

**Ben Ostermeier (BO):** Okay, hi everyone. This is July 10, 2018. I'm talking with Maisha Moses today. We're going to be talking about her history with the various initiatives of the Algebra Project and YPP and the National Alliance. So how are you today, Maisha?

**Maisha Moses (MM):** I'm fine, thank you! How are you Ben?

**BO:** I'm good. So, tell me about the start of the Algebra Project. You were in 8th grade at the time. What was it like having your dad tutor math in your school?

**MM:** So, my dad sort of showed up one day in my class, and became my math teacher. He worked with me and three other students. And it was quite a surprise, I don't remember being prepared in any way for him to come and do that. And, I think it wasn't anything that happened that was particularly eventful, as I look back on it and think about what was going on for me at the time. I was, I want to say 12 years old. And, so I do just remember sort of being a little bit uncomfortable about the fact that he was in my classroom. And, it caused a little bit of, no overt tensions between me and some of my other classmates, but I remember a number of classmates who were not chosen to be part of the Algebra group that he was running. Asking or saying that "it wasn't fair," "Why do they get to do it," "is this just about Maisha," "how come I can't do it," that sort of thing. And so that just, it made me feel a little bit awkward about the whole thing. But other than that, you know, it was just, a small group of us working together on math in class every day.

**BO:** Yeah, do you know why you and the other three students in particular were chosen?

**MM:** So, the math groups were broken up into ability levels, and they had been pretty static for, I don't know, years. That was my 8th grade year, so, you know, probably since the 4th or 5th grade, you know you had the high level groups, and the medium level groups, and the lower level groups. Those were pretty static, more or less the same students ended up in the same groups. And so the Algebra Project got off the ground because my dad was working with me in the class, and then in following years he came and worked with my brothers, my younger brothers. And he basically noticed that the ability groups largely fell along race and class lines. And so he and some parents got together and started to organize around that. And basically the parents to agree that, through a letter that was sent home, that they – every parent wanted their child to be able to take algebra, and so on that basis they got rid of the ability group and had a flat system where students worked over two years to sort of accommodate different paces that students had, and they started in 7th grade taking algebra and working over two years and doing much more small-group instruction and individually-focused instruction so that students who needed more time to work through a concept, they had plenty of time. And then students who were sort of, more achievement-

oriented and wanted to really push through and, you know, go as far as they could possibly get, also had the space to do that and the support to do that.

**BO:** Okay. And so the Algebra Project basically grew out of that, of course. And you started working with it, as far as I understand it, in your sophomore year of college, correct?

**MM:** Right, so, you're absolutely right, the Algebra Project grew out of that experience, and what is now known as the Algebra Project was developed in sort of the five or six years after I graduated from 8th grade, because the 6th grade teachers who were previously preparing most of the students for more basic math in pre-algebra were now faced with the challenge of in the 6th grade preparing students to algebra beginning in the 7th grade. And, so my dad worked with one teacher in particular. Her name was Lynne Godfrey. And she had actually been my 5th and 6th grade teacher and she taught all of my brothers and sisters as we came through the school. But anyway she opened up her class, and partnered with my dad to develop materials that were designed to sort of level the playing field, so that no matter what experiences students had had up to then, this, what was called the transition curriculum, to prepare them for algebra, was designed so that, all students could fully participate and use it as a launching point to develop fundamental concepts that would really help them in algebra. And part of what my dad was noticing as he was, you know, teaching students in 7th and 8th grade and just sort of with traditional algebra I textbooks, was that there were a number of really common conceptual stumbling blocks that students had, and that they really didn't have the conceptual tools to navigate some of the new concepts that were being laid down in algebra, like, you know, concepts around integers and signed numbers, and that part of the problem was that the metaphors for numbers, what numbers do, and what they describe, what they characterize, and the metaphors for addition and subtraction of numbers, that works so well for arithmetic, broke down when you got to algebra. And so this new curriculum that he developed with Lynne was designed to give students experiences to develop new metaphors. So the idea that an integer is a kind of a number that's also carrying information about direction, like positive or negative, or to the left or to the right, or movement. And numbers in arithmetic don't talk about direction, but numbers in algebra do. And, so, but absent that metaphor, you know, the traditional approach was to teach rules that, for how you, you know, add and subtract and combine these positive and negative numbers. But those rules had no meaning for students. And, really most students, most people, to feel confident in math, need to have some meaning on which to hang the concepts for which they can, so they can make sense of the concept. And so that's really what he spent five years figuring out in Lynne's classroom and, in the first year even, working with some students before school and testing out different pieces of material and activities to see what worked, and then iterating and evolving and improving it over time. And so when the Algebra Project had sort of matured through its first phase, and started going around the country, like in the late 80s, early 90s, what, by then it had

