Aviation Workforce.

As an organization steeped in 45 years of advocacy and service, OBAP is proud to stand on a foundation that focuses on creating career opportunities in aerospace and aviation for underrepresented communities. At the core of all we do lies the mission to expose, educate and empower Black people and other marginalized communities to create pathways to success through youth programming, young professional mentorship, and career development.

Each year, we reach tens of thousands of youth program participants and thousands of aerospace professionals, removing barriers to entry and providing access to information that will begin to change the tide on diversity in our industry. We believe, with the support of partners at all levels, we will influence change.

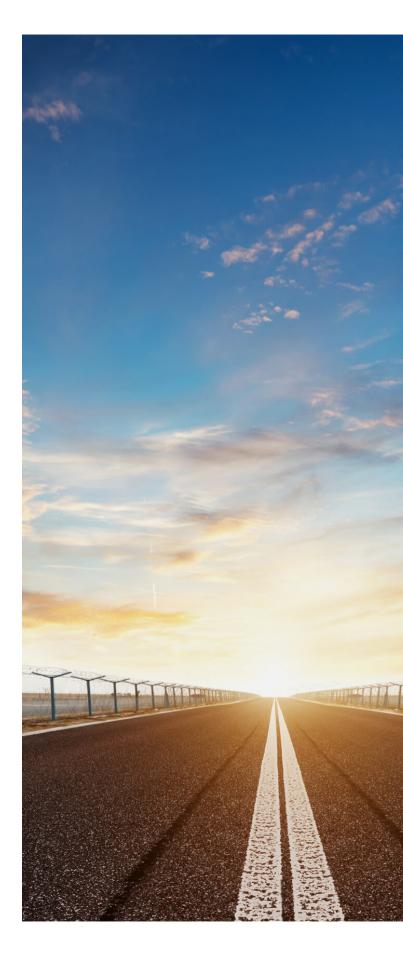


OUR HISTORY

Founded in 1976, the Organization of Black Aerospace Professionals (OBAP) is a nonprofit organization dedicated to the encouragement and advancement of minorities in all aviation and aerospace careers.

The organization quickly became a prominent advocate and thought leader for improving conditions industry-wide. OBAP's early leadership helped to increase available pilot positions and opportunities for Blacks and elevated the civil rights issue to a higher priority for government officials nationwide.

OBAP continues to change lives by creating pathways to success through educating youth, communities, and professionals—shaping an aerospace industry as diverse as the people we serve.



ABOUT OBAP Taking Flight



OBAP members encourage diversity in the industry by supporting aspiring aviation professionals through Project Aerospace, a series of scholarships, mentoring, training, and youth-focused education programs. Today, OBAP serves over 2,500 professional and collegiate members and reaches hundreds of thousands of youth each year through a workforce development model of outreach and educational programs.

- Aerospace Professionals In Schools (APIS): Through in-person and virtual classroom visits, APIS introduces youth to the limitless opportunities available in aerospace and aviation beginning at an early age.
- Aerospace Education Academy (ACE): OBAP's Aerospace Career Education (ACE) Academy provides middle and high school youth with exposure to opportunities in aerospace through week-long summer academies. Endorsed by the Federal Aviation Administration (FAA), OBAP has played a leading role in establishing ACE Academies nationwide to introduce, educate and guide diverse students towards careers in aerospace.
- **Explore Aerospace:** OBAP's newest program gives students the opportunity to deepen their knowledge of aviation and aerospace through a hands-on STEM-based curriculum from the comfort of home. Over the course of 12 weeks, students will learn from industry professionals, about principles of flight, aerodynamics, aerospace careers, meet guest speakers, go on virtual tours and so much more!
- **Solo Flight Academy**: The OBAP Solo Flight Academy (SFA) is a two-week submersion in aviation training designed to excite and deepen exposure to opportunities in aviation, culminating in an unforgettable solo flight experience.
- Luke Weathers Flight Academy: In 2018, OBAP launched the Lt. Col. Luke Weathers Jr. Flight Academy (LWFA) in Memphis, Tennessee. The Academy offers FAR 141 and 61 Flight training, UAV Pilot training, military rotor fixed-wing transition, Air Force candidate flight training, mentoring, and more.

With your support, OBAP can continue the programs and initiatives that have effectively led to positive and incredibly exciting change within aerospace for more than 45 years.

ABOUT OBAP



The Organization of Black Aerospace Professionals is the international voice for excellence in aerospace. Focused on strengthening the profession through advocacy, youth programming, continuing education, and celebrating excellence, OBAP promotes inspired collaboration for a more diverse industry.

