



A GUIDING FRAMEWORK FOR

SSP INTERNATIONAL'S 10-YEAR PLAN

Our mission is to reach 10,000 students each year, with at least 50% coming from historically underserved communities, with challenging, engaging, and transformative science experiences.



WHY SCIENCE MATTERS

Astrophysicist and researcher Paul M. Sutter on how science has the power to transform lives and communities around the world.

We all want a better future for our children and envision a clean world with abundant resources and opportunities for all. What we cannot achieve ourselves we must rely upon the next generation to accomplish—which they can only do if we provide them with the tools they need to build a better future.

Perhaps the most vital tool we can offer them is to experience the fundamental values of science. And conversely, science itself has the most to gain from sharing these values with our most underrepresented populations.

We can only drive the next series of scientific advancements by leaving no bright minds behind. Science requires creative, out-of-the-box thinking, where fresh minds, powered by a diversity of backgrounds, perspectives, and lived experiences, bring new insights to our most pressing challenges.

Unfortunately, some students face almost insurmountable institutional barriers to joining the scientific enterprise. We need to reach them, open pathways for them to realize their aspirations, and most importantly share with them the core values of science.

Science is about curiosity, about systemically investigating the natural world, about always wondering what's around the corner, what's beyond the horizon, what's possible just beyond our reach.

Science is about creativity, about a special kind of imagination honed on the whetstones of rationality and skepticism,

sharpened to find useful, productive answers to difficult problems.

Science is about collaboration, about a diversity of minds, voices, and thoughts joining in the grand quest of human inquiry, where all can feel at home in a story that we write together.

Through sleepless nights and countless days, scientists take these values and expand the sphere of human knowledge—transforming oceans of ignorance into islands of fruitful wisdom.

And from their work come many gifts. One is the wonders of the cosmos unveiled before us, free and accessible for all to enjoy. Another is the understanding necessary to create the technological miracles of the modern age. And the last gift is the most important of all: the ability to create a better world.

Curious, creative, and collaborative—these are the hallmarks of a wise and successful approach to life from a scientific lens. This is the approach we want of our future capable leaders and dependable doers. Such elements of science, activated and put into action, hold the power to transform lives and communities across the globe.

In science, we find the tools we need to build the future we dream of, and it is our responsibility to place these tools in the hands of the generation that will need them the most.



Paul M. Sutter, Ph.D.

EXECUTIVE SUMMARY

The Summer Science Program was launched in 1959 to inspire high school students to pursue careers in STEM disciplines at the beginning of the space race and during the Cold War.

Although much has changed in the world from a geopolitical perspective, the core elements of hands-on research and critical thinking continue to be the foundation of our curricula. We believe scientific inquiry, principles, and practices cultivate a solid foundation for students, equipping them with the skills needed to navigate and contribute to the modern world.

Now known as SSP International (SSPI), we are embarking on a bold new chapter, driven by a vision to transform individuals through science education and empower future generations. Over the past year, we engaged in an extensive strategic planning process, including a detailed SWOT

analysis, three board retreats, and monthly Strategic Planning Committee meetings. This rigorous process allowed us to evaluate our current state and redesign our mission, vision, values to create a 10-year vision and plan.

Our new strategic plan focuses on three pillars: Scale, Diversify, and Transform. We aim to build a scalable operation, diversify our programs and participants, and foster a strong community. Leveraging our strengths—passionate alumni engagement, rigorous academic curricula, dedicated staff, a strong reputation, and a supportive environment—we are committed to making science education more inclusive, impactful, and accessible. By targeting broader communities, increasing collaboration, and leveraging our strengths, we are poised to create lasting change that extends beyond summer and beyond science.

OUR MISSION, VALUES & VISION

OUR MISSION

SSPI provides students with immersive, transformational opportunities to learn, do, and belong in science.

OUR VALUES

Challenge: We engage ourselves and one another, building an environment of constant discovery.

Collaboration: We embrace immersive experiences, fostering teamwork, trust, enthusiasm, and innovation.

OUR VISION

We envision a world in which science inspires and informs humanity.

Community: We build lifelong community that thrives on integrity and collective growth. We develop a lifelong sense of togetherness and collective support.

Inclusion: We cultivate an inclusive environment where diversity fuels curiosity and transformation.

THE NEED

At SSPI, we are driven by a mission far greater than simply providing access to science education. We aim to ignite the passion and imagination of young minds, offering immersive and transformational opportunities that go beyond the classroom. Our goal is to create a world where science inspires and informs humanity, where every student feels the thrill of discovery and the joy of scientific exploration.

