

**PRESENTER:** So without further ado, I'd like to go ahead and introduce today's guest presenter. Nathan Levenson is Managing Director of the District Management Council, a firm committed to helping public school districts raise student achievement, improve operational efficiencies, and reduce costs all at the same time. Prior to joining the District Management Council, Mr. Levenson was Superintendent of the Arlington Public Schools Massachusetts. He began his career in the private sector and was twice elected to his local school board. Mr. Levenson has written widely on the topic of doing more with less and he has received a B.A. from Dartmouth College, an M.B.A. with distinction from Harvard Business School, and is a graduate of the Broad -- excuse me, Foundation Urban Superintendents Academy. So please join me in welcoming Nathan Levenson.

**NATE LEVENSON:** Great, thank you very much. Can people hear me? Is the volume good? Great, it's my pleasure to be here this afternoon and I am excited to see a full crowd this afternoon. My wife was very worried. She thought I'd be speaking to an empty room today. She said, don't you know better than to talk about special education and money in the same breath? Nobody's going to want to come hear what you have to say. Well, I'm glad you proved her wrong so far and we'll see what you think at the end of the session.

I'd love to just get a sense of -- from the audience as to who you are. You've learned just a little bit about me. Just by a show of hands, how many of you are special education teachers? General education teachers? Not too many. Parents? Any parents in the room? Great. Central office staff? Lots. Any superintendents in the room? Okay, a few brave souls.

Just a little bit more about me so you can put today's conversation in context. About 15 years ago, I was sitting in a school board meeting as a school board member and two things struck me. I'm not sure why. I mean, these kind of things happened at probably every meeting. But the two things that struck me was that the students in my district, particularly the students with special needs, just did not seem to be doing all that well in our district. And certainly if they were my son or daughter, I would have wanted and did want more and better for them. And at the same moment, as I was realizing that we had not really not fulfilled our commitment to students with special needs, the school committee half of my brain also realized that our lack of success had nothing to do with our lack of effort. It had been a front burner issue as we had spared virtually no expense. And yet we still did not get the results we wanted.

That launched what's been about a 15-year journey for me to be thinking about and studying and working at lots of different levels on that question of how do we help kids with special needs achieve at higher levels? In recent years, it's been more urgent to think about how do you do that, that really important and imperative work, in the constraints of declining budgets. So what I'll be sharing with you today is really what I've learned over about 15 years of traveling the country. I've probably worked with more than 50 districts. I've read, I think, almost everything that's written on the subject that I could find and tried to write a few things on

it as well.

Lastly, as what I share with you today, I hope many of you like it. I suspect not everybody will. That's okay. And rest assured I'm going to try to leave plenty of time at the end of my talk to take your questions. I think it's a conversation worth having and I'd really like to make this a dialogue rather than just a lecture.

So with that, we're going to start with two things that I think are true, that we all want to help students with special needs achieve at higher levels. If that wasn't the case, I don't think you'd be here today. I know there are some very -- other good sessions going on. And secondly, that budgets are tight and getting tighter. That's kind of our reality.

Two lies. I hope they're lies. That more spending is needed if students with special needs are going to achieve at higher levels. I'll put it out there. More money is definitely better than less money. I was a superintendent. I know that. But I also believe it's not true that any decrease in spending has to be harmful to students with special needs. I think these are lies and I hope they're lies because if they're true, there's not a lot of hope for a group of kids that we really care very deeply about.

Some good news. Lot of numbers, I'll cut to the chase. We have done a lot of research. This is from a study that's going to be published this spring or summer. And we've noticed and found that there are many districts, not zillions, but many that have really cut the link between spending and student outcomes. In this study across five states, we looked at schools that were virtually identical in every way. They were serving the exact same types of students, the same demographics, the same challenges. They were in the same states, which meant they had the same regulations. They had a lot in common, even roughly the same size, the same identification rates for students with disabilities. The two things they did not have in common was spending and outcomes. We found schools that spent almost 20% less per student and were achieving almost 20% more students proficient or above. And if there's just one takeaway from this is to know that at least some places have found ways of helping students with disabilities achieve at higher levels despite less spending.

I think we also want to kind of put it out there, and again, I'm hoping everybody in this room already knows this, but it is possible to close the achievement gap. The gap between students with special needs and their general education peers as a country is enormous. Despite the progress of general education over the last 20 or 30 years, the gap between special education and general education students has not closed much, if at all. But there -- again, there are examples where it has changed. Quite selfishly, I use the example of the district from where I was superintendent where we had launched a top-to-bottom review of how we serve and educate students with special needs. And at the end of the day, we saw a dramatic closing of the achievement gap in both math and English. These changes have been sustained, they have been studied, so some good

things really can happen.

The nice news is if we can close the achievement gap, while we were doing this work in Arlington, the amount of spending was declining. We spent much less at the end of the day to get these much higher results than we did before. The other piece that should be both happy for the parents and definitely happy for the administrators, during this time of declining spending and raising outcomes, parents were actually pretty pleased. We saw a dramatic decline in complaints to the Department of Education. We saw lots of independent studies, greater satisfaction from our parent community. Because at the end of the day, parents, just like the rest of us, want their children to learn at high levels. And if you do that, there will in fact be happiness.

So the -- you know, the question is how is this possible? How did we and other districts bring this about? That's the question I'm going to answer today. The question that I'd like each of you to answer at the end of the day is, do you actually believe this is possible? And that's not a rhetorical or even a theoretical question. It's been my experience, having worked, as I said, with more than 50 districts over the last four or five years, that if you approach this challenge as thinking either, A, the achievement gap really can't be closed or can't be closed without substantially more funds, you will not get there. So what you believe matters as what you do.

So what we've done at the District Management Council, having studied what's worked elsewhere, and yes, we are consultants, so we love our frameworks, we have a 10-step process. And at the end, I will show you a link to an article that really walks you through the 10-step process in even more detail than I can do today. But one of the -- before we get to the 10-step process, there are just a couple things you have to do first. And the first is to change the discussion. So often the discussion goes something like this. Hey, we need more money. And what the superintendent of the school board is thinking, I don't want to have this discussion. Doesn't go very far. The flip-side, when the test scores come out at the end of the year and it's time to really think about what we can do differently next year, people just come back to, hey, we need more money.

Conversely, school boards tend to look at special education, and I'll admit, I was one of them for 6 years, it's like, oh, we have to spend less money. And the people, all of you who work with these students every day, are hearing, that's going to be bad for kids and I'm not going to let you do that. And you shouldn't let school boards or anybody else do anything that's bad for students. And if you're trying to do one or the other, raise achievement only or lower costs only, neither side seems to get very far. And so we've found that only when you do both at the same time does the conversation and the results actually happen.

Second piece that we just suggest before you start this in your own districts is you got to assemble the right team. And you'll see as we go through, the right team may not include all the people that you might've

naturally thought about. How many times I've given or sat in on that presentation to the school board where we say, once again, students with special needs didn't do as well as we hoped or the achievement gap is larger than we want, and all the heads in the room turn to the director of special education. And they either say out loud or to themselves, hey, what are you going to do about that? And just one day, and I get to do this as a consultant, but I wish I could see it -- you know, I'd just like the director to stand up and say, I can't do this alone. It's not a special education department problem. It is not a special education department solution.

It's going to need to need, and as you'll see as we walk through, enormous involvement from general education. It's going to need involvement from the transportation department. It's going to need involvement from the data and accountability department. It's going to need involvement from your business office. It is a large team, and even though special education staff are important, they're not even the majority of the team. And so we've got to get -- like so I was a little disappointed we didn't have as many general educators in the room today, but that's not uncommon. They're a big part of the solution.

And lastly to pinpoint the opportunities. We're going to talk about a few things today. The article will talk about even more. You can't do many things well. And that's not an insult, it's a reality. So any effort to move special education forward should be very focused. Don't try all the things we're going to talk about today. Try just one. And it's going to take you two or three years to pull it off because if it was easy, you would have already done it.