become a project focused on working with middle school teachers to help them learn this transition curriculum and this new approach to preparing students for algebra.

**BO:** Right, and that's roughly when you started working with it, correct?

**MM:** Yeah, so I started working with it in my sophomore year in high school, in college. So that was like 1989, and my dad had invited me to work in Lynne's classroom, and basically provide classroom support. And so I did that for, pretty much the rest of my college years. Sophomore year through senior year, and then I also started working with students after school and running small tutorials for 8th graders who had come through the Algebra Project and who were preparing to take the city-wide Algebra I exam. So I was doing some programs with them, and then I also started, by then the Algebra Project had, I think a summer camp in Boston. And I started working with that in the summers as well.

**BO:** Okay so, and this was until you graduated from Harvard in 1991 as I understand it.

**MM:** Yeah, yup that was before, from like '89 to '91, through '91.

**BO:** Yeah and at that point you moved to Oakland to work on the Algebra Project there.

**MM:** I did, so I decided that I wanted to work on the Algebra Project, and there was an opportunity to work with the school in Oakland called King Estates Junior High School, and they had a grant, I think it was a three or four year grant to implement the Algebra Project. And the teachers were really committed to it, but they felt like they needed more support. They had a really challenging school environment, sort of school situation, doing the Algebra Project required them to use a lot more cooperative learning strategies, sort of more constructivist-oriented strategies. And they were all really strong math teachers, but they were also very traditional math teachers, and so, I think they had said that, while they thought the Algebra Project really had a lot of promise and value, that they wouldn't be able to continue doing it unless they had more help. So, the timing coincided well, because that was right when I was graduating from college. And so that was my first job, to go and work with them in the classroom, and you know, of course, the three years that I spent with Lynne, turned out to be really excellent training for that, because I was really familiar with the curriculum. I was really familiar with, sort of the, ins and outs of how it works with students and, how students experience it. And so, I was able to support on the one hand, and I think provide some coaching on the other hand, and guidance for the teachers as they worked to, like develop expertise in using the curriculum. And they were really committed to the goals of the Algebra Project, which were to ensure that students completed Algebra, you know by the time they left middle school or junior high school. And when I first started working in King Estates they had, you know, maybe one class of Algebra I for their 9th graders. It was a junior high school so it went 7th through 9. And five years later when I

left, all the 9th graders were doing algebra, and they just kept chipping away at it, chipping away at it, until they had, you know, changed the curriculum, and institutionalized it in the school.

**BO:** And is it still institutionalized there?

**MM:** You know, I haven't really kept up with King Estates. So, I don't know, but – so actually one of the challenges we ran into, and this was part of, I guess the other part of the Algebra Project that was really important, was that it wasn't just about changing classroom instruction, but it was also about community organizing. And, so, the district –when the Algebra Project first started at King Estates, there wasn't a common curriculum or, you know, common math program for the district, and so different schools sort of had the freedom to choose what they want, but the district leadership felt like that was a weakness for the district, and so, over that same time that we were really developing the Algebra Project at King Estates, the district was moving to having, like a standard curriculum for the district, and it ended up being that, it didn't end up incorporating the Algebra Project into that standardization process. And so that was a challenge for us on the community organized side. And so then the teachers found it really hard to be so out of sync with what the rest of the district was doing. So that was, that ended up being the main barrier. Once we got established at the school, that became the main barrier to sustaining it there at that school.

**BO:** Yeah, that makes sense. So while you were, as far as I understand it, while you were in Oakland, your brother and others founded YPP, Young People's Project, in 1996. And shortly thereafter I believe you started getting involved in YPP, and what led to that decision?

