



2022 Collective Impact Action Summit

Diversifying Funding to Sustain Collective Impact: The Biogen STAR Initiative

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Panel Presenters Introductions



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About Root Cause

Root Cause is a nonprofit consulting team that helps drive effective and enduring social change.

Our mission is to empower communities to build, improve, and sustain social change initiatives that enable all people to thrive. Since 2004, we've helped over 400 nonprofits, public agencies, philanthropists, and other funders achieve their goals while advancing racial and economic equity and justice.



Audience Poll - who's here?

Are you a ...

- Funder
- Backbone organization
- Nonprofit organization who currently participates in collective impact
- Nonprofit organization who is learning about collective impact
- Community member
- Private sector organization
- Public sector organization
- Other

**This will help us tailor our conversation to the audience as best as possible.*

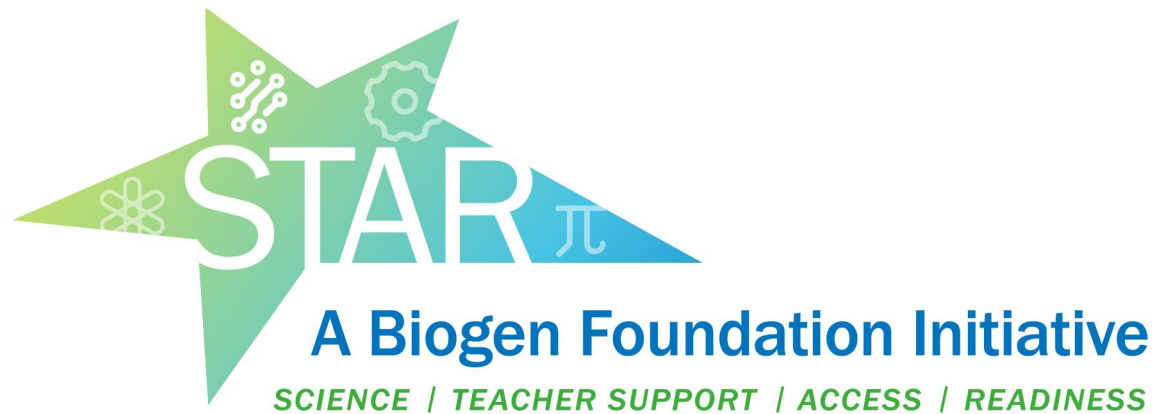




Overview of Biogen Foundation STAR Initiative

The Origins of STAR

In 2017, the Biogen Foundation engaged Root Cause to help design and implement a new, multi-year, collective action philanthropic initiative in STEM education. In 2018, the Biogen Foundation launched **STAR (Science, Teacher support, Access & Readiness)**, a \$10M, four-year investment designed to drive STEM education equity in Cambridge and Somerville, Massachusetts. In 2021, given the continued impact of the pandemic and the vital roles STAR grantees play in supporting some of the region's most vulnerable children and families, the Biogen Foundation committed to funding STAR through year 5 (2023).



Through STAR, Biogen is:

- **Investing in six high-performing nonprofits** that serve students in grades 6-14 and
- **Coordinating a multi-stakeholder network** that serves students historically underrepresented in STEM college and career pathways, notably, students of color.

STAR Partner Information

STAR Grantees



School District Partners



Funder



Network design & facilitation



Key Components of STAR

- One of the most important and unique aspects of the STAR collective action initiative is the **engagement of both school districts in the network**.
- STAR liaisons from each grantee organization, and each school district, **have met monthly and worked collaboratively for over three years** with the shared goal of advancing STEM education equity.
- The myriad challenges the pandemic has posed for students and families has highlighted the **critical role that out-of-school time organizations play in leveling the playing field** for students who typically do not have equal access to STEM exposure and enrichment opportunities.