So as we think about our 10-step process, and we're not going to spend too much time on this slide, five of the steps really focus on what's -- how you make things better for the student. And we're going to spend a lot of time going into some detail of these today. The other five focus on how do you make your systems, the way you run and manage special education, better, more student-centered, and more efficient. We're going to just touch a little bit on this today, but not as much because I figured we'd all rather talk more about the students than the systems, but both matter quite a bit.

So a couple ground rules for what I'm going to share with you today is every idea must be child-centered, that it's not okay to balance the budget on the backs of our neediest students, but it is okay to spend less if it doesn't harm students. And I think we've got to get comfortable with that. Again, I have sat through so many conversations where any sense, and again, my wife's concern for me having an empty room today, that when we talk about special education and finances, you kind of get defensive, you feel you got to protect our kids, and any lack of funding or reduction in funding must be bad. And we want to try to separate bad reductions from okay reductions. None are good, but some are okay if we can make sure that the outcomes are going to be better or the same.

As we go through today, because this is all about the students, I'm going to try to talk about some of those ideas through the perspective and the eyes of the very students we want to help. So let's talk about Robert. I suspect all of you get a lot of kids that are just like Robert. He's really got just one real issue. He doesn't read very well. Struggles with that -- with sounding out words, he doesn't like to read. He reads slowly, often doesn't catch the main points. I assume all of you have met and taught kids like Robert.

So what do we do because we're a caring group of educators and when we see somebody like Robert? In a lot of districts, and again I'm going to talk about what we see across the country, your district may be different, but this is what we see in lots and lots of places is what I would call a test and refer solution. Step one, classroom teacher notices that Robert's not reading very well. Universal assessments, almost everybody these days, particularly K to three, maybe K to five, we're doing DRA, we're doing DIBELS, we're doing some kind of benchmarking, running records. We know that Robert's struggling with reading. We got proof. We then refer them to special education for testing and guess what? The testing is going to prove Robert has trouble reading. Kind of already knew that, but we did our own tests, Woodcock-Johnson, pick your poison, and now we know for sure he has trouble reading. Not sure we saw much else, so we're going to call him specific learning disability -- not specific, or LD. And we're going to spend Robert to special education, and hopefully that's going to make things better.

And we're going to give Robert some help. That's why we went through that process that took two-plus months and a whole lot of meetings and even more paperwork. Now depending on your district, maybe one of the following things happen for Robert. He might get pulled out during core reading time to get help with reading from a special education teacher. Mind you, we're signaling to the general education teacher, not your job to make sure Robert can read because we don't even leave him in the room when you're teaching reading. Some of you might have an army or a small group of paraprofessionals or tutors to help Robert. And others of you will have special education teachers who are going to pull Robert out or perhaps go into Robert's room to help him.

And in some cases, the person coming in is a great teacher of reading and great things are going to happen. In lots of cases, the person going in is a great person, great special education teacher, but not actually trained in teaching reading. In surveys we've done on more than a handful of districts, even at the elementary level, often as few as 5% of the special education staff in a building have had as much as one course in how to teach reading. Often that instruction that Robert's going to get from the special education teacher is not tightly connected to the daily instruction. They got their own curriculum. They bought it with IDA funds. Often that -- the help is not providing extra time. That's when it happens so it's either push-in. So we're not really giving him more time to learn to read. We're giving him more help, but not more time.

And sometimes, not always, but sometimes, the people helping Robert really deep down don't think he's going to get to grade level. I mean, he's going to get better, but, you know, he's got a learning disability, so he's not really going to be at grade level. Nationwide, about 40% of all students referred to special education do not have a disability. They just didn't learn how to read. For kids identified with SLD or LD, that number goes as high as 80%. So if that's what we've been doing for Robert [inaudible] these approaches have not closed the achievement gap.

You know, if Robert were my son, which is almost always the perspective I try to take when I'm thinking about what should we do as a school district, as a school leader, what would I want? Well, it turns out that I kind of -- somebody a lot smarter than me figured out what I should want, whether it's the National Reading Panel, the What Works Clearinghouse, districts that have really closed your achievement gap. In the area of reading, we kind of have cracked the code here. We know what works. We're going to take just a minute or two to walk through the eight things that we have distilled from the National Reading Panel and other sources. And then we're going to just do a little bit of comparison to how this matches what might be more typical.

So the eight things. Number one, clear and rigorous grade level expectations. I am amazed at how many places I visit that have been doing DIBELS or DRA II for longer than I've been around. But when I ask, okay, so where should all students be at the end of first grade on that DRA II you're giving? So often I get the answer, it depends. That leaves so much room for me to say, you know, Nate's doing okay for Nate. Or, you know, it depends. If he's special needs or general education, we got different expectations. Districts that have closed the achievement gap publish, look at, reinforce absolutely concrete measures of achievement for all students at three or four times during the year so I don't even need to wait till the end of the year to know whether Nate's reaching proficiency or not.

Number two, frequent measurement of student achievement and growth influencing instruction and intervention. Again, the places that measure don't always do something as a result of those measures. I've also noticed in a fair number of districts students with special needs are somehow exempt from the measuring. They're measured less often, not more often. Number three is you just can't start early enough. You can identify struggling readers on the first day of kindergarten. Districts that do this, within a year or two when I come back, they have found it is so beneficial, they start identifying them a month or two before kindergarten starts with voluntary screenings because they just want to start right in on the first week of school and don't want to wait.

Number four, I suspect most of you are doing really well on this one. In our travels, we see most districts have come around to about 90 minutes a day of a literacy block, balanced instruction in the five areas. Number five, though, is a lot tougher to pull off and we don't see it as much, and that's the remediation and

intervention being very tightly connected to today's lesson. Now one of the things about kids who struggle, they struggle to read. They also struggle in changing gears. If you ever watch, now I've gotten to do this, follow a student who struggles through the course of their day, and they've got Mrs. Smith in her classroom who's teaching phonics using the owl and the ah sound and ah says apple. Then they go and get extra help and not only is there no owl, there's a different curriculum. Ah means something else. It's not apple. They're working on different sounds or different skills. And we've interviewed students and they get really confused. So all this extra help isn't nearly as powerful when it's not connected to the instruction they're getting earlier in the day.

Number six, our experience is many, many districts are not doing this and that's the time factor. Kids who struggle to read are going to take more time to learn to read than their peers who don't struggle. How much more? At least 30 minutes a day, five days a week on top of the 90 minutes they were already getting. Again, in about nine out of ten districts we visit, the extra help isn't extra time. And it just seems silly and certainly borne out by the facts that all children can learn at the same speed. And we need to find time in the schedule to provide extra time for them.

Number seven is explicit instruction in phonics in the early grades and explicit instruction in comprehension in the later grades. This one surprises some people. Everybody says, we really -- we do this, Nate. Don't worry. It's the word explicit that I want to underscore. Often -- and most students, this is interesting, most students in a classroom will learn phonics just by being around it. An awful lot of kids will learn to comprehend by reading and practice. But about 20% of your kids will not. And you actually have to teach them explicit strategies for comprehension. Yes, it's a lot of drilling for phonics and we find in some districts and certainly some teachers, just they find it either unexciting or unnecessary and it's true that most of their students don't need it, but a fair number do.

And number eight, which we call the Homer Simpson National Reading Panel recommendation, it's like so obvious even Homer would get it, is that you need a skilled teacher trained in reading to work with the students who struggle in reading. Very, very few people take umbrage with that statement. It's like, duh, okay. But if you actually look and really map who is providing the instruction to your struggling students, ask yourselves, are they the single greatest, most skilled, most trained, most able teachers of reading or not? And if the answer is yes, great. And if it's no, the first seven things on this list won't work.

As we -- and as districts have ruled this out in Arlington, where we embraced all eight of these with a fervor, people who came to study us used to comment that these eight principles were the guiding light in our district. Quite honestly, principles were evaluated formerly against achieving these eight. The results, which I don't have a slide so I'll just share with you, prior to putting these eight in, we had about 65% of our students K to five reading on grade level. For a middle class community, I didn't think that was so great, but it had always

been about that. Within three years, that number had risen to almost 93%. That was pretty darn good. Still a little ways to go.