OBAP's Corporate Partnership program offers companies a unique year-long marketing opportunity to establish a relationship with OBAP members. Funds generated from this program help support OBAP's programming, thus supporting our youth enrichment outreach and our members' work and professional development.

2,500 Active Members

OBAP members are part of a network of current and aspiring aerospace professionals dedicated to continuing the organization's 45-year legacy of influence in aerospace. OBAP stands as a leader in the aerospace community, providing programming to equip future aerospace professionals, and forging partnerships to ensure access and diversity in aerospace for decades to come.

16 Collegiate Chapters

OBAP collegiate chapters are registered student organizations chartered at colleges and universities nationwide. They provide essential guidance to aspiring aerospace professionals of color, offering mentorship, scholarships, and career readiness programs.

200,000 Youth

OBAP's Project Aerospace offers annual opportunities to inform and prepare aspiring aerospace professionals for their future careers. This dream-to-career commitment includes initial exposure to the industry through in-school career day events, immersive summer programs, flight training academies and professional development opportunities held nationwide.

Professional Development

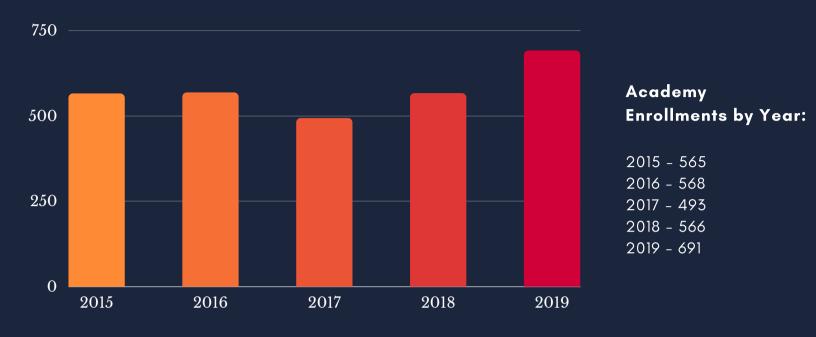
The Aerospace Professional Development Program (APDP) is designed to help candidates advance in their careers through mentoring, interview preps, and by offering unique training scholarships and internship opportunities.

32 ACE Academies

OBAP's ACE Academies feature lessons taught by aerospace professionals. Students will experience field trips, air traffic control towers, aircraft maintenance tours, airport tours, military base tours and so much more. All ACE Academy students will get to take flight at the controls during a discovery flight. OBAP's ACE Academies are truly an immersive aerospace experience!

8 Virtual Events

In response to COVID restrictions, OBAP has created a suite of virtual programs and events. This new outreach mechanism has allowed us to increase our reach to students and aerospace professionals worldwide.

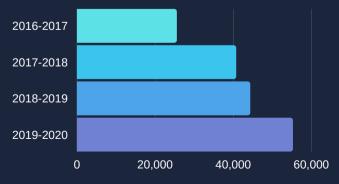


5 Year Snapshot of our ACE Academy Enrollments

The Past 4 Years of APIS

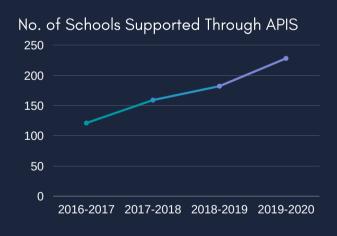
The past 4 years have been incredibly successful for our APIS program. Since 2016 APIS has reached **164,652** students nationwide. Each school year saw our APIS numbers surpassing the previous years's numbers, all thanks to the support of our members and volunteers.





No. of Students Reached by Year:

2016 - 2017: 25,500 2017 - 2018: 40,684 2018 - 2019: 44,277 2019 - 2020: 55,191



No. of Schools Visited:

2016 - 2017: 121 2017 - 2018: 159 2018 - 2019: 182 2019 - 2020: 228

Connecting with students at an early point in their lives, allows us to plant the seeds that we hope will be successfull careers in Aerospace. APIS allows students to be introduced to scholarship opportunities that are available to them as early as high school.

OUR IMPACT

LAUNCHING CAREERS CHANGING LIVES

Underrepresented/minority populations are not participating in Aerospace careers commensurate with their white counterparts, particularly in engineering,¹ and the aircraft pilot workforce.² A lack of access to quality career and work opportunities has numerous negative consequences on individuals and thereby their families and communities.