**MM:** So I had, through my years in Oakland, I had also been doing the trainer training with the Algebra Project.

**BO:** Okay

**MM:** And I had, I started working with a national leadership, or coordination team around training teachers for the Algebra Project around the country, and then ended up becoming a co-coordinator for that program. And so over the years, the teachers at King Estates became, you know, more confident and more masterful, I didn't have to be there as much, and so I was sort of splitting my time between King Estates and then doing this national work. And so I was spending a significant amount of time traveling around the country, and just, you know, working with teachers in various school districts and large, northern districts, smaller, southern, rural districts. I really had a great, that experience gave me a great window into education across the country that I probably wouldn't otherwise have had. But part of what I learned through that experience was that, I think fundamentally in a number of ways the teachers, and teachers as a professional group, were as disempowered as I felt the students were in

the system. And so it just started to feel, in some ways, like an uphill battle to try to make systemic change in school districts and systems through just working with teachers. And I had come into the work, you know I was in my early 20s when I moved to Oakland, and I had really rose-colored glasses on, because I really believed in the Algebra Project and methodology, and I was like "oh, you know, we're just gonna do this project and we're gonna solve the problem." And I just learned how hard it is, you know, it's just really, really hard to make change in schools, and it's just really complex, and I felt sometimes like you're standing in front of this wall with all these holes in it. And you're like plugging, plug one hole and another hole opens up. And also, I guess I started to feel like, well yeah, I guess just what I said, I realized how much energy it required to try to make change by working with teachers. For me the classic storyline was, many teachers would say, "You know we know what we're doing doesn't work, and, but, you know, I don't know that I, and I'm willing to try, and looks the Algebra Project, it looks like this really works. But I don't know if I'm willing to go out on a limb and fully do it, and fully embrace. Because if I do and it fails, I'm out here by myself. You know. I don't know who's going to have my back." And so, just bringing together all the pieces of community support, teacher PD, district-level institutional support was such a complex task, particularly as the country was moving toward, you know, more standardized test-focused and this accountability movement. It just became really, really hard. It wasn't an environment that was conducive for teachers to have their freedom to really like, try and fail and figure out how to make the Algebra Project work. And so in some ways my experience, you know, I'm just talking about my personal experience, I think other people who work with teachers, they have different stories. But, in the Algebra Project, but you know the teachers at King Estates, that was sort of, so that was like '91 to '97. So that was before No Child Left Behind. They really had freedom to figure it out, you know, and they had freedom to take ownership over changing and transforming their math program at that school. But that was unusual to see that as I moved around the country. You know it was more typical where you'd have like one, sort of staunch teacher like, "I'm gonna do this no matter what." But not the space where you really have the whole school and the whole math department working together, and feeling that it's safe to do that. So, I was starting to get tired, and I think starting to get a little bit burned out, and so when the Young People's Project started in, my dad had, my brother Omo, you know, as you know started it, and he had talked to me really briefly about it when, you know it was just getting off the ground. But, you know, I wasn't, he sort of talked to me about it in kind of a vague way. But then my brother, my father at the same time he had been asking me to come to Mississippi to come and work with him in Mississippi and support the work there in Mississippi, and I had sort of been resisting. And so after a couple of years when I realized that my time in Oakland was complete, and there wasn't, starting to have, as I said, a bit of a feeling of burn out in terms of my work with teachers and teacher training and supporting teachers. So all that happened around the same time, and I ended up in Mississippi, in my dad's class, and working with students during the day,

but then after school, working with YPP and, YPP was, these were Algebra Project students who, you know, were in the Algebra Project, in school during the day. And then they would meet after school to sort of extend and continue the work of the Algebra Project and to do math with each other, to hold math workshops for teachers. They were learning the graphing calculators, they were learning to master pieces of the Algebra Project curriculum, and make games out of it, attracting kids from across the city to come and work with them after school. And it just had a whole different kind of energy and vibrancy to it that I think helped to rejuvenate me and my connection to the work, and I found that I had something to bring because all of my experience over the years doing training and professional development was useful to the Young People's Project as it grew, and tried to figure out how to more systematically develop high school students to become what we call Math Literacy Workers, where they're learning bits and pieces of math and designing workshops and experiences and activities for their peers. So that's how I ended up with YPP.