Maybe even more exciting is the kids who started the year behind, because this is about gap closing. Prior to these changes, if you started the year, you know, that first day of school, we assess you and you're not at grade level, about 90% of these students ended the year behind. After putting these eight pieces into play, over 64% of the kids who were behind caught up. That's just one example. We've seen this elsewhere. This really does work. Having shared this with a lot of districts, people get excited. They say, okay, let's go do it. You know, certainly, I hear you, we need reading teachers, we need time. We're going to need these measurements. This must cost a lot of money. And that's, you know, where like all the energy kind of leaves the room as the principals and the directors of curriculum are thinking, how do we afford this?

Here -- oh, I did have the data. So Arlington, from 65 to almost 93%. Here's the interesting part. The cost. And we're not going to dwell on the cost today other than if you walk away from today's discussion simply believing that cost is not your obstacle, then I will feel good. In Arlington, we were spending, depending on the building and the process, between 4,000 and \$7,500 per student for a system that produced only 65% of our kids reading on grade level. Afterwards, we were spending \$2,000 per student with dramatically higher achievement. You know, offline or in another date, we can walk through all the economics of this, but just know and believe me, hopefully, that it wasn't more money that drove the achievement. In fact, it was much less money.

So moving beyond the issue of reading, which is clearly something near and dear to all of us, I want to talk a bit about Paula. Paula gets help from a paraprofessional. And I'll put it out there if, you know, talking about reading, which I generally consider to be like motherhood and apple pie, very, very few people have a disagreement on how important reading is. Talking about paraprofessionals jumps us to the entire other extreme. Some of you may love them, some of you may not. Most of you have a bunch of them.

So you know, let's think about Paula for a minute. She's got trouble focusing on her work. She acts out at times and she's struggling academically. This is a student in need. And as you can see from the list, more than a few needs. So our typical reaction for Paula, you know, a good caring reaction, a good district that wants to take care of their students, students like Paula, they're going to get her a paraprofessional. And you know, how often do you see, certainly I saw, when mom and dad walk out of an IEP meeting, particularly if only one of them is there, they -- they're walking out, they're in the hallway, they flip open their cellphone and call their spouse and say, we got one with huge joy. I mean, like this is the holy grail. We got a paraprofessional. Everybody seems really happy. Teacher's happy because vastly fewer disruptions in his or her class and we know how frustrating that is. Mom and dad thrilled they got extra help. And even as a principal, you got to feel



pretty good, you know, even in a tight economy, you're providing extra help to a child who clearly needs something extra.

Unfortunately, a lot of people are happy though the research says Paula shouldn't be all that happy. I know we don't mean it, but that no more disruptions in class, here's how we get it. When Paula acts out, she's taken out into the hallway. We didn't teach her how to cope with her issues. We learned how to get her issues not to be issues for everybody else. What she has really learned is that when she does not want to be in class to act out, and she gets to leave class. You know, mom and dad's thrilled and this is a conversation I have had with more parents than I care to count. We're not doing this on purpose, but we've interviewed more than 1,000 classroom teachers. Here's what they tell us, particularly after they've loosened up a bit. They look out at their classroom, they have 25 students, and Paula has an aide. So the teacher's thinking, I got 24 kids to take care of. Paula's got her own built-in help. Classroom teachers spend much less time with students who have paraprofessionals. We are making the non-teacher Paula's teacher. Parents should not have jumped up and down for joy on this.

And lastly, as much as I know we are trying to help and there's nothing but good intentions here, the use of a paraprofessional can foster both dependence and social isolation. We didn't plan on that, but we do get that an awful lot. You know, looking at the data, and again we're trying to balance what we see every day and what some hard research says, this was a study we did in Massachusetts, 30 very, very similar communities, wildly different levels of paraprofessionals. What we saw were the districts that had more paraprofessionals actually had less achievement for students with disabilities. As we visited many of these schools and I've spent days observing, sitting in the back of a class, watching what goes on, in the places that have lots and lots of paraprofessionals, the paraprofessionals have become the teachers. When we interview, when we interview the paraprofessionals and ask them, so tell me what do you do? I can't tell you how many, particularly in these districts that have a lot of them, answer something like, I teach reading. I'm Nate's instructor. I'm helping Nate overcome his math problems. I know we didn't intend to do that, but we have created a system that tends to provide lots of support, but not necessarily the kinds of support we really wanted.

You know, what Paula needed was very targeted support. And I want to really, you know, reemphasize Paula needs something. That's what got us to the point. Nobody's -- in these -- this day and age, you know, assigning a paraprofessional just because. But if Paula has trouble reading, she needs time with a reading teacher. If she's got bad behaviors and acts out, she needs behavior management. That is a skill. That is what behaviorists are for. I don't know how many of you have behaviorists. If you do, they're often in your autism programs, but this is a skill that is of such great value of teaching how to cope, how to prevent acting out, how

to see it coming, teaching teachers what they can do to prevent students from acting out. And obviously if I've got trouble in math or Paula has trouble in math, a math teacher's going to be a whole lot more helpful than a paraprofessional.

You know, the weird part is like how did we get here? Well, my favorite line is if all you have is a hammer, everything starts to look like a nail. Here's the deal. If you're sitting around at an IEP meeting and you have Paula in front of you or Paula's mom or dad and you know you need to do something, the chance of you sitting around that table and saying, you know, we need a behaviorist for Paula. We don't employ one. Very rarely does anybody around that table open up their cell phone, call the superintendent, and say, hey, Mr. Superintendent, we need you to hire a behaviorist tomorrow. The reason you don't make that call is because he or she would either laugh or frown, but definitely not hire a behaviorist tomorrow.

If you said, okay, if you're not going to get us a behaviorist, at least get us another reading teacher and an extra math teacher. And that's not going to happen either. But here's what you can do sitting around that table. You can write in Nate will get or Paula will get the support of a paraprofessional. Now it's an act of law. You didn't often have to ask permission. You had that authority. And if you didn't have a paraprofessional to work with Paula by Thursday, by golly, you're going to get one. So it's one of those strange things that we've created a system that allows you to add paraprofessional support, so we do. And it doesn't allow you to add a lot of the kinds of supports we would rather have.

And this is a really good example about why when we say it takes a large team and the right team to improve special education. Special education directors, special education administrators, you don't have that authority to add math teachers and general education reading teachers. You know, if the superintendent's not at the table when you're having these conversations, if the Director of Curriculum and Instruction's not there, you're going to end up with more paraprofessionals and fewer reading teachers and fewer behaviorists. So I fault nobody in the room other than all of us collectively because the system keeps driving us to something that we would rather not have.

You know, the question that I like to pose and I want each of you to think about is what was our goal to help Paula? Did we want her to get through the day? To get through graduation? Or to get through the 80 years that are going to come after her graduation? You know, it's been our experience, and I think the research is really strong on this point, that intensive paraprofessional support does help Paula get through the day. She stays focused. Her behaviors don't disrupt. She goes out into the hall room or into another room for a little bit, then she can come back. So they are working at some level if the goal was to get through the day. For the most part, it'll get her to graduation too.

But the research, and my favorite source of research are moms of 25-year-olds who had paraprofessionals from first grade and up through high school, and what they tell us is they got a hug from their paraprofessional on graduation day and then the para disappeared, and my son or daughter was not able to cope, not able to focus. The dropout rate of students who have paraprofessional support in college or junior college is astronomical. Even these colleges that have put in, quote, so much support for students with special needs. Support means there is a place you can go from three to five, five days a week, to get some help. Nobody comes and gets you. Nobody makes you go there. If we are thinking about success as lifelong independence, I don't think you ever look at assigning a paraprofessional in the same light.