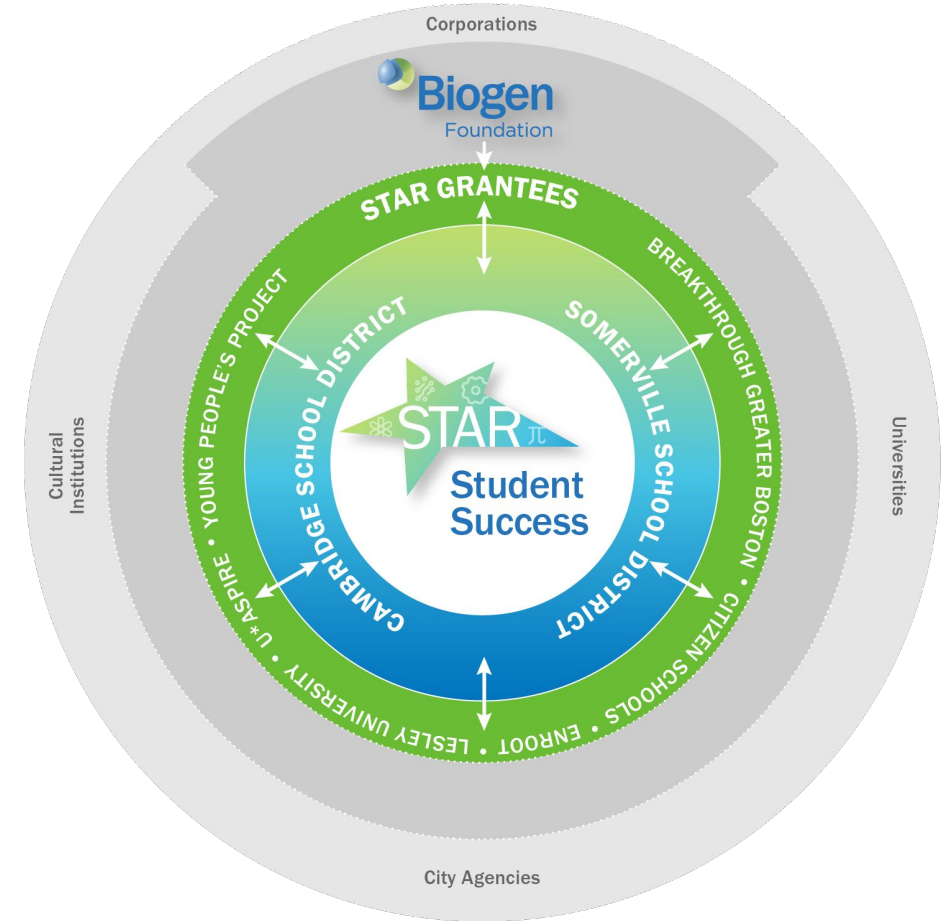


**Grantee
Organizations**

STAR's Collective Action

The STAR Initiative has helped grantee organizations and schools build and deepen relationships as a foundation for a coordinated, sustainable network whose collective impact is greater than the sum of its partners.

- **STEM ecosystems cultivate relationships that maximize each stakeholder's unique contribution to ensuring all students have equitable access to STEM resources and opportunities.**
- Typically, these networks have one backbone organization, or network manager (Root Cause in the case of STAR), that facilitates **collective action** amongst stakeholders.
- These can include: schools and districts, out-of-school-time programs, leading STEM institutions (i.e. higher education, industry leaders, science centers, etc.), the private sector, public agencies and other community-based organizations, young people, and their families.
- There is no better place poised to lead the way in building a strong local STEM education ecosystem than the Greater Boston area, home to Kendall Square - one of the world's most powerful life sciences and technology hubs.



STAR Students Served Years 1-4



Number of Youth Served in STAR Years 1-4 (2018-2022)

| | BTGB # of students served | Enroot # of students served | YPP # of students served | uAspire # of students served | Citizen Schools # of students served | Lesley University # of students served | Total unique* students served in years 1-3 |
|--|------------------------------|--------------------------------|-----------------------------|---------------------------------|---|---|--|
| Cambridge | 335 | 159 | 246 | 859 | N/A | 30 | 1,456 |
| Somerville | 171 | 177 | 21 | 443 | 1,169 | 525 | 2,342 |
| Organization Total students served in both districts | 506 | 336 | 267 | 1,302 | 1,169 | 555 | 3,798 |



Challenges in Sustaining Collective Impact Initiatives

What are the biggest challenges in sustaining a collective impact initiative?

Breakout Groups - 10 minutes

What are 2-3 challenges you are experiencing or thinking about in terms of sustaining Collective Impact over time?

For time purposes please do not go around and do intros. Only introduce when/if you choose to speak.

Panel Discussion

For both of our panelists

- What aspects of the work happening in STAR are important to highlight or tell stories about in order to draw in more funding partners?



Measuring STAR's Impact

Assessing STAR's Impact

The collaboration of school districts and grantees led to a proposal from the Superintendent of Somerville public schools for embedding staff in districts to help analyze the impact of this collective action initiative.

- In Year 3, to support and optimize the connection between the work of schools and STAR grantee organizations, Biogen Foundation funded two new part-time STAR Data Specialist positions who work for the Cambridge and Somerville public school districts. Having positions embedded in the districts can maximize data sharing amongst all the stakeholders and enable analysis of multiple angles of STAR's impact.
- STAR Data Specialists were hired in both Cambridge and Somerville at the end of 2020. The Data Specialists worked with the STAR data and evaluation committee, and Root Cause, to develop an initial evaluation plan.

