



Interview

# STEM Access Blooms in Mississippi

The Global Teaching Project brings high-quality advanced STEM coursework to high-achieving students in rural and low-income schools, making it a crucial piece of the state's significant educational gains



DANTE A. CIAMPAGLIA  
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At a time when so much news about American education is dire, there has been at least one bright spot: Mississippi. In May, data was released that showed the state

"went from being ranked the second-worst state in 2013 for fourth-grade reading to 21st in 2022," [according to the Associated Press](#). The magnitude of those gains was amplified a month later, when the latest [National Assessment of Educational Progress \(NAEP\)](#) scores were released and showed, among 13-year-olds nationally, reading performance [dropped to its lowest level since 2004](#).

Suddenly, everyone is talking about a "[Mississippi Miracle](#)". But the story is bigger than improved reading scores. And any conversation about miraculous Magnolia State outcomes must include the [Global Teaching Project](#) (GTP).

To be clear, GTP isn't an elementary school literacy intervention. Others [have that covered](#). Rather, it's a first-of-its-kind program bringing rigorous, high-quality advanced coursework to high-achieving students in some of the nation's most rural, lowest-income schools. The program is specifically focused on Advanced Placement STEM courses—AP Computer Science Principles, AP Physics, AP Biology—and the structure they offer to students and educators. Just as importantly, GTP aims to equip students with the tools to succeed in the rapidly changing higher education and professional landscapes.

And it's delivering on its mission. The Global Teaching Project launched in 2017 with a summer program at the Mississippi State University, GTP's [higher-ed anchor partner](#), and AP classes in nine schools. Today, GTP is the largest provider of AP courses in Mississippi, encompassing some 76 classes in four AP courses (AP Statistics will be added for the 2023-24 school year) in 38 schools, serving nearly 1,000 students. High schoolers work with teaching assistants from institutions like Yale and the University of Virginia and are put in the (often virtual) room with distinguished guest lecturers. And they're given an academic structure otherwise missing, leaving them challenged, expanded, and equipped for the future in ways they otherwise would not have been.

GTP has also expanded its higher-ed footprint. Delta State University, Millsaps College, and Jackson State University have joined the Mississippi State University in hosting GTP programs. They prepare students for the courses to come, connect them with undergrads in STEM majors, and give them a taste of life after high school. Some 200 students recently completed the seventh annual Advanced STEM Preparatory Program at MSU.

"Every year we get more schools and students wanting to do this," GTP founder and CEO [Matthew J. Dolan](#) tells The Elective. "That growth is the most meaningful, emphatic measure of success because it has been entirely attributable to word of mouth. We don't run ads. We don't have any billboards. We don't have any TV endorsements. It is people hearing from peers, hearing from other parents, hearing from other educators, hearing from other students."

The Elective recently spoke with Dolan and Chief Strategy Advisor Kiran Ghia about the birth of the Global Teaching Project, the impact it has had on students, and how the program can expand in the years ahead.



*Matthew Dolan (left), Kiran Ghia (right)*

### **You're both based in Maryland—how often do you get to Mississippi?**

**Matthew Dolan:** A lot. Kiran and I live in the Washington, D.C., area, but we have two people who are full-time in the state: one is based in Oxford, where the University of Mississippi is, and then the other works out of his home and goes all over. So we have a permanent presence in the state. Kiran and I get there episodically. I get there a little less than I used to, but for most of this program I'd be there typically one week a month.

And that's actually an important point. We came at this—I often say we need to come up with a

### **I was going to ask about the program's origin story.**

**Dolan:** I hate to make this the first person, but the origin story was basically that I decided to do it. I was an attorney in Washington for many years and I had volunteered for many years trying to expand educational opportunity in cities. As our youngest of four children approached college, the demands at home were a little less pressing and there were a few things going on professionally where I was presented with a good break point. And I thought, "This is a good time to do something that has impact, something that I really can get passionate about."

We sent our kids to the best schools we could. We aren't inclined to apologize about that. But we're mindful not everybody has that opportunity. So what I wanted to do was something that expanded educational opportunity. I knew that just some guy from Washington couldn't hope to make an impact on education generally. One needed a niche. And that niche, based on our children's experience, tended to be potentially high-achieving students who didn't have the opportunity and access to the courses that permitted them to act on that. So I began to focus on AP classes, and AP STEM in particular, which is where the real demand is.