So I think we're really helping Paula if we provide as much peer support as possible, that we only support her in the tasks that she can't do on her own. This is the less is more. That we only provide support as long as needed. I mean, how often are these battles, these -- I mean, I've sat in on them when you're talking about fading paraprofessional support, and the parents and often the teachers and sometimes the principals think this is a takeaway. No, this is success because our goal should have been to not need a paraprofessional for the rest of your life. But we're not always framing it that way. It just feels bad that we're taking something away.

We want to use paras as support and as a bridge to build skills. I want to make sure if I'm struggling academically, I'm getting my instruction from a teacher, not a non-teacher. So if lifelong independence is our goal, you know, look at how you write IEPs, look at the services you're providing. And all of a sudden, you know, then the paraprofessional does not look like the cure-all or the great win. And it hopefully creates the pressure to ask, you know, can we not just have a hammer? Can we have a screwdriver and a reading teacher and all these other things that we'd rather have? And if -- you know, certainly we want to do this because it's good for Paula. That's first and foremost. And again, like everything we're going to talk about today, it's also good for the budget. That's the lucky part.

You know, again, these are kind of typical averages that we've seen across the country. A one-to-one paraprofessional with benefits, that's about \$30,000 a year all in. Even if you share the paraprofessional, which is often considered like the big step forward, that's about \$15,000. If you -- even if you said, okay, we're only going to have the shared paraprofessional for part of the day, you're still looking in that \$5,000 a student range. But a behaviorist, we've noticed that a behaviorist can be highly effective, work with a student and a teacher for days and days and days and really create behavioral plans and monitor them, it's only \$3,000 a student. And a reading teacher is \$2,000. So when people say we can't afford reading teachers or behaviorists, well, you actually can because you're spending so much more elsewhere, but the system doesn't make it very easy and I definitely believe that many of you, as special education leaders, don't have the authority. But at

least at a district level, you already have the money. You are already spending it.

So if the paraprofessional one is -- the paraprofessional issue is certainly complex. Lots of caring, smart people may see it differently. I'd like to talk about next Matt. Matt struggles in math. This one's a little less controversial. I think it gets a little bit less attention. But as I think about Matt, and I've met a whole lot of them, struggled in geometry, might fail algebra one. We know he has some gaps in number sense and math facts. He's never been a great math student. So I mean, he's got some holes. I mean, he's in middle school or high school, but he was never really hitting it out of the park in math all along the way. He definitely does not like going to class because when he's there, it's confusing. He's not feeling very successful. And he is likely classified as learning disabled.

Lots of schools, unfortunately, have kids like Matt. We're caring, we're trying our best, and so depending on the district, we're going to do something special for Matt. We're not going to just let him, you know, hang out there and fail. And this really varies quite dramatically from district to district, but maybe he's going to get something. And I apologize, every district seems to have a different name for the exact same thing, so my terminology may or may not resonate with you, but replacement math. That means we're going to have Matt go to a separate classroom taught by a special education teacher, and he or she is going to run a math class five days a week and it's going to replace his general education class. Other districts, Matt will go to a regular math class plus extra help in the resource room, where a special education teacher is going to help Matt and a bunch of other kids, try to supplement the instruction, maybe help with homework.

And then we've got co-taught or push-in, where a special education teacher will go into that general education math class and give extra help to Matt. This has been -- and again, there are lots of variations on these themes, but these have been what we have seen across the country as the three most common responses to a student with special needs who struggles in math. Definitely common sense. We're trying to do something extra, something better. Here's the unfortunate part. These methods have not closed the achievement gap. So I am not saying that they can't work and they're not working in any place in the country. There are definitely pockets of success with all three of these methods, but as a whole, especially in math, we've just not seen the gap close.

And again, it really depends where Matt goes to school because it is so dependent often. And I didn't even say which district. It can change from building to building within a district. You know, if Matt went to Arlington, Arlington High, life might have been good for him. When we rolled out, I'm going to share with you some of the changes we made. We were able to increase the number of students scoring proficient or above by nearly 23% over a three-year period. At the -- during that same time period, the control group, the schools that chose not to try this because they were quite committed to some of those other practices, they saw a 0%,

no change.

What's really amazing is if Matt were lucky enough to go to the Bromfield school, this is a high school in Harvard, Massachusetts, no relationship to the university, it's about an hour away, other than John Harvard founded the town of Harvard, got tired of living in the country, and then moved about an hour into Cambridge and decided to found a university. They named both of them after him. I think the university is a lot more famous. What was so amazing about the high school in Harvard, Massachusetts is kids with special needs. And they've got a very typical identification rate. They had more special education students scoring advanced or proficient on the state test than general education students statewide. They have actually found a way, on a pretty consistent basis, to get kids with special needs to score above what most districts can get -- achieve with their general education students. I will also point out the town of Harvard, it's not a particularly affluent community. It is a very, very low-spending district. They're in the bottom quartile in per pupil spending. Just -- and again, it doesn't mean that you just cut your budget and scores will go up, but it hopefully -- it suggests there are some places that have done some amazing things without spending a whole lot of money.

So if Matt were my son, again, always my frame of reference, what would I hope? This is a list that we have assembled. There's not nearly as much research in math as there is in reading. We have assembled this from a number of studies and from looking at places like Arlington, looking at places like Harvard, and looking at research where they have studied what has actually closed the achievement gap. So this is not theory. You know, hopefully if you get a sense from our conversation today, education has suffered, all of us have suffered from so many good ideas that turned out not to be good ideas. I suspect we could make a list and fill a few pages of those. I hate to think of how many of them were presented at conferences like this by people like me. So my only commitment to you today is anything we're going to share with you has actually worked in a bunch of schools across the country. It's not a theory. It really does work as I do not want to make that list someday of great ideas that sounded so good and turned out not to be.

So what do I want for Matt if he were my son? Inclusion. It really does work. And again, I think most of you -- we pretty much as a country have figured that out. Standards-based education has turned out to be so important for students with special needs. And I want to pause on this one because some people like standards-based education. Some people want to help kids who struggle. But they don't always see the connection. I know over the last ten or 15 years, I have read, watched, and met with Doug Reeves 100 times, who talks about standards and power standards, and I've drunk his Kool-Aid. I will not wear his bow tie, but damn, I like what Doug has to say. And fortunately, his office is about three blocks from my office, so I get to get together with him a couple of times. And here's where I always want to grab him by the shoulders and shake him, say, you never talk about special education. But what we have found is that standards have been so

powerful in raising achievement for kids who struggle.

And I just want to make the connection for you explicitly. It's establishing what every student should know and be able to do and then believing that it's every student, including the ones with special needs. Having an end of year assessment that says this is what mastery of algebra or of geometry or seventh grade math is and having everybody know that even if I have a learning disability, I am supposed to be able to master that.

And if you doubt the power of this, I want to share a story. One of the schools in that control group in Arlington that was at zero, I had about 100 or so teachers in the cafeteria come up there with the microphone, my deputy superintendent who was kind of the standards guru, wrote his thesis on it, had helped put it in all their districts, is addressing the faculty to talk about that over the next three months we will be building standards in math and writing for grade six through 12 and common formative assessments, and here's what it's going to look like and here's why we're going to do it. All the heads are nodding.

We're kind of wrapping up at the end of the day. And a hand goes up and it's a special education teacher who handles a lot of our math classes for students with disabilities and says, this is all far and good, and I see your timetable and you've got it all laid out. But once again, once again, you guys forget us. You know, we're the forgotten children. I was a middle child, so I totally understand where she was coming from. She goes, I don't see even on your timetable which goes out two years, when we're going to sit down and do the standards for special education students in math and writing. And I'm thinking, okay, you did not hear a word we said in the last two hours, but I had the good fortune or good judgment to keep my mouth shut because I know if I said anything at that moment, I would live to regret it. But my deputy did not and he said, well, you weren't listening. They're the exact same standards. That's what makes it a standard. Special education teacher thought for a minute. You know, looked puzzled. She kind of looked over at four or five of her colleagues and said, ladies, we're out of here. And as a group, they all stood up, marched out, and wrote a letter to the union.