"Low-wage workers live in a vicious cycle that prevents them from moving up. Many work multiple jobs. The associated stress undermines mental and physical health. Indeed, that stress lowers cognitive functioning, creating a "bandwidth tax" equal to a loss of 13 IQ points. Performance suffers as it is harder to keep up good attendance, focus on the job, be productive, and do your best for customers or coworkers. Unsurprisingly, these workers find it hard to climb the ladder of opportunity that this country has historically provided."³

Furthermore, a lack of diversity in the aerospace industry only stands to weaken the United States' position of pre-eminence within the field.⁴ By failing to promote STEM and related disciplines to underrepresented populations, we only further contribute to the problem.⁴









"An individual who is equipped with the skills to identify and begin a career in the aerospace industry, will have better opportunities to improve the quality of life for themselves, their families, and communities."

We believe that a career in the aerospace industry creates a pathway that can help to significantly reduce the likelihood of individuals experiencing these effects. In a supporting relationship, increasing diversity within an industry has the effect of serving our communities and being socially responsible by maintaining a workforce that is reflective of the American society, increasing innovation through a diversity of ideas challenging the status quo, and increasing the return on investment of human capital by reaching out broadly to all communities where talent exists.⁵

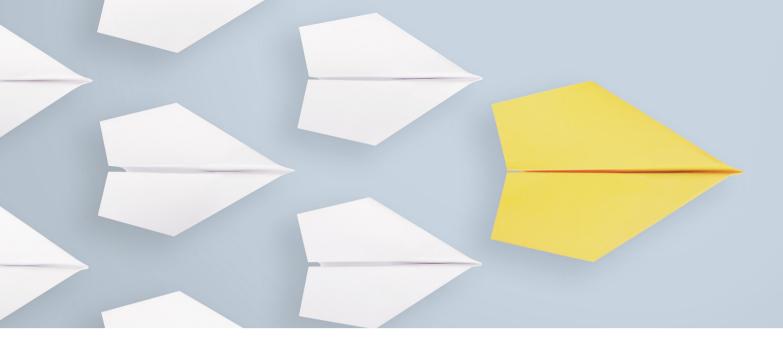
Our goal is to ensure that individuals in target populations are equipped with the skills to successfully pursue a career in the aerospace industry. The Aerospace industry continues to grow and provide career opportunities for candidates with the requisite skill sets. Additionally, these careers offer wages that consistently exceed that of national averages.⁶ "An individual who is equipped with the skills to identify and begin a career in the aerospace industry will have better opportunities to improve the quality of life for themselves, their families, and communities."

OUR GOALS LAUNCHING CAREERS CHANGING LIVES



OBAP endeavors to expose underrepresented populations to aerospace career opportunities by providing targeted educational, professional development, and mentoring programs.Our goals can be summarized as follows:

- To motivate youth to become educationally prepared for life
- To increase the number of underrepresented minorities and women professionals in aerospace and related industry careers
- To advocate for the concerns of our membership and constituencies
- To be at the forefront of crucial conversations that include minorities and women, or lack thereof, in executive leadership positions or on governing boards



OUR APPROACH PROGRAMMATIC IMPACT

Our programmatic model affirms and supports:

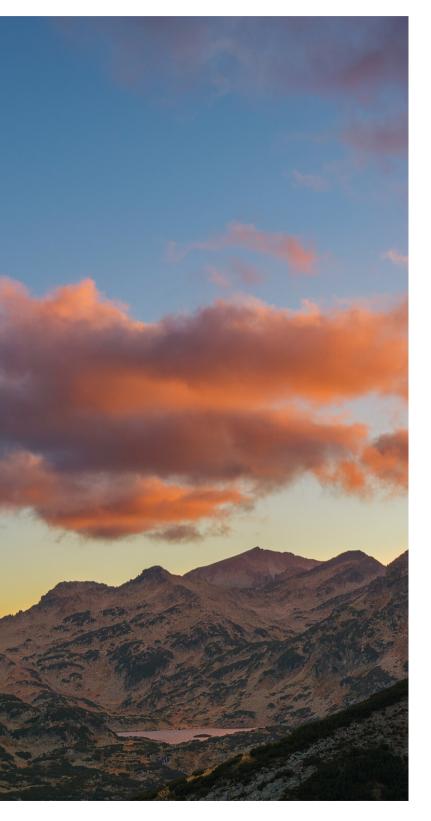
- Exposure to aerospace careers can help initiate an individual's desire to pursue a career in the Aerospace industry.
- Aerospace careers require average to above average specialized skills and preparation, which necessitates economic, academic, social, and career support resources.
- Mentoring programs have a net positive impact on personal attitudes, motivation, behaviors, relationships, health, and career outcomes.