**BO:** Oh, well, yeah. I totally get what you mean about, speaking as a son of a teacher, not to impose too many of my own experiences, but speaking as a son of a former teacher, I know, in a vague sense what the challenges that teachers face in dealing with all sorts of institutional problems in education, so I totally get what you mean.

**MM:** Yeah, yeah.

**BO:** You talked a bit about how YPP is distinct from the Algebra Project. I guess what I'm curious about is, just how the result of the work, perhaps, differs between the two organizations. Because I know that obviously Algebra Project is primarily about working with teachers, and, as far as I understand it anyways, and YPP is with the young Math Literacy Workers, so talk a bit about that if you can.

**MM:** Yeah so I think part of the premise underlying YPP and, part of why the Algebra Project invested, and the Algebra Project network really, through the 90s, invested various levels of resources and support, you know like time, people talk about time, talent, and treasure. So YPP received a great deal of intellectual capital and nurturing I think from the Algebra Project in particular, and the Algebra Project network in general, to create space for it to establish itself as, pretty uniquely, as a young, black-led, non-profit organization. And when I say young I mean, like really young. YPP was started by 8th graders, they were 8th graders at the time. And my brothers and cousins, cousins we grew up with who were in the Algebra Project too in middle school in Cambridge. They were a handful of young black men in their early 20s, and so they really launched YPP. And so it's very unique in that way. And the Algebra Project really created the space for it to figure out for them, to figure out how to grow YPP as an organization, and establish it as an organization. And partly it did that because, I think my dad used to talk a lot about how one the main learnings in the Civil Rights Movements was that, fundamental change around deep, systemic issues require that the people who are

closest to the issue or closest to the problem or most directly affected be involved in changing it and making a demand for change. And so in the Civil Rights Movement in Mississippi it was organizing sharecroppers to vote, to register to vote. And so the equivalent to that in the 80s, late 80s, 90s, you know, throughout these recent decades has been organizing young people to demand their right to quality education, and figuring out how to engage young people in what can be productive and sustained struggle around making a demand for their right to quality education, and so YPP is one model, or one example of that, where students are one: having to make a demand on themselves and each other to master the subject which, the majority of the population finds difficult, and for which, you know, the schools that they largely attend are ill-equipped to serve them well so they can learn the subject. So hold them to make a demand on themselves to become a part of the solution, and so I think that's the phase where we are with this work. And then, I think one of the longer-term visions from the very inception, over 20 years ago now, has been, you know, how then do these young people, having done that, make a demand on the broader systems on the country, on their cities, right, to really invest differently in education for all children, and particularly children who are currently on the bottom. So that was the thinking behind the development of YPP and, you know, to do that you needed to create, sort of in the spirit of Ella Baker who created a space for young people to form SNCC and to own SNCC, the Student Non-Violent Coordinating Committee, who because they had their own space that they owned and were responsible for, really brought their own unique energy to the tapestry of organizations that were working on Civil Rights, and so they, that was the idea again behind the Young People's Project, was to create space for young people to be able to do that. It's a longer, it's a much longer endeavor. You know I think the heyday of SNCC spanned, probably like a roughly a ten year period. And YPP, we're already over 20-years-old, and it feels like, you know, we're just scratching the surface. It's taken a lot, it's taken all of our adult years, you know, to figure out how to develop a sustainable organization to keep this work going and growing, it's just a longer proposition.

**BO:** Right. So in May 2013 you became the Executive Director of YPP and, so what are your responsibilities for YPP today?

**MM:** So I'm mainly responsible for leading the organization, keeping the lights on, leading. We have a leadership team of seven, mostly full-time, some part-time, staff members who have been with YPP for a long time. And who are really thinking about, I think how to position and sustain the organization as we shift from our historical model and way of operating, which was, you know we had a number of sites that we were primarily responsible for and we would hire fairly large numbers of high school students that worked for us to do the math literacy work in their communities after school. Over the years as we struggled with figuring out, like how to grow that model, we ended up pivoting to this idea of, really more so trying to spread the model through partnerships, really highlighting what we've learned over the years. We've learned a lot