The unexpected wrinkle was I hadn't really looked at rural. But as I began to research the issue, it became evident that rural was where the greatest unmet need was. It was no secret that, when you run the data in terms of educational performance, attainment, and participation, Mississippi is almost always at the bottom. It also happens to be the third most rural state in terms of the percentage of students who attend school in a rural district. And it's important that you define it that way, as opposed to population over square miles.

**Kiran Ghia:** I think Matt is always a little too modest when he talks about this. Having come from, I think it's fair to say, a middle-class background but having attended city center schools in D.C., largely surrounded by a Black student population, I think it really affected his outlook and his vision for what he understood education was supposed to be. And so I don't want that point to go unnoticed—that he has a personal, shared background, and a lot of this that is unique, I think, for someone in his position.

I came to work with Matt at what was actually a transitional period in my career, as well. I had been practicing as a lawyer for a number of years. I come from a family of educators—my parents were both university professors—and so education has always been very close to us.

For my parents, it was a path out of poverty from India when they came here in the early 1960s. So I felt, especially after I had my first two children, it was a really important thing for me to pivot to education. Similar to Matt's experience, I was able to provide my children a level of education that I thought was appropriate for them and what they deserved. And it always struck me as unjust that children in India are suffering like this, and children in the U.S. are equally suffering.

I think both of us approach this work with a lot of sensitivity, given our own shared and lived experience with some of these communities.



Saxon Wilson/Saxon Cam Photo

*A student participating in the 2022 Summer Program at Mississippi State University in June 2022.*

**Matt, when you started going to Mississippi and approaching schools, what was the response?**

**Dolan:** The most fundamental point you make in presenting your question is *when I went there*. That was the most fundamental act. And I went back. And I went back again. I have had literally hundreds of school visits in the last six years. And the fact you are there is validating. The very well-intentioned entities involved in education, they don't go there. They just don't. And the fact I was there, because it is such a rarity, itself conferred considerable credibility.

I knew some people from Mississippi quite well from my time on Capitol Hill. So I called up a friend, who was a veteran of Mississippi politics, and I explained to him in somewhat amorphous fashion what I wanted to do. He put me in touch with somebody else, who put me in touch with an older gentleman, a 70-plus-year-old retired school superintendent. This person showed up at the Memphis, Mississippi, airport to pick me up and drive me around and accompany me for two days. As a retired superintendent, this person had a number of folks he helped mentor, who were themselves superintendents. So he brought me around and we physically went to meet the school superintendents.

I knew enough about the politics, having been involved in that world, that the first point to be addressed was, *We're not here to take your job. We're not here to compete with you. We are not here looking for you to pay us money. We want to help your students excel, to help you teach, and, to be honest, to help you look good in the process.*

Here's the thing though, and this is sort of a Mississippi attitude: that conversation lasted about 90 seconds. They understood it, they accepted it, that was the end of it. And then very quickly—it would typically be a superintendent and maybe one other person sitting there with them, and the superintendent would turn and say, "You know who would be really good for this program is Joey or Jamal or Susie or Shamira," whoever it happened to be. These are small communities, and the students in the schools in many cases have been there since they were toddlers. So they know their students. And at the end of the meeting, they wouldn't slide across that set of forms for me to sign. They'd say, "Okay," and that was the process. Then the next time I went, I wasn't accompanied by the school superintendent because people began to know me. And by the end of the first year, people knew who I was, or they talked to their cousin who knew who I was, and it became very viral.

**You mentioned jobs. Has the program coming to Mississippi created teacher jobs or career opportunities?**



**Dolan:** We have not increased the pool of prospective teachers who are able to physically go to the classroom. But we did do a number of things. We helped provide resources for the teachers already there to be effective. We also truly energized a lot of the teachers and helped boost their spirits just by letting them know we know they're there, we believe what they are doing is important, and that we're prepared to support them in various ways. And we had teachers who were not AP certified who have since become AP certified, often with our help.

We also brought in a lot of additional talent to provide instruction. That's not to say we put physical teachers in the classroom, but we had student tutors from Yale, UVA, Harvard, and Columbia—I think those are the top four. We brought very talented people from around the country to work with these students, mostly by video conference, but also episodically in person.