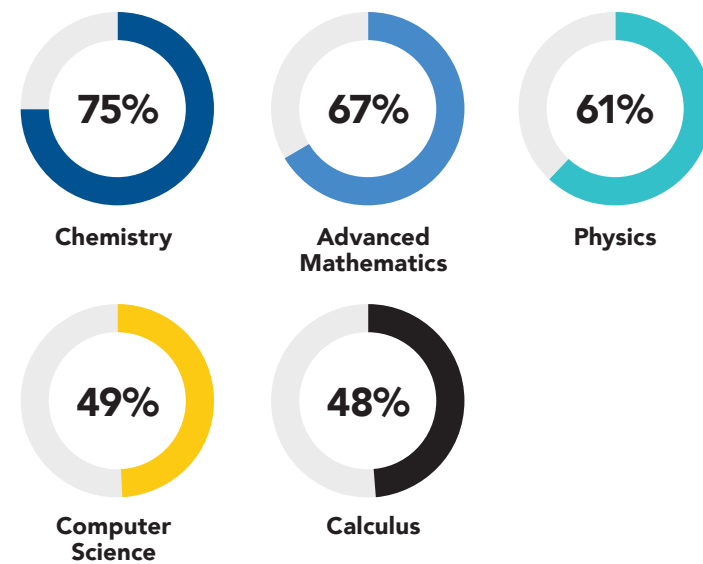
Access to mathematics, science, and computer science courses is limited across public high schools in America. As of the 2021–2022 school year, only 75% of the approximately 26,200 high schools offered chemistry, 67% offered advanced mathematics (i.e. Pre-calculus, Calculus, and Statistics), 61% offered physics, 49% offered computer science, and 48% offered calculus. This lack of access is particularly acute in public high schools with high enrollments (>75%) of Black and Latino students. These schools offer significantly fewer STEM courses than schools with low enrollments (<25%) of Black and Latino students. For example, only 35% of schools with high enrollments of Black and Latino students offer calculus, compared to 54% of schools with low enrollments of these students (U. S. Department of Education, Civil Rights Data Collection, 2021–22).

The consequences of this STEM education inequality are profound and far-reaching. When groups such as women, underrepresented individuals, or those from economically disadvantaged backgrounds lack access to quality STEM education, it perpetuates a cycle of limited opportunities and reduced representation in STEM fields. This not only hampers personal growth and career prospects but also

leads to a loss of diverse perspectives and innovative ideas in scientific and technological advancements. Addressing STEM education inequality is crucial for fostering inclusivity, promoting equity, and unlocking the full potential of individuals and society in our rapidly evolving global landscape.

All children need access to science education, not only to become scientists but to grow as informed stewards of the earth and active contributors to society. A solid foundation in science equips students with the critical thinking skills necessary to make informed decisions about health, the environment, and technology in their everyday lives, thus empowering them to solve complex problems, and play a role in addressing global challenges and societal progress.

HIGH SCHOOL PROGRAM ACCESS FOR 2021–2022



THE OPPORTUNITY

In 2023, SSPI received a transformative gift from alumnus Franklin Antonio, which triggered a strategic planning process aimed at propelling the organization into a new era of growth and impact. The resulting plan, structured around three distinct phases—Scale, Diversify, and Transform—charts a course for SSPI’s evolution and expansion. Through strategic initiatives such as building a scalable infrastructure, diversifying program offerings, fostering intentional

community building, and reaching underserved communities, SSPI is uniquely positioned to address the gaps in science education.

SSPI’s commitment to inclusivity and excellence ensures that all participants, regardless of their background, receive the support and resources needed to succeed. This transformative approach not only helps bridge the gap in STEM education but also inspires a new generation of leaders who are well-prepared to tackle global challenges and drive scientific progress. By scaling its programs, diversifying its offerings, and intentionally building communities, SSPI ensures that it remains a beacon of opportunity and innovation in science education.

STRATEGIC FRAMEWORK

The 10-Year Vision

To reach 10,000 students each year, with at least 50% coming from historically underserved communities, with challenging, engaging, and transformative science experiences.

GOAL 3 TRANSFORM

Catalyze meaningful change & growth.

GOAL 2 DIVERSIFY

Expand perspectives, subject matter, and revenue.

GOAL 1 SCALE

Build a more scalable operation for growth.

SCALE

S1

Build a Scalable Infrastructure

By enhancing internal systems, processes, and resources, SSPI aims to accommodate increasing demand while maintaining operational efficiency. This entails investments in technological upgrades, streamlined administrative procedures, and optimized resource allocation.

TACTICS

- Enhance board governance structures and practices.
- Continue to strengthen staffing structure through hiring and professional development.
- Implement system efficiencies to streamline operations.