about how to engage high school students in particular, but also high school and college students as near-peer STEM literacy workers who are also coming from, or coming at it from this, sort of social justice lens and orientation. And so partnering with institutions who see value in fusing that into their model, or into their institution, and so we're starting to emerge some really exciting partnerships, which I think have potential for enabling us to really grow and spread YPP in unique ways, so like, I'm actually down here in Broward County, Florida. We've been doing a training here this summer, in partnership with the Algebra Project. The Algebra Project is training teachers at two high schools, and we're training cohorts of high school students at those same high schools to be Math Literacy Workers. And, the teachers and the high school students are working together to run a summer induction for rising 9th graders who will be part of the Algebra Project at the school. And then during the year the high school students will continue, you know, to work with their younger peers in different ways at each school. So that's really exciting, and it's the kind of model that I think, you know, has the potential to have a much broader and deeper impact than us trying to replicate a ton of YPP programs that we're trying to operate and run all of the county. And so we're focusing more on training and building capacity with our partners and partner institutions to do and sustain and invest in math literacy work. As I said within their own institution and culture. So that's one thing we're working on, and then the other thing that we're working is building the National Flagway League. And, so we've been playing the Flagway game for about as long as we've been alive, from the very beginning of YPP's inception. And we just, we've tinkering with it over the years, and developing, actually it's been a 20 year R&D process to develop the current module that we now have. And the Flagway game is a really cool game that my dad developed. And he, it's based on a mathematical function called the Möbius function, and he actually thought about that function for two years, and then, I think he told me that he was on a plane ride one day, and it sort of hit him that he could develop a physical model of the function, and which he did, and then over the years YPP has just developed a lot of games tied to the physicalization of this, of the Möbius function, this mathematical function. And as we played with different, sort of pedagogical strategies and approaches to teaching the game, so it's less about rote memorization and more about building a much deeper understanding of sort of the structure of the natural numbers, as well as building multiplicative fluency. And in doing so, the main tool that they use in doing so, is learning about prime numbers and how prime numbers are the building blocks of the natural numbers using multiplication, but then also when you look at the characteristics of the prime factorizations of different numbers, there are all sorts of patterns and groupings and categorizations that you can make with the natural numbers, which can lead to really rich exploration that takes, you know, upper elementary and middle school students much deeper in arithmetic than they ordinarily go. But so, we've taken, you know, all that work over all these years, and we're piloting and developing our National Flagway League, 'cause we think that we can develop the game into a math sport where you have leagues of local teams who meet together



nationally at a national competition. So you have local leagues and, they have local competitions, and then the winners of those leagues come to the national competition. And we've had two such national competitions so far that have been very successful, still modest in scale, like five to eight teams have come together from around the country. But we've gotten a great response, and it's something that we want to continue building on, and for students, particularly students who we work with, who are coming from schools and communities where, you know, a lot of, most of the students are working in the bottom quartile, performing in the bottom quartile in mathematics, they don't really have many opportunities for this kind of high-quality intellectual activity that's organized in the way sports are organized. There's a lot of energy in these communities that goes into the traditional sports, but having access to more academically-focused sports or the sporting culture applied to academics, there's not a lot of opportunities for that. So, people are really interested in it.

**BO:** Yeah, I mean, yeah it certainly seems like a very fruitful thing, development. So what have you found most rewarding in working with YPP and the Algebra Project?

**MM:** Well it's great work. For me it sort of hits my sweet spot. I like working with kids, I love math. I actually went back in 2004 to Southern Illinois University in Carbondale and spent a few years getting a masters in math. And I love teaching and working with people, but I also like freedom, so, you know, all of this being in Algebra Project and YPP has afforded me a lot of freedom. I haven't really had to deal with any of the institutional constraints that, you know, teachers in traditional systems have had to deal with. So, you know in that way it's been a great experience for, and also when I decided that I wanted to work with the Algebra Project, a big part of my motivation was that, having grown up as the child of parents, both of whom were involved in the Civil Rights Movement, probably by the time I went to high school, I had the sense that I wanted my life to be, to have something to do with giving back to my community, and helping to sort of further the work for freedom and equity and injustice for black people in America. And the Algebra Project, and the Young People's Project, both have deep missions that align with that interest of mine. And so in that sense it's been really meaningful work, and a privilege to have been able to spend my whole professional life working with it.