**Ghia:** The one thing I'll add is that over the last six or seven years, we've also helped create a pipeline of students who will be entering the STEM profession, and there's a hope that some of them will go on to teach.

Our program alum are also now starting to participate as teaching assistants. They do a lot more than just tutoring. They serve as peer mentors and college financial aid navigators and everything in between. So we're now seeing alumni, students who have graduated and taken physics or computer science, starting to come back. Over the last two years, we have started to hire a number of them as counselors or teaching assistants at our residential programs.

**Kiran, I'm curious about how you work with the College Board and AP, specifically, when you're putting this idea together. How does that relationship begin?**

**Ghia:** I think what you're getting at is, do you have to have any kind of special permission or whatnot from the College Board? It's almost the reverse. Schools have to first want to do AP. They have to want to know about AP. They have to know what AP is, which, frankly, is a hurdle for a number of our schools. And once they know about it and want to do it, it comes to, how do I implement it?

A lot of schools and administrators expressed this interest initially in AP Physics, and of course AP Computer Science has really taken off. Now AP Biology is something that we're offering in a number of our schools. Once they have an interest in it, then we get to the actual ins and outs of administering it through the College Board. And that is really walking the schools through the process of registering their schools. It's a whole 50-step process schools have to do.

The physical barriers to entry for a school in rural Mississippi to start AP, and I'm talking about things—if I'm going to be the AP coordinator at my school, just getting myself registered as an AP coordinator at my school takes a lot of effort. In my view, having done this with these schools for six years, there's too much required of them to go through the process. We spend a lot of time working with them, quite literally on the phone three-way dialing in to the College Board helpline in order to get them up and running. We spend quite a bit of time—at the beginning of the year and at the end of the year before the exams—getting them going.

**Dolan:** We obviously are strong proponents of AP. And we are, I think it's fair to say based on the data, the most compelling example in the nation of having AP classes embraced by serving and helping disadvantaged communities. All of our districts, by national standards, are low income, some among, by certain measures, the most impoverished places in America. And there is simply no other effort underway—the College Board's data affirms this—that is doing what we are doing in high-poverty rural communities, with a particular emphasis on predominantly Black areas.

There are 31 rural low-income school districts in Mississippi that also have 90% or more Black enrollment. We serve 11. We offer 26 AP Physics, Biology, and Computer Science classes in those 11 districts. In the other 20 districts combined, they have one class. One.

We like AP. We think AP classes are a very effective tool for promoting rigor, for ensuring accountability. We also think it's a great opportunity for these kids, frankly, to show they're smart. The fact is, if you are applying to a selective school, and you have a really good GPA from a school in rural Mississippi, it's likely to be discounted. But a strong AP score is a great validator. Moreover, in these schools, the AP curriculum provides structure and purpose.

Now, there are problems with APs; we acknowledge that. In our case, they are not the greatest metric of progress because they don't measure where you started. But put that aside. No one's going to argue that it's a perfect indicator of progress—but it is a very useful educational tool. And we are applying it in communities nobody else is. And we are applying it in communities the College Board is accused of ignoring.





Saxon Wilson/Saxon Cam Photo

*Two students work on a project with a student teaching assistant (center) during the Global Teaching Project's 2022 Summer Program at Mississippi State University in June 2022.*

**What have the results been for the students in terms of academic achievement? How do they perform in these AP classes? And how many of them go on to higher education, be it four-year institutions, community colleges, whatever it might be?**

**Dolan:** Virtually all our students go to college. The fact is, most of them probably would go. But without our program—these are good students from very, very poor communities. Even in very poor communities, students tend to go to college. In Mississippi, community college is a particularly popular option; I'd say roughly half our kids go to community college. Interestingly, I'd say well over 90% go to college in Mississippi as opposed to, you know, around where Kiran and I live.

So almost all of them go to college. But much more significant are the longitudinal outcomes—which are really the true metric of our success—that after our sixth year are beginning to become evident. Now, the problem is, it's a little difficult to quantify as opposed to AP scores. What we seek to do is to change students' trajectory. And there are lots of reasons to believe that we do that for students who put in effort, which is most of them.