KEY PERFORMANCE INDICATORS

- Reduction in administrative overhead costs as a percentage of total expenses.
- Improvement in operational efficiency metrics, such as program delivery timelines and resource utilization.
- Increase in the organization’s capacity to accommodate a growing number of participants and programs.
- Enhanced stakeholder satisfaction, measured through feedback on improved organizational processes and responsiveness.

S2

Explore Capacity Building Partnerships

SSPI will seek strategic partnerships with aligned institutions or organizations to bolster its capacity and enrollment. By identifying potential partners, cultivating collaborative relationships, and exploring opportunities for joint initiatives or resource-sharing, SSPI aims to enhance its impact and expand its program offerings. This will enable SSPI to tap into additional expertise, networks, and funding sources, thereby accelerating its growth and amplifying its mission impact.

TACTICS

- Establish Standard Operating Procedures (SOPs) for existing and explorational partnerships.
- Conduct a thorough assessment of current partnerships to identify areas for growth and improvement.
- Leverage partnerships to secure additional resources such as funding, expertise, and access to new markets or audiences.
- Engage the board in partner identification and exploration.

KEY PERFORMANCE INDICATORS

- Number of strategic partnerships established with institutions or organizations focused on capacity building.
- Increase in program reach and participation resulting from partnership initiatives.
- Enhancement in organizational capabilities and resources through collaborative efforts.
- Measure of mutual benefit and impact achieved through partnership projects.

S3

Expand the Reach of SSPI

SSPI aims to broaden the accessibility of its classic summer science programs to new geographic regions and communities, reaching a broader group of students and providing them with transformative educational experiences. By identifying underserved areas, establishing new program locations, and implementing outreach initiatives, we will expand our reach and impact.

TACTICS

- Expand program sites to reach new communities and increase program accessibility, extending the organization's reach and impact to underserved areas and populations.
- Enhance and expand the curriculum to cater to diverse learning needs and interests, ensuring that programs remain relevant and engaging for participants from various backgrounds and disciplines.

KEY PERFORMANCE INDICATORS

- Number of new program locations established in underserved areas.
- Increase in program enrollment from previously underrepresented demographics.
- Measure of participant satisfaction and engagement with new program initiatives.
- Impact assessment on communities served by expanded program reach.
- Tracking of alumni engagement.



S4

Increase Representation Among Students

SSPI prioritizes fostering diversity and inclusivity among program participants by ensuring equitable access to its transformative educational experiences. By implementing targeted recruitment efforts, offering financial aid and scholarships, and creating supportive environments that celebrate diversity, we will increase representation among participants and promote equity and social inclusion within SSPI.

TACTICS

- Diversify participation by implementing initiatives such as financial aid, scholarships, and active recruitment.
- Promote inclusivity and equity within the program community by removing barriers and providing equal opportunities.
- Develop program preparation strategies to support participants in their journey toward success.
- Collaborate with partner organizations to widen the recruitment pool.

KEY PERFORMANCE INDICATORS

- Percentage increase in the diversity of program participants across various demographic categories.
- Improvement in participant retention rates from underrepresented groups.
- Measure of participant satisfaction with diversity and inclusion initiatives.
- Impact assessment on participants' academic and personal development outcomes.

S5

Broaden Perspectives, Experiences & Backgrounds

To cultivate a diverse and inclusive organizational culture, SSPI focuses on broadening the perspectives, experiences, and backgrounds of its board and staff members. By assembling a team with diverse expertise, racial and ethnic identities, backgrounds and viewpoints, and creating space for open dialog and collaboration, SSPI will enrich decision-making processes and foster innovation within the organization.

TACTICS

- Enrich board discussions with diverse perspectives from non-alumni members.
- Establish a specialized advisory board for up-to-date insights.
- Promote Diversity, Equity, and Inclusion practices within the organization.
- Continue the transition from an operational board to a governance board.

KEY PERFORMANCE INDICATORS

- Percentage increase in the diversity of board and staff members across various demographic categories.
- Measure of staff satisfaction and engagement with diversity and inclusion initiatives.
- Impact assessment on organizational culture and effectiveness resulting from diversity efforts.

S6

Expand Curriculum Across Age & Subject

By developing and offering curriculum enhancements that cater to a broader range of interests, age groups, and learning styles, SSPI seeks to engage participants across various stages of their academic journey. This strategy involves collaborating with subject matter experts, conducting needs assessments, and designing tailored educational experiences to enrich the learning experience.

TACTICS

- Develop new programs to serve targeted groups.
- Engage educators in the development of new curriculum.
- Identify and initiate partnerships to expand opportunities for participants.
- Institutionalize innovation in the curriculum for flexibility and continuous improvement.