To move our mission forward, we will focus on:

- **Building Awareness**: We activate a network of over 2500 aerospace professionals to participate in school visits on a national level. We inform students about aerospace career tracks, and more importantly illustrate successful pathways.
- **Preparing for Success:** We've built several programs intended to address each learning phase from Elementary through College and beyond, to provide exposure to aerospace concepts, opportunities to build skills, and connect with mentors to help guide the way.
- **Advocacy**: We work hard to form relationships with industry partners to ensure our voice is heard on behalf of our members and the communities we serve. Through our partnerships, we have opportunities to steer the conversation and reinforce the positive effects of diversity.

YOUR PARTNERSHIP MATTERS

TOGETHER, WE DO MORE



Without our corporate partners, we'd never be able to do what we do – provide programming that exposes youth to the endless possibilities of aerospace, and empower professionals to earn rewarding impactful careers. The generosity of partners like you propels our mission and our communities forward.

When you become a partner, you join a community of bold companies that share our vision of an aerospace industry as diverse as the world it serves. Together, we're making a big impact and if you join us, you can too. Strategic partnerships can be tailored to your needs and our structure allows you to execute a global campaign at the grassroots level.

A corporate partnership with OBAP can give your organization a way to enunciate your social responsibility strategy clearly and concisely – helping build a world where everyone has the opportunity to reach their dreams and elevate their future. Create a meaningful relationship with the impact, history, and brand value of OBAP and make yourself stand out with your consumers, vendors, employees, peers, or business partners. **OBAP PROGRAMS**

OBAP 2021 PROGRAMS GUIDE

OUR MISSION

OBAP is a world-leading organization that changes lives by creating a pathway to success through educating youth, communities, and professionals shaping an aerospace industry as diverse as the people we serve.

AEROSPACE PROFESSIONALS IN SCHOOLS (APIS)

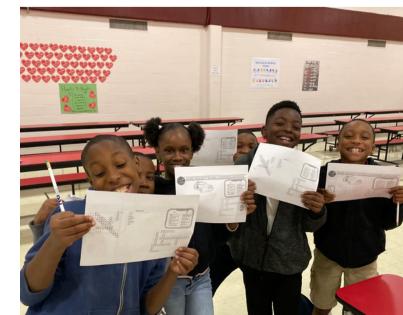
APIS introduces youth to the limitless opportunities available through careers in aerospace and aviation beginning at an early age. APIS curriculum piques the interest of children, ages 6 - 10, through elementary science clubs and career days. Middle school-aged youth receive broader education and more in-depth exposure through career fairs, community events.

Due to COVID, APIS programs are also presented virtually, offering the opportunity to reach an unlimited number of youth around the world.

APIS prepares aspiring aerospace professionals for fruitful careers. Since 1992, the program has reached over 500,000 people, many of whom hold positions as commercial pilots, aircraft maintenance and flight dispatchers, business managers, and more.







AEROSPACE CAREER EDUCATION ACADEMY

OBAP's Aerospace Career Education (ACE) Academy provides middle and high school youth with exposure to opportunities in aerospace through week-long summer academies.

Endorsed by the Federal Aviation Administration (FAA), OBAP has played a leading role in establishing ACE Academies nationwide to introduce, educate and guide diverse students towards careers in aerospace. In 1992, OBAP partnered with the FAA to support two ACE Academies reaching 41 students. In 2019, OBAP hosted 33 academies with over 690 students in attendance.

OBAP's immersive ACE Academies are tailored to provide exposure to the history of aviation, fundamentals of aerodynamics, air traffic control procedures, aerospace technologies, and introductions to aerospace careers. Now in 32 locations including Puerto Rico and the U.S. Virgin Islands, with two terms in Memphis and Louisville, the program engages 1,100 students on an annual basis.

To date, OBAP's 30+ ACE Academies have engaged more than 30,000 youth in person, and in 2020, reached hundreds of students virtually.





EXPLORE AEROSPACE

OBAP's exciting new Explore Aerospace (EA) program gives students the opportunity to deepen their knowledge of aviation and aerospace through a hands-on STEM-based curriculum from the comfort of home.