There are lots of anecdotal examples, but, as the cliché goes, the plural of anecdote is data. We have both, in terms of where students go to school, what they choose for their major, their persistence in the major, the success they have academically in college, the grades they earn, the awards and scholarships they are given. We have one student from Holmes County, Mississippi, which according to recent census data—with the exception of a single, much less populous county in another state that sort of skews the data—has the lowest median income in the United States. This student went to school there when covid shut the school down. But she got to Jackson State, she entered the summer program that preps students for school, and what Jackson State found is she knew this stuff already. So that leads to a series of positive outcomes, and she was identified as a high achiever and Jackson State pushed her to apply for this National Science Foundation award—and she got it. The award will pay her a monthly stipend through graduate school, so she has a much more solid financial footing going forward in college.

Now, is every student a success story? No. And we don't pretend that's the case. But certainly, the longitudinal outcomes are better than they would have been. Before we work with these students, it's quite typical for them to have a 4.0 coming into our program and never have really been taught anything because they've never really been exposed to academic rigor. Because they're good students, they're left alone by schools that say, "Oh, they'll be fine."

We do have some quantifiable data showing what we have done. Frankly, AP scores tend to be the least flattering, for lots of reasons. As I say, if they don't take into account where students started. We also had a vague understanding of this at the outset, but I did not actually see the numbers until later: AP Physics 1 has the lowest average score of all AP-tested subjects. This was true in 2022; it was true for literally every year I've checked going back to before we started. Two-thirds of students in Mississippi score a 1. But we tell our students, and I'm quite sincere in this, less than 0.3% of Mississippi public high school students take the AP Physics 1 exam. So just by taking it, they're in an elite group.

**College Board has data and research on the value of earning a 2 on an AP exam. It doesn't get you credit, but it shows schools that you're comfortable with that rigor.**

**Dolan:** I'm absolutely convinced, if you put in an effort, you will benefit. And how to measure that benefit, when and how that benefit will be evident, that's a little bit more complicated. But I can say with absolute certainty you will benefit. And they have benefited.

The most emphatic, unequivocal endorsement of what we do is the fact that every year we get more schools and students wanting to do this. We don't run ads. We don't have any billboards. We don't have any TV endorsements. It is people hearing from peers, hearing from other parents, hearing from other educators, hearing from other students.



Saxon Wilson/Saxon Cam Photo

*Students work together on a project during the Global Teaching Project's 2023 Summer Program at Mississippi State University in June 2023.*

**On the GTP website are mentions of plans for a pilot program in Central Appalachia. What's the status of that?**

**Dolan:** We've been working on that for more than a year. We had a call a couple of weeks ago with the president of a university based in that area, where we are looking basically to have the type of relationship we have with, for example, Mississippi State where we bring students in for the summer. The president of the university was quite enthused about it. We've been in contact with school districts there. We've been in contact with this university we hope will anchor our effort.

Depending on where you define the high poverty threshold, if you look at a map of the counties in the United States that have more than 30% poverty, certainly more than 35%, they tend to be clustered through an arc in the rural South, particularly the Delta, where we already are, then Central Appalachia, basically southwestern Virginia, southern West Virginia, eastern Kentucky. And then actually, the third, which is not yet something we're working on, would be the Rio Grande Valley.

**You're obviously approaching a very specific problem in a very specific way with very specific kinds of solutions. But do you see your approach as something that's replicable by someone else, like, let's say, in the Rio Grande Valley? Can other people pick up this ball and run with it too?**

**Dolan:** Can what we're doing scale? Yes, absolutely. It's meant to be scaled. Some elements are more readily scalable than others. For example, the university-based programs have physical capacity limits, but the basic notion, yes, is that it absolutely could be scaled.

Could someone else do it? I acknowledge some bias here. Over the last seven years we've been working on this, we've learned a lot and there is a body of knowledge that others could develop. Could others learn what this effort would involve? Absolutely. But it would take a process. It takes time, and the web of relationships is extremely important, particularly in these types of communities. And there is a level of trust that must be established.

**Ghia:** This is a complex, messy problem that we're trying to address. It doesn't exactly lend itself to a very neat, one-off solution. In trying to solve a very complex problem, you have to have a solution that has a lot of tentacles to try and wrap yourself in it.