It might have been the first time where me and the union president were on the same side of the issue. But this is how deeply embedded the idea that kids with special needs might not supposed to be getting to grade level. So standards-based education has been a huge boon for kids who struggle when you establish just one level of excellence. The extensive use of student achievement data just goes part and parcel with that. You need to know who's learning and what's been learned. Number four sometimes confuses people. One is -- it is a slightly reduced curriculum while maintaining general education expectations. This is the Doug Reeves power standard. And we do need to teach kids 90% of the curriculum, but sometimes in some districts there are a few things that are above and beyond. I want to be really explicit about what's in and what's out.

Number three. Excuse me, number five, but mis-numbered. Extra time on task. A lot of extra time on

task. Come on, most kids in your schools take an hour a day to learn math in the middle school and high school. Not everybody is going to learn it in an hour. Kids who struggle definitely are not going to learn it in an hour. And mind you, we mentioned earlier Matt didn't do so well in the years before. Where's the time to teach him the stuff he didn't learn in fifth grade and sixth grade and seventh grade, which he definitely needs to get through eighth grade, ninth grade, and tenth grade?

This issue of time and -- sorry, I'm watching -- I am watching you. There are some heads nodding. This doesn't seem like totally radical, wasn't worth -- you know, you didn't waste an hour so far. But let's be clear. We've looked at the schedules of your middle schools and high schools across the country. Fewer than 10% are providing substantially extra time for kids who struggle. And we may know it. And again, it is not criticism of you because I've yet to meet a special education director or special education supervisor, special education teacher, who actually controls the high school and middle school schedule. I'm not sure I've actually met anybody who really controls the schedule because it seems to control us. But if you do not change your schedule, if you do not provide extra time, can we be all that surprised that Matt did not learn what he didn't learn before and didn't master this year's work as well?

Number six I touched on before. You got to believe that these kids can achieve or you're going to prove yourself right. Seven is also really hard. That's the collaboration between special education and general education. You cannot do this as special education endeavor by yourself. Just not going to happen. And we need to get -- you know, the number of meetings I've sat in on where we were talking about dramatically improving math instruction at the secondary level for kids with special needs and they've brought everybody in. You know, Nate's flying in for the day. He's got a bunch of people from his firm, so the superintendent's going to be there for the day. Of course the special education director. I got all his or her administrators. I got teachers around the table. Oh, they forgot to invite the director of math. The director of curriculum and instruction was busy. You know, I'm looking around the table and just want to say, we should just stop. Let's go get lunch because some of the really important people who have to be part of the solution either chose not to come or you forgot to invite them. This is a joint effort and anytime you find yourself trying to tackle this problem and you don't have general education at the table, stop, go get them, drag them there.

And lastly, number eight. Kids who struggle in math, they tend to struggle with study skills as well. There's just such -- you know, particularly if you think of the way we grade, and I'm not going to start the grading discussion today because that'd be another two hours at least, but if we accept the fact that most schools, when you don't turn in your homework, your grade drops a whole lot. If we accept the fact that if you forget to study for a test, your grade is likely to drop a whole lot, kids who struggle in math tend to have really lousy study skills. But the good news is that is a skill you can teach. And making sure that study skills are

embedded in the core content classes can really be helpful.

I want to underscore, though, the word core content classes. I was working in a district for -- we've been there for about four years now and they have, on one hand, the strongest commitment to study skills I have ever seen. They have got to be a poster child for more than a couple vendors of study skill programs because they have like 14 study skills teachers. And almost all the kids with special needs, and they got a lot, it's a district in New Jersey so they got an identification rate that's in the top 20%. So one in five kids are getting five day a week study skills.

Here's the problem. Their math teacher, English teacher, foreign language teacher, science teacher, you name it, didn't take the class. They don't use any of those strategies. So we're teaching the kids never bring a spiral-bound notebook to class because you can't rearrange pages, you can't take things in and out, and we got teachers in that very building taking 10 points off if you don't bring a spiral-bound notebook to class. We tell kids never, ever, ever leave the room without writing down the homework which is on the board, and more than half the teachers do not write the homework on the board. This total separation of I teach it and then hope somebody uses it, it's not all that helpful and so the places that have closed the achievement gap, it really has been where study skills are taught and used in the core content classes.

So these eight, taken together, have been very powerful. Again, we closed the achievement gap in Arlington by more than two-thirds. In Harvard, I mean, those kids just did so darn well. These are the kinds of things they did. The one bit of sad news is this is not a Chinese menu or a Chinese buffet. You cannot pick and choose. If you do six of the eight, you get nothing other than a lot of hard work and a lot of frustration because scores didn't change. So this really is you're either all in or don't bother going too far.

So just, you know, kind of what's different? You know, if Matt went to Arlington or Harvard versus, say, Arlington before the changes. You know, in replacement math, that's the class where a special education teacher's teaching math instead of any general education math. I mean, try as we may, the expectations are lower. I mean, we've interviewed these teachers. They're not really thinking it's the same curriculum. Almost always the content is not particularly rigorous. And on a most basic level, the class is not taught by a math teacher. Math is hard. Some of you may love math. I was an engineer in a prior life. I like math. Not every math -- not every special education teacher likes math. Not every special education teacher is good at math.

We've done interviews with special education teachers who have been assigned to math who hate math. Why were they assigned? Because they were the newest. Because they had the least pull. Because somebody had to do it and they took one for the team. You laugh, but you know this happens. Kids who struggle in math need great math teachers because a great math teacher doesn't just know math, they know



how you think about math. Well, when you write down 11 and the answer is seven, they are thinking, the teacher is thinking, here's the steps he likely did wrong. Here's what he must have been thinking to get to that wrong answer so I know what to reteach. That takes a really deep understanding of the subject.

In the resource room, which is a very common Matt goes to a regular math class in the morning and then he goes to the resource room for extra help in the afternoon. This is definitely getting at the extra time, but you know, most of the time when I'm observing, this is homework help. And the reason it's homework help rather than reteaching is, first of all, the teacher's time is split amongst four, five, six, eight students, multiple grade levels, maybe multiple subjects at the same time. It's not taught by a math teacher. Every math class is at a different place during the week or the month, so what would she be able to teach all of them?

And co-teaching or push-in, which I know has been growing in popularity, I'm curious how many of you, just a quick show of hands, use co-teaching or push-in support? Okay, so a little more than half. Certainly, there are some great, great benefits to that, but we're not getting the extra time on task. It's usually two teachers, so I get more intensity, but not more time. Obviously the co-teacher, the special ed half of the pair, isn't a math teacher and we know that. But we end up -- got to be careful, again, in our observations. Unless that pair, that co-teaching pair, is working hand in glove, we so often see more of a divide and conquer than a cooperation, where a little group of kids are off with one teacher and a larger group off with another. And I'll tell you, and having watched a few hundred of these classes, it is pretty seldom that the special education teacher took the 25 kids who are doing well and that the general education teacher took the four or five kids who are struggling. So what ends up happening is, as a student who struggles in math, I am going to get less attention from the person who really knew the math.

So what would a day look like? This is a question we get asked a lot. There are lots of -- you know, how do you make those eight things happen in a real life schedule? There are lots of different variations, so these are just two. I'm not married to these two, but the two most common. One is what we call double-time, where there will be one teacher, a math teacher, who is going to teach a period of algebra two that goes from period one to period two every day. It's as simple as double the time. Teachers -- it's a general education teacher. The teachers love this because it is the gift of time. They tend to do a lot of daily formative assessments, like do these two problems while I watch so I can know what you've learned in the first 30 or 40 minutes because I have five minutes to give you to do these problems so I know what to do. I am getting, as a teacher, real-time feedback in the middle of the class. I also have enough time to make up some of the topics you missed in the past.