Each Saturday over the course of 12 weeks, students will learn from industry professionals, about principles of flight, aerodynamics, aerospace careers, meet guest speakers, go on virtual tours and so much more!







GIRLS LAUNCH

Girls LAUNCH provides girls and women of all ages with interactive experiences and intimate conversations with female aerospace professionals to boost interest in the unlimited opportunities in aerospace at a young age.

Attendees have the opportunity to explore the many facets of aerospace through virtual tours, interact with professional women in aerospace careers, and participate in immersive, age-appropriate breakout sessions. Registrants also have access to the Girls LAUNCH Digital Library, an interactive collection of career stories and exciting hands-on activities in the Girls LAUNCH Magazine.

Girls LAUNCH is part of OBAP's plan to introduce young women to the limitless possibilities in aerospace, which we hope, in time will lead to an increase in diversity throughout the industry.

In its inaugural year, Girls LAUNCH hosted over 700 young women and girls for a day of exploration and empowerment! **PROGRAM PARTNERSHIP**

OBAP SOLO FLIGHT ACADEMY



The OBAP Solo Flight Academy (SFA) is a two-week submersion in aviation training designed to excite and deepen exposure to opportunities in aviation, culminating in an unforgettable solo flight experience. Tailored and restricted to young adults ages 16 – 19, the academic curriculum establishes the foundation of a productive and successful career in aviationrelated professions.

While enrolled in the academy, students will receive approximately 40 hours of cursory and condensed ground school detailing federal air regulations, basic meteorology, navigation, basic engine theory, aircraft performance, basic maneuvers, STEM core principles, and the Airman's Information Manual.

Upon successful completion of the ground school, students will receive at least 10 hours of flight time. Once Federal Aviation requirements are met, the student will be cleared to serve as a "sole manipulator" for their very first time.





SCHOLARSHIP PROGRAM

OBAP is dedicated to supporting minority interests and placement in aerospace careers. To date, OBAP has awarded \$5.8 million in scholarships to more than 470 diverse recipients nationwide.

The scholarships, made available through strengthened partnerships, allow award recipients to advance or pursue diverse aerospace careers.

This year, OBAP is introducing new ways to support our scholarship program. Sponsors can opt to sponsor one or more of our new OBAP Core Scholarships designed to reach the largest number of students across a spectrum of focus areas.

2021 CORE SCHOLARSHIPS

SCHOLARSHIP NAME

OBAP Aviator's Legacy Scholarship

OBAP Excellence in Academics Scholarship

OBAP Tech-Ops Pathway Scholarship

OBAP Enabling the Industry Scholarship

OBAP Community Leaders Scholarship

OBAP Stars and Stripes Scholarship

SCHOLARSHIP DESCRIPTION

Honoring the legacy of aviators who have paved the way.

Supporting and celebrating students who are setting the standard academically.

Supporting those who keep the fleet flying.

Embracing all who make aerospace possible.

Lifting those who lift others.

Honoring those who answer the call of duty.

Sources

(1)Illumoka, A., Milanovic, I., Grant, N. (2017).

An Effective Industry-Based Mentoring Approach for the Recruitment of Women and Minorities. Journal of STEM Education, 18(3), 13-19. Retrieved September 14, 2020, from https://www.jstem.org/jstem/index.php/JSTEM/article/view/2 102

(2)Ison, D. C., Herron, R., & Weiland, L. (2016). Two Decades of Progress for Minorities in Aviation. Journal of Aviation Technology and Engineering, 6(1). doi:10.7771/2159-6670.1141

(3)Ton, Z. (2020, August 17). Equality in the U.S. Starts with Better Jobs. Retrieved September 14, 2020, from

https://hbr.org/2020/08/equality-in-the-u-s-starts-withbetter-jobs

(4)Geis, J. P.; Garretson, P. A. (2015). An Aerospace Nation (4th ed., Vol. 9, Winter 2015, pp. 2-17, Rep.). Maxwell AFB, AL: Air University Press. Retrieved September 14, 2020, from https://www.jstor.org/stable/pdf/26271275.pdf

(5)U.S. Office of Personnel Management. (2020). Frequently Asked Questions. Retrieved September 14, 2020, from https://www.opm.gov/faqs/QA.aspx?fid=72bcd219-0b9f-4de8-b366-4817028fbc6e

(6)United States Department of Labor. (2020, March 31). May 2019 National Occupational Employment and Wage Estimates. Retrieved September 14, 2020, from https://www.bls.gov/oes/current/oes_nat.htm