**BO:** Yeah, and the next question I have prepared was, what was your greatest, what has been your greatest challenge in working with YPP and the Algebra Project, and earlier you had talked about the challenge of dealing with traditional institutions in, you know, school districts and teaching in the education system, so I don't know if that's necessarily your greatest challenge, but if not, feel free to talk about something else, or feel free to talk about that some more.

**MM:** Yeah, so, I mean interestingly enough I feel like I've come full circle with schools. Because, whereas almost 20 years ago now, my move to work with YPP was a way of,

sort of, bypassing some of the institutional constraints that I felt like were hampering my particular work with the Algebra Project, YPP has now come back around and has matured to the point where we're now able to partner with schools, and so, for instance the work that we're I described that we're doing here in Broward County, that's an example of that. And there's another example that stands out with a school in Boston called Excel High School, and we are teaching a 9th grade elective course, so we're partnering with the school. We're responsible for teaching this course in partnership with a teacher of record. And as part of the course, the 9th graders are learning math and coding, and then they're also designing, what we call pop up coding bootcamps, where they're providing a, sort of intensive coding experience for middle school students around the district, and this is actually, I think, really strengthening our work and is enabling us to grow and spread our work in ways that we otherwise would not be able to if we continue to sort of operate in more so in isolation from schools. So for many years we did our work after school, where we didn't have a whole lot of integration with teachers and what was going in school, but I think this kind of, where we can find schools and districts that are really open to this type of partnership and collaboration and they're interested in trying something new, I think we have lot to bring to the table, and it's mutually strengthening for us and the school. So, I think for me, a key obstacle has been, just sort of, I don't want to, it's not so much an obstacle as it's just a constant challenge, as a non-profit just figuring out how to sustain the work financially. And ensuring that we have the resources that we need to be able to really thrive as an organization, as we do the work. I think that's probably the main challenge, and we've certainly had some, plenty of ups and downs and rocky times that have affected the stability of our, of the organization, and so of course, you know also affects how we're able, the quality of the work that we're able to produce.

**BO:** Yeah, sure. And then the last question is, how do you see the National Alliance and its member organization challenging educational inequity and living up to the promise of "We the People?"

**MM:** I just think the alliance has to grow into that. I think given the initial premise of the alliance, that it is, that it start as a bottom-up endeavor and try to continue to grow as a grassroots and bottom-up endeavor. I really think the alliance has to grow into that promise of itself, of figuring out how to challenge the country around raising the floor for education for all children, and this idea of citizenship being substantive and being codified in the constitution, and that we can call on the "We the People" clause in the preamble to the constitution as a lever for power to put a demand on the county. I mean that's like a huge, huge idea, and so I think the alliance has to grow into it. I think the first thing is, as I said, given the premise of really being a bottom-up alliance has to continue to develop local alliances that really start to feel like they have a handle on how their working the problem, and then figure out how these local alliances are talking to each other and working together, and then figure out how the local alliances can sort of cohere around a more nationally-focused agenda or initiative or strategy or

operation, so that's a lot of ifs. I've just learned, you know, like I said, I think 2021, so three years from now, YPP will be 25-years-old, and I have been with YPP for its, I came in at the, sort of near the end of the first year of YPP. So all of the years except for the first year, I've been with YPP. It takes a lot to pull together, you know a national organization or institution or alliance. It takes a lot, it takes a while for that body to mature, you know, and figure out, know enough about itself to know what it's really good. And so, I feel like YPP, you know, you asked about where we've gotten to now, and my role in the organization I feel like, more and more have a sense of what YPP is really good at. Not just the current, sort of configuration of the organization, but sort of deep into the structure of YPP, our history and, you know, into our future where we're going. But it takes time for to develop that awareness and understand who and what you really as an organization. And so I just think "We the People," the alliance, it needs that time to figure out who it is and understand itself, and what it can do, what it's really strong at, what it's really good at.

**BO:** Right, okay well that's all that I had prepared for today, was there anything else that you wanted to talk about?

**MM:** I don't think so!

**MM:** Okay, well sounds good. Alright well thank you so much Maisha for talking to me today.

**BO:** Thank you, you're so welcome, I hope it's been helpful.

**BO:** Oh yeah this has been very, very interesting, and I've enjoyed talking to you.