Assessing STAR's Impact

The STAR Data Specialists developed an initial evaluation plan

| Table 1. STAR Outcomes & Research Questions | |
|---|--|
| Outcomes | Research Questions |
| General: Understanding who is being served | How have the profiles of students served in STAR programs changed since the STAR initiative began? |
| | <i>What is the profile of students served by STAR initiative programs?</i> |
| Short Term: Students develop interest in STEM | How has participation in STAR programs impacted the interest students have in STEM? |
| | <i>How do students' interests in STEM compare between those enrolled in STAR programs and peers who are not?</i> |
| Mid-Term: Students develop capacities to be successful in STEM | Have students improved habits of mind for 21st century learners? (Ex. persisting, problem solving, communication) |
| | <i>Are STAR students more likely to enroll and persist in high level math and science courses or take additional STEM courses?</i> |
| Data capturing changes in STAR students over time (Bold) | |
| <i>Data comparing STAR students with non STAR students (Italicized)</i> | |

Table from STAR Evaluation Plan Spring 2021

Assessing STAR's Impact



And yet Black and Latinx students are typically less prepared to pursue STEM course pathways.

For example:



Competency in math is foundational for students to be able to successfully move into STEM college or career paths.

30th

US global ranking in math

In Cambridge, just

29%

and

38%

Black 8th graders

Latinx 8th graders

Are meeting or exceeding expectations in math

vs

72%

White 8th graders

76%

Asian 8th graders

STAR is Helping Students Make Gains in Math



STAR 9th Graders Are Taking More Advanced Math Courses in Somerville Than Before

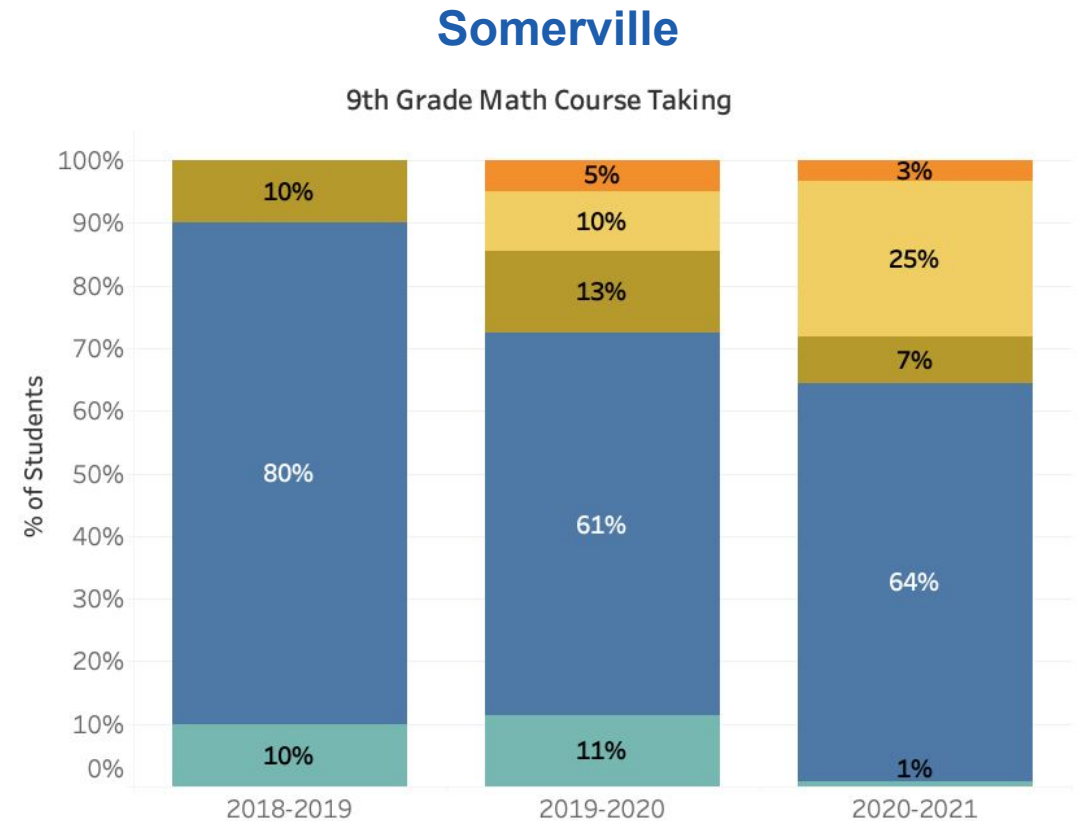
For example, in Somerville from Year 1 to Year 3 of STAR, there was a

25% increase

In the percentage of STAR students taking more advanced math courses in Somerville



| Course Description | |
|--------------------|--|
| ALGEBRA 2 HONORS | |
| GEOMETRY HONORS | |
| GEOMETRY | |
| ALGEBRA 1 | |
| Other | |



Panel Discussion

YPP:

- Quantitative data is of course key for assessing how students are progressing towards proficiency in STEM subjects, but what else do you think is important to elevate in explaining STAR's impact to potential new funders?



Panel Discussion

Biogen:

- Can you share a bit about your current strategy to attract other funders to STAR beyond Year 5?
- If I'm another company you're connecting with, why would I want to collaborate on "Biogen STAR"? What might STAR be beyond Year 5 to attract buy-in from other companies?

Audience Questions for Panelists

Conclusion

If you'd like to learn more about the Biogen Foundation STAR Initiative please contact me at:

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