And interesting enough, I have enough time to get to know you as a person. We know that connection between teacher and student matters a lot. And again, we've seen so often like when a teacher says, so Nate,

how are you today? And you're -- I'm about to tell her about my soccer game last night and she's thinking, I got to keep this short. I really want to hear, but I've got so much to get through in the next 52 minutes, I cannot have a long story. And they feel guilty, but they got content to cover. Having this double period has been incredibly powerful, especially, and this is an important part, especially if the teacher who is teaching it is there as an honor. We call it the other AP. In a high school, the person who gets to teach AP math, you get to like walk a little taller. You get to strut a little bit into the lunchroom, teachers' lunchroom. I have a friend who's a math teacher, she's been waiting 13 years to get to teach AP Calculus. That has been her goal. She has actually stayed with this district when she realized that the current teacher will be retiring in seven years and she's going to wait him out. There's that much honor.

When I came to Arlington, the people who taught math for struggling students usually had the same name, TBD. It was a teacher we hadn't hired yet because all the ones we'd already hired had pulled in all their political capital to not have to teach it. We turned that around. We made it an honor. We made it pretty clear that you would never be department head if you were not engaged in raising the achievement of our most struggling students. We made it a handpicked. And it doesn't mean it's the same person as an AP teacher, let's face it. Some of them don't connect with this group of kids, but it can't be the worst teacher with the least clout just because they'd only been there a year and didn't have tenure.

That's the double period model. That can be hard to schedule. The schedule often controls us. So an alternative is what we call integrated math support. And please, this is not the resource room. What it says is period one, Matt's in a regular math class. Later in the day, maybe four or five kids from that first period and four or five kids from a few other periods in the day all come together with a math teacher. Now it has to be, again, a math teacher who wants to be there and a math teacher who is teaching that course that semester. So she or he knows the curriculum, knows what they're covering this week. Ideally it would be Matt's teacher, but if not, somebody else in the department. And during that second period, they're going to be reteaching some of the content from earlier in the day, they're going to be doing some dipstick formative assessments, and they're going to be reteaching some of the skills that hadn't been taught.

While all this is going on, the special education teachers are supporting the math teachers. I'll say that again. The special education teachers are supporting the math teachers, not the struggling students. Why is that? Because the expertise of the special education teachers is in pedagogy. They know how to break things down. They know how to scaffold. They know not to assign 50 damn homework questions that are only testing two concepts so that what you are really testing is student stamina, not student knowledge. Those are great skills that even great math teachers can lack.

But as great as that special education teacher is, knowing how to scaffold and knowing what a good

homework assignment is and knowing to check for understanding doesn't mean you could explain to a student who can't understand why, when you're finding the area of triangle, you divide by half but not when you're doing it for a rectangle. They just don't necessarily have that deep content knowledge, and often we're asking them to do both. And what we've seen work best is where the math teacher teaches the math and the special education teacher teaches the math teacher the pedagogy that they have great strength and the math teacher is in great need of.

Again, when we show this, some people hate it. I'm going to put that right out there. This is not necessarily our most popular slide. Some people say, I like it, I get it, it makes some sense, but god, that must be incredibly expensive. You need a bunch of math teachers. You need -- got double periods. Some districts make this double class pretty small, maybe 17 students instead of 25. Lots of places keep that class pretty small. All that has to sound expensive. Again, looking at district after district after district, and again, I'm not going to go into all the math, but trust me that we have done this math, co-teaching, you're spending -- or push-in, you're spending about \$7,500 a student. The resource room is in the \$3,000 a student range. And that general education double time is down around \$1,000 a student.

I just want to kind of pause and say we're not doing this because it's \$1,000 a student. I mean, we're doing this because it's actually worked. They were the eight things that we thought made sense. It's just fortunate that it happens to cost less. I'm not saying these are easy to implement because they're not. And you definitely cannot implement them as special education only, so that makes it really hard. But what I am saying is that money isn't the thing that's going to stop you from getting there.

So we're -- I'm starting to wrap up so you can be happy because I really want to leave time for your questions. I'm hoping, and it's just a hope, that a lot of what I've talked about so far seems like common sense. It is not radical stuff, but it's not that common. And I'm always puzzled. Like if it's good for kids, the results have been pretty darn good, it doesn't cost more, and it doesn't happen very often, you know, why don't we get a check mark for it happens a whole lot? And our sense is because it requires a lot of cooperation. It really requires working across budgets, moving money between silos, requires tons of coordination. And in short, it's a systems thinking approach to special education, which probably should have been the title of today's discussion, but I don't think I would have gotten as many of you. But it really is about approaching special education as a system and not as a department.

We've also seen, and again, you can go to our website, which I'll share with you in a moment, we've applied these kinds of logic, this kind of approach and research, to over-identification, to disproportionate representation, related services, transportation, substantially separate programs, the whole inclusion issue, out-of-district placements, budget management. And yes, we can never forget compliance. I've really tried to

focus today on some of the real core academic areas rather than some of these other areas, but another day would be happy to talk about those.

I do want to talk just a little bit about the system side, to just give you a taste of what happens when you apply systems thinking to your management in systems. And one of the best places where we find this is in the area of benchmarking. Benchmarking means comparing yourself to other places that are like you and see how they do the same thing. One of the most striking findings in all of our research is the variation from building to building within a school district is enormous. I've got a client with four schools and it seems like you would need a passport to go from one to another, they are so different. If you look from district to district, the variation is enormous. And from state to state, even more so.

We've actually collected data on how you staff from almost 2,000 school districts, the freedom of information request. If any of you responded, thank you. If any of you were annoyed, I apologize. But we've got data on almost 20% of all the students in America. And some of you have this many speech therapists. For the same-sized district, others of you have this many. And some of you have five times as many. Then we've called up some of you and say, hey, why do you have so few? And you always say the same thing. Do we really? Seems like we've got plenty. Then we call the people who have a gazillion. We say, why do you love speech therapy so much? And I had six years of speech therapy and I make my living talking, so I always feel bad when I make fun of having too many speech therapists. I owe them my career. But we ask the places that have five times as many speech therapist as like communities, same-sized district, and the answer is almost always the same. Oh, we're really short-staffed. We would hire two more if we could.

One of the great findings of our work is that each of you are approaching some of the same topics very, very differently. And we have not found a correlation in results based on the how manys. It's what your people do rather than how many you have that seems to drive a lot of the outcomes. Benchmarking, be it how many staff you have or your criteria, here's a -- just a great point. In Massachusetts, there's an eight-fold difference, and we are adjusting for the size of district and we're adjusting for the demographics of the district, an eight-fold difference in how many middle school students get speech services. In some districts, they've just never met a middle schooler who needs speech and language. And in other districts, they've never even thought about ending it before eighth grade.

I'm agnostic as to what you think is right or wrong, but at least know that you are at one end of the extreme or the other because when we've talked to these districts, they actually were positive that everybody was doing it the same way they were. They had never actually thought about whether they had a lot or a little, it just was the way we do it in this district. And some of these districts were less than five miles apart. I mean, it's just -- the other part about systems thinking applied to the management of special education. This is real

data. This is from a really, really well-run district with a great director of special education who has her finger on the pulse of everything that is going on.

And we asked the question, how busy are your speech therapists? How busy are your special education teachers? How busy are your occupational therapists? And the answer is always something like, whoa, I wouldn't want that job. They are just working morning, noon, and night. We've developed tools that allows us to work with these people, the therapists and the teachers, to learn what they do in detail. This is a district that was desperately looking to hire two more therapists because they just couldn't keep up with the workload. This is a graph of what portion of the week each therapist is working with students. So this woman, and they were all women, 82% of the week is with students. This person, who almost just a quarter of the week is working with students. Be clear, they're in the same buildings. They're not in a special program. It's how we allocated them. You know, the median -- or the average was about 56% of the week was working with students. What happens is the people who are up here rightfully make a lot of noise about how hard their job is. And the people down here sit kind of quietly.

We have found that just having this very detailed information allows you to manage things differently. This district looked at this and said it's just not fair, and changed how they allocate staff. They looked at it, and again, nobody's sitting around reading the newspaper, let's be clear. What happened is these people down here were in buildings that made them go to every meeting under the sun even if it had nothing to do with speech and language. They were in buildings that had the most god-awful master schedules that made it virtually impossible for them to put together a coherent schedule. But when it became known -- I mean, everybody grumbles about master schedules and grumbles about too many meetings. This was kind of proof. This was a level of detail that allowed that harsh -- that honest conversation with the principal to say, you can't have a master schedule that looks like -- that creates this. And you can't make everybody come to every meeting if they don't need to be there.