KEY PERFORMANCE INDICATORS

- Number of new curriculum enhancements developed and implemented across different age groups and scientific subjects.
- Participant satisfaction with the variety and relevance of educational offerings.
- Measure of participant engagement and learning outcomes resulting from expanded curriculum initiatives.
- Impact assessment on participants' academic and career trajectories.

S7

Diversify Funding Sources for Sustainability

SSPI will redesign its revenue model to diversify revenue streams and reduce reliance on any single funding source, thus mitigating financial risks associated with fluctuations in funding availability. Pursuing grants, cultivating individual and corporate donors, and exploring earned income opportunities will provide the resources needed to support its mission and strategic initiatives.

TACTICS

- Design a comprehensive Fund Development Plan.
- Increase investment in development efforts like fundraising and donor cultivation to diversify revenue streams, support program growth, and ensure financial stability.
- Explore alternative revenue sources and business models.

KEY PERFORMANCE INDICATORS

- Increase in the percentage of revenue generated from diversified funding sources, such as grants, donations, and earned income.
- Number of new funding partnerships established with individual and corporate donors.
- Measure of financial sustainability and resilience, assessed through financial stability metrics.
- Impact assessment on programmatic initiatives supported by diversified funding streams.

S8

Expand Brand Awareness

By strategically enhancing its online presence and branding efforts, SSPI endeavors to foster meaningful connections with its audience, building trust, influence, and visibility. Through partnerships with reputable organizations, virtual educational programs, and active participation in global outreach initiatives, SSPI seeks to establish itself as a trusted authority in scientific education and advocacy. This will strengthen SSPI's standing on a national and international level and encourage cross-cultural exchange and collaboration in scientific education.

TACTICS

- Utilize targeted marketing and outreach to attract participants and partners.
- Position the organization as a leader in education and innovation.

KEY PERFORMANCE INDICATORS

- Measure of audience engagement and interaction with SSPI's educational content and initiatives.
- Number of partnerships established with institutions or organizations.
- Continued program participation from international participants.
- Impact assessment on cross-cultural understanding and collaboration resulting from global outreach efforts.



TRANSFORM

S9

Expand Student Access

SSPI is dedicated to providing enhanced support, resources, and opportunities for participants. By investing in the development of participants' skills, knowledge, and networks, SSPI aims to empower them to pursue their academic and career aspirations with confidence. This strategy involves offering mentorship programs, facilitating research opportunities, and providing access to academic and professional development resources to equip them with the tools and confidence to excel in their future endeavors.

TACTICS

- Maximize outcomes by offering personalized support and mentorship.
- Target untapped populations and ensure program accessibility. Continuously evolve the curriculum to meet changing needs.
- Stay current on trends and technologies for impactful educational experiences.

KEY PERFORMANCE INDICATORS

- Participant satisfaction with the quality and effectiveness of mentorship and support programs.
- Number of participants engaged in research opportunities or academic and professional development activities.
- Measure of participants' academic and career achievements attributed to SSPI's support and resources.
- Impact assessment on participants' long-term success.

S10

Ensure Programmatic Impacts

By monitoring program effectiveness and soliciting feedback from stakeholders, SSPI aims to identify areas for improvement and innovation. Conducting program evaluations, implementing feedback mechanisms, and incorporating best practices in program design and delivery will ensure programmatic impacts to enhance the quality and relevance of SSPI's educational experiences and strengthen its reputation as a leader in science education.

TACTICS

- Establish clear metrics and benchmarks for measuring program impact and effectiveness.
- Expand impact assessment beyond direct participants to evaluate broader societal and economic outcomes.
- Maintain focus on delivering transformational impact to drive positive change.

KEY PERFORMANCE INDICATORS

- Improvement in participant satisfaction scores and feedback ratings.
- Measure of participant learning outcomes and skill development achieved through SSPI programs.
- Impact assessment on participants' academic and personal growth resulting from SSPI's programmatic efforts.

S11

Invest in Intentional Community Building

SSPI places a strong emphasis on cultivating a sense of belonging and connection among participants, alumni, staff, and stakeholders, wherein individuals feel valued, supported, and empowered. This strategy involves implementing community-building initiatives, organizing networking events, and facilitating mentorship opportunities to enhance participant engagement and retention and strengthen SSPI's network and collective impact.

TACTICS

- Codify programming that establishes a lifelong community for participants to encourage networking and collaboration.
- Invest in long-term engagement strategies with alumni.
- Foster innovation by engaging with scientific communities and experts.

KEY PERFORMANCE INDICATORS

- Measure of participant and alumni engagement in community-building activities and events.
- Improvement in participant retention rates and alumni involvement in SSPI initiatives.
- Number of successful mentorship connections facilitated through SSPI's community-building efforts.
- Impact assessment on participants' sense of belonging.
- Satisfaction, and long-term involvement with SSPI's community.



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