So applying some of the same approaches of detailed study, mapping the logic, and then making decisions in a systems thinking way, most of the solution to this did not lie in speech therapy. It didn't even lie in the special education department. This is a byproduct of principals, good ones but not necessarily ones recognizing what they were doing. So that's just a touch. Again, the article online will give you a little bit more. If you'd like to read more about it, so this is clearly the wrap up and we'll start the Q&A in a moment, [www.dmcouncil.org](http://www.dmcouncil.org). In the upper right hand corner, an article that covers all the ground we talked about today is available for download. So if you like it, download it. If you love it, forward it to all your friends. We really welcome the chance to share our thoughts.

And at this, I would love to pause and take your questions for about half an hour. Two ground rules.

One, you definitely do not need to agree with me, but please be nice. And two, when you want to speak, we've got some runners who are going to bring microphones. Please don't ask your question till the microphone shows up. I'll hear you, but it drives everybody else absolutely crazy.

**PRESENTER:** And it's being videotaped.

**NATE LEVENSON:** And it's being videotaped, so it'll drive all the people watching us crazy as well. Your thoughts or questions? Sure, yeah, if the runners see somebody, hand it to them.

**AUDIENCE MEMBER:** What's it cost?

**NATE LEVENSON:** What's what?

**AUDIENCE MEMBER:** What are your services? You said you would come in and it looks like a time study to me.

**NATE LEVENSON:** It depends. Great first question or terrible first question because the answer is it depends. It depends on a lot. The size of the district and really, typically, what we will do, the approach to working with the district that I prefer is either you know what your challenges are and we can come in and help address a particular challenge. But often, and no insult to any of you, you may not actually know what your biggest challenges are because of what I'd said earlier. You get used to things. So we do have a service that's called a special education opportunities review. It is on our website. That basically we will study everything about both special education and struggling students, and at the end of that process give you two very short lists, and I mean very short. The first is things that are going great because special ed never gets good press or at least not enough. And then second is four or five possibilities for what you should focus on over the next couple of years because we really need to get pinpoint accurate on what you're going to put your energy. Making these changes is not easy. I wish I could give you a better, more encouraging answer to that. So you can only do one or two things over a couple years. Other questions? Somebody had said don't be bashful.

**PRESENTER:** Oh, over here.

**NATE LEVENSON:** Great. And then we've got -- you're next.

**AUDIENCE MEMBER:** Okay, regarding time in a student's day, if we're -- from added time during instruction, what are your thoughts about missing a content subject to get more instruction in reading and/or math?

**NATE LEVENSON:** Sure. Great, great question. At the elementary level, we've seen there's usually -- because there at the elementary, we're often looking for about 30 minutes. And if you really marked the day, there is about 30 minutes that you can schedule that. And if you can't -- and again, I was an engineer. You know, if you had to miss some of science, life will probably go on particularly better for you if you can read because you're going to get all that science in middle school and high school. And you're not going to get it in middle school

and high school if you can't read and comprehend.

At the secondary level, a couple things happen. The first is foreign language. And again, depending on the state, that's often the first thing to go. We do not recommend taking away electives because, again, that can be why kids want to come to school. The flip-side is there are lots of kids who hate the electives and maybe that gives you an opening.

The third is I've seen, for example -- and again, depends on the state. Let's say you need only three years of history to graduate from high school or three years of science. I've seen where you delay freshman history or freshman science so you can double up in math or English or reading your freshman year. And then lastly, if there are study halls, that's definitely a place to go.

And I just want to touch on a question, in case, that sometimes follows up is, you know, isn't it unfair to make a student, Matt, go to two periods of math because I told you he didn't like going to math? What we have found is Matt didn't actually hate math. He hated failing math. He hated not understanding what was going on. And he hated the fact that his teacher kind of thought he was stupid and didn't have particularly high hopes for him. We have seen when you pick the right teacher, and particularly with that double block period where it's, you know, an hour and a half, and even in the other version where it's a second teacher but it's really devoted towards making connection to students and getting them to learn, we have actually had, grab this, kids sneaking into the math class because they heard from their friends, you won't believe it, I get it for the first time in my life. So I really caution you, the extra time, if it is well-spent, is not torture. The torture is feeling like a failure much of the day.

**AUDIENCE MEMBER:** I'd like to do all of these initiatives tomorrow or yesterday, but to your point that you should really focus on one or two at the most, what would you recommend that [inaudible]?

**NATE LEVENSON:** Sure. Wow. My -- again, if I put the like the necessary qualifier, every district is different, and so now I've covered myself, if kids can't read, their life is toast. I mean, I'm sure there's a more technical and politically correct way to say that, but if you cannot read and comprehend, nothing else we're going to teach you and nothing else you're going to try to learn is going to go very well. The research is incredibly powerful and scary. So the bad news is if you are not reading on grade level by third grade, absent one of these really major interventions, you will not be by 12<sup>th</sup> grade. I mean, they don't actually catch up without massive efforts.

The good news is there's a study that came out this year that looked at students of poverty. So I would say that's going to be the hardest group of kids to educate. Students of poverty who, if they were not reading on grade level by third grade, and I'm doing this from memory, were either 12 or 13 times less likely to graduate. But if these same students of poverty were reading on grade level, their graduation rates were

identical to more affluent students. So it really seems to be the one both essential and high leverage point. And so if that would be the one thing I do, that would be it.

If I had to do two things, which you didn't ask but I'm -- because I hate -- like you, I hate only having to do one thing. Strangely enough, dealing with some of this benchmarking, staffing, the management side of special education, I think would be the second thing. It would definitely never be the first thing. And the reason I suggest managing that side is it's our belief, and I do a lot of research on school budgets, it's an awful topic, the next four or five years are likely to be worse than the last two or three. So I know all of us feel like we have been through the ringer and like it's got to get better. There's a lot of evidence that suggests it is going to get worse for three or four or five years. And if we're not proactively figuring out how to manage ourselves more efficiently, somebody's going to do it to us. And you know, if you manage yourselves efficiently, you can find some savings that don't take a single thing away from students. And if we kind of get ahead of that curve, we can manage down thoughtfully. And if we don't, I think you're going to get what we call the dreaded across the board cuts or the we're just freezing everything, and you get a much less thoughtful way of managing down. So that those would probably be my two.

**AUDIENCE MEMBER:** You mentioned cuts, but the only one that seemed really clear was the intent to cut paraprofessionals even though in a number of our districts, they may be personal care aides and not really falling into the category that you're describing. In terms of the numbers that you've given, you know, this is 7,000, this is 1,000, you still have a time relationship to costs. In other words, the -- you still have to cover the kids somewhere. They're going to be somewhere and you still have kids, many of the kids that may have trouble in math, have them in reading. and as a result, something has to go out of the schedule. That typically is a problem that we're always dealing with. More time is fairly straightforward. And I'm trying to figure out how you're really coming up with any real sense of significant cutting. I mean, we've all had to deal with cutting in this state as many others, but significant, which is the implication, given the realities.

**NATE LEVENSON:** Sure. Let's talk about cutting. Definitely not a fun topic, but one that we've all been wrestling with. One way of thinking about what drives your budget is how many -- we know how many kids we need to help. That's the fixed part. The questions is how many teachers do you need to help them? And let me give you just a couple examples and these are real examples. One district was doing co-teaching, which meant each special education teacher actually served about eight or 10 students a year. That was his or her full caseload. That district moved to the double block of instruction and each teacher now served 60 students. That was -- we swapped, in essence, in this example, almost six special education teachers. I mean, we couldn't -- it wasn't all six because there was other roles they fill, but roughly five special education teachers were needed to serve 60 students, and one general education teacher was able to serve them. So because the class size in -- if I'm doing



co-teaching, sometimes I'm helping as few as two students at a time. When I'm doing the double block, I'm often helping ten to 15 students at a time.

In the case of, say, the -- excuse me, the speech and language, where we showed those different levels of how much time they spent with students, we've had districts, by carefully scheduling their speech therapists, again, they haven't changed a single minute or a single service in an IEP, actually be able to meet all of those needs with about 30% fewer staff. So most of these academic programs or management programs we've talked about end up allowing you, and this is not fun for sure and not desirable but sometimes necessary, allow you to meet all the student needs with fewer staff. And that's where the savings come because, as we know, in a school budget, almost all the expense is in staff. Great.

**AUDIENCE MEMBER:** I was wondering if you can expand a little on this double period. What are the makeup -- what's the makeup of the students? And then the second period, does it change? Do some kids leave? And then the second question has to do with you talk a lot about standards-aligned curriculum, and what is your opinion about obviously we want to teach to the standards, but how do you feel about like what type of instructional materials you would use? So if you have an eighth grade student who's functioning like a fourth grader in math, what materials would you think would be appropriate to instruct them?

**NATE LEVENSON:** Sure. Well, let's take the two questions there, we'll separate them. So the first is, you know, what does -- let me just find that slide so we'll be all looking at it. So that double block, you know, what does this look like? And again, lots of variation, so let me just describe a couple. In this double time, this will be a class typically of 15 to 20 students, all of them who are struggling, but not all of them are special needs. Typically, no more than half the class will be students with IEPs. It's typically for kids who are, say, a year or two, maybe three, behind, but no more than that. What they're going to do for the most part, let's say this is ninth grade and it's algebra one. They're going to cover Algebra I with the same end of unit, end of year test that all the other ninth graders in algebra one would be using. What's going to be different is, first of all, they have twice as much time to teach a one-year course. So essentially, you got two years' worth of instructional time to teach one year's worth of material.

The second thing that's going to happen during that period, because I have that extra time, I'm definitely not just at the white board writing away frantically for two hours. I'm going to use that time differently than if I had only one period to cover algebra one. So some of the differences are I will definitely do formative assessment every day. And again, so it doesn't sound like test to death, formative assessment in this setting is asking everybody to do the first homework problem about 45 minutes into the class. And while they're doing that problem, I am walking around observing and then seeing, okay, 13 out of 15 got it. I'm moving on. Four out of 15 got it, I'm not moving on. So I'm going to use that extra time to reteach and this is

why it takes a very skilled teacher. Obviously I cannot teach it the second time the same way I taught it the first time. That is so much like, you know, speaking louder to the person who doesn't understand English.

The third thing I'm going to be doing during that extra time is getting to know the kids. One of the most striking -- you know, I showed you that example of Harvard, Massachusetts. When we did focus groups with these kids who were special needs and scoring advanced, and to put it out there, advanced on the Massachusetts state test, it is the highest bar of any of the 50 state tests. It is quite a step above Pennsylvania's. So this is a very high level of achievement. When we did focus groups with these students and asked them, how is it that you're doing so well? The kinds of answers, we got one girl summed it up really nicely. She said, Mr. Levenson, I'm not very smart and I don't get math at all, but my teachers, they just won't listen to that. And they have so much faith that I can do this, I didn't want to let them down, so I worked really, really hard. So you know, building those connections takes time, but they're very powerful.

And then the last thing that they would be doing during that block is doing diagnostic testing to understand what basic skills were missing and using that time to reteach things that should have happened years ago.

So that's kind of how that the left hand option one would work. Option two works a little differently. The first period is a regular math class. It's a general education class. Maybe no more than a third or a quarter of the kids will be special needs. It's going to move at the regular pace. But then -- and you can think about there are going to be four or five other of these classes going on during the day in the school. A handful of kids from each of those regular math classes. Let's say, make my math easy, four of them from each of four classes will come together for this last period, so I've got 16 students. They're all struggling. They're not all on IEPs. They've got a math teacher who taught at least some of them earlier in the day and is in the math department who's going to, again, assess where they're at, reteach what needs to be taught, and try to make up for some of the past skills. Kind of the plusses and minuses is the one on the right is easier to schedule. Some people see the plus as having a different teacher because if the first teacher wasn't successful, the second teacher will have a different way of doing things, so I see some benefits there. Obviously you don't build as strong a connection because we've got two different adults rather than one. Interestingly enough, we have seen good results either way. I think the key is go back to those eight success factors and if you have all eight, you can fit them into either one of these schedules or other versions of it, and that's what really drives.

Your second question about materials. This is always the answer that disappoints. So let me just set expectations really low. I am asked all the time as I travel, what are good materials? And here's all I can conclude after looking at lots of them. No matter what materials you put in front of me, I can find hundreds and maybe even thousands of schools that using them. And so then I go and look at the schools that are using

them and some of them are getting great results, and lots of them are getting lousy results. And the only thing I can conclude is it wasn't really the materials. It was the teacher. So we have, as an organization and me as a person, am pretty material agnostic.

If you have the right teacher, they're going to walk in the -- I know you've got, you know, some vendors here. They're selling lots of books. You can go online. There's no shortage between Pearson and Houghton-Mifflin. They seem to produce everything. We've just not seen any one type of material more or less effective. We have certainly see teachers who are more or less effective. So if you get an effective teacher, I absolutely trust any materials they find. As far as grade level, you have that challenge. And again, I probably should preface like all of our conversations today, we're really talking about kids with mild to moderate disabilities. I mean, there is a handful of students who are not really going to do algebra one. I mean, these are kids who are not going to live independently, and so that really hasn't been -- and I probably should have, you know, stipulated that a little earlier in our discussion, but we need to make sure that, for the rest of those students, that large majority, that they are having access to grade level materials plus earlier materials to fill those gaps. But again, the materials very seldom drives the success. Any other questions we have?

**AUDIENCE MEMBER:** You were talking about getting the right teacher. So I'm a special education teacher and I work with several different regular ed teachers. How do you get them on board?

**DAN LEVENSON:** Couple ways. The first -- what we have found -- here's how I've thought about it. You know, the question is, is it easier to build a bridge or knock down a wall? A lot of efforts, co-teaching included, I think, is an attempt to build bridges. You know, we're going to work together. And building bridges and working together takes lots and lots of time and mutual respect. And like a bridge, lot of maintenance.

What we have found to be more effective is the knocking down the wall. So if you're going to be -- if you're a special education teacher who is teaching math, I'd like you to be a math teacher who is also a special education teacher. It's like what jersey do you wear? I'm from Boston, so we wear Red Sox jerseys. We've found that creating a cross-departmental team where your allegiance and your training and, you know, you really know what team you belong to on Tuesday afternoon professional development day. If the math teachers are going into room 103 and the special education teachers are going into room 106 and they're meeting with the special education director, we've just signaled to the world we're different teams. And then each of you will talk about why the two groups don't work so well together.

Where it really works, and we've seen this, is where, as a special education teacher, you're going to go to the math department meetings. You're going to be evaluated, at least in part, by the math director. You will absolutely be hired in your next job by both the special education director and the math director. And as you

become part of that team, then I don't actually have to get you to work together because you are together. And yes, it is definitely more difficult for you because somewhere I got to figure out how to get the special ed PD in there, but that's got to come second. And I got to make you part of the math team. And where we're seeing that happens, it just kind of naturally -- you're all together. You're learning together, working together, and that has actually been easier than getting two teams to play well together. Could you see working that way?

**AUDIENCE MEMBER:** Yeah, it's difficult for me because I teach seventh through 12<sup>th</sup> grade, every subject. [inaudible].

**NATE LEVENSON:** Absolutely. Great. Other questions? Thoughts if not questions? Which -- I'm curious, any brave souls, which parts of what I shared today either resonated with you or struck you the wrong way? Anybody want to offer up a thought? Okay, I won't put anybody on the spot. And I think in a miracle, we will end just a few minutes early. I want to thank you very, very much for your time. Today, I hope you found this helpful. I'll be hanging around for a few minutes afterward if you'd like to ask any questions as well. Again, thanks so much.