>> I can't tell you how relieved I am to be in this room and not in Aztec because I can just see, you know, that huge room and the smattering of people spread out all over, so ... It's good to be here. I appreciate the opportunity. And Michael, thank you for the introduction. And I hope that, you know, what we can do in the next couple hours is to go through some issues that I obviously think are critically important. And I'm going to make the case to you that they are in fact essential to effective transition for youth -- with disabilities in general.

My work has been -- I would say personally with students with intellectual and developmental disabilities, only that's not really true. We worked with students across disability categories throughout the years. And in fact, more of our work is with kids without disabilities because, you know, it's not just kids with disabilities who lack self-determination. So I'll talk about a little bit of that.

I undoubtedly have far too many slides to get through in the two hours. I know you think two hours is an interminable time and anyone who can't say what he has to say in two hours, probably doesn't have much to say. But I will probably not get through everything in great detail, but I've provided these and a number of sources on a website that you can go to. Here's the address. We'll put this back up at the end as well. I'm told there's actually internet on this, so let's see if I can find my ... Well, anyway. If you go to that website, it's pretty self-explanatory. You click on files. You can download and save them. I've put the PowerPoints, I put a number of the journal articles that I'll be referencing, as well as access to some teacher guides and materials. So no need to take notes; it's all here.

So, you know, we use -- in transition we use this idea of a bridge as a metaphor a lot. We talk about transition as a bridge to the future. And I think we have to ask ourselves, particularly as we look forward into the next decade, A bridge to where? What has this been a bridge to for kids, you know, sort of, historically? And what kind of a bridge do we want to build for the students and the young people for whom we're responsible and with whom we work and care about.

Now when I think of a bridge, the bridge that had the biggest impact on me as -- in growing up -- is this bridge right here. And it's a -- it was a bridge that used to span the Missouri River in Boonville, Missouri. And it went from Boonville to New Franklin. Now just in case you don't know where Boonville, Missouri is -- I mean, I know that most of you do. But it's about 30 miles east -- or sorry, west -- of Columbia. Columbia is right in the center of the state of Missouri. North central Missouri right off of Interstate 70. So you drive from St. Louis to Kansas City; halfway there is Columbia. And just past that is Boonville. And my mother grew -- was born and grew up in Boonville. And my father was born and grew up in New Franklin, which is across the river. And I had cousins -- aunts and uncles and cousins, who ran an old-timey grocery store on the banks of the Missouri River on the New Franklin side of the bridge. By old-timey I mean this has been a store that had been opened for, you know, a 100 years kind-of-thing and they had never changed their model. So they -- instead of having, you know, only one of this kind of item and one of this, they had one of everything. And if they didn't -- if you didn't see it, it was up in the attic somewhere.

So and when I was a kid, we would go visit my maternal grandparents in Boonville. And usually we would walk from Boonville over to my cousin's grocery store. And the reward for that was that I would get a grape Nehi, which, you know, was a treat. I didn't get grape Nehis most of the time. And so -- they had grape Nehi up here, right? I mean --

>> Yes.

>> You know? I realized that when I talk about grape Nehis and I'm in Spain, they don't have any clue what you're talking about. So I realize you have to -- you know, they -- like regional spec. [INAUDIBLE]

So I would walk across this bridge, which by the way was actually destroyed in the flooding in the Missouri Rivers in 1993, as was my cousin's store. They had to move up the highway some from there. So this structure no longer exists. But the walk across this bridge was not without some amount of concern. Because as you can see, this is one of these bridges that instead of having the concrete road, they laid these steel strips -- I don't know what their technical term for them are. And you would -- as you -- and the walkway was on the other side, and it had the same thing. So you looked down, as you walked across this, into the muddy rivers -- the muddy waters of the Missouri River swirling around the big, you know, buttresses, that word is. It was about a 70-foot drop down there. My father had told me stories of having pulled out 10-foot catfishes -- catfish -- from the river. And I think he was exaggerating, but they do still pull some big catfish from the Missouri. And so you know, I would look down and my hands would begin to sweat. My palms would begin to sweat. And quite honestly, just looking at it right now makes my palms sweat just a little bit. You know? And so I would just -- I would grab my mom's hand and I would look on the far shore and not look down. Until I was too old to hold my mom's hand, and then I would walk across. But, you know, and just completely irrelevant to the story, but they actually laid the grid the wrong way here. Those are supposed to go this way. So if you drove across this river, your tires -- the grooves in your tires got into this and it was sort of like being on a rollercoaster. So all sorts of fun.

Ruth Sienkiewicz-Mercer, who was a disability advocate, wrote about her experiences and her move from an institution into the community. And this is what she said. She said, "I had never had a place of my own. As a result I had never worried about buying groceries and planning meals, paying the random phone bill, balancing a checkbook, making appointments, figuring out how to keep the appointments. I mean all the things adults just do. But starting out in society at the age of 28, I found those everyday tasks confusing, wonderful, and frightening."

And you know, I've come to think that's as good a definition of transition as any of those we forwarded. Because you and I know that the transition from childhood and adolescence into young adulthood is wonderful. All sorts of exciting things lay ahead. It's confusing as all get-out. And it's also pretty frightening. I mean, none of us really have all the skills that we need to be able to make this transition. So this transition that these young people that we support are making is -- it's confusing, it's wonderful, and it's frightening. And I think that what we have to be sure, we have to be absolutely sure, that what we're providing in building a bridge to the future, a bridge that provides that transition, that it should be a bridge to something really interesting. Something really exciting. Something worth all the fear and anxiety and confusion that is embodied in crossing it.

All of you will of course recognize the Golden Gate Bridge. And we all know -- my son is a doc student at Berkley, and so I've had the opportunity over the last several years to spend more time in the Bay area. You know, San Francisco and the Bay area. That's a wonderful place to be. It's just -- there are lots and lots of exciting and wonderful things to be doing. And when you cross that bridge from Sausalito -- actually this is looking out to Sausalito, I suspect. When you cross it from Sausalito into San Francisco, you know you're in for a good time. There are lots of things to do. It's going to be exciting. It's going to be interesting.

But too often I would argue the bridge that young people cross lead them to nowhere. Now this is -- if you Google "a bridge to nowhere" and you put that in, you know, quotation marks, there's a surprising number of bridges in this world that lead to nowhere. This one happens to be in Norway and I thought it was sort of a striking thing. There was one -- I lived in Dallas for a number of years and I was flying one time into New Orleans, into Louis Armstrong Airport. And I was looking down. And you cross -- you fly over the Mississippi, into which the Missouri dumps in St. Louis. And of course there are a lot of bridges crossing over, but there's one bridge -- I don't know if it's still there but it was there, you know, a decade or more ago. But you cross over the bridge. The bridge is complete, but you end up in a roundabout that you just go around it and you come back onto the bridge. You know?

You know, as we look at the opportunities -- we all know the data. We all know that from the mid-80s on, we are making progress. We need to celebrate that progress. But the outcomes -- employment-related, community-related, whatever you want to look at -- relationship, friendship-related, whatever outcome we look at, it's obvious we still have a ways to go. Right? For far too many kids, that bridge is a bridge to nowhere.

We just came through the Super Bowl and I didn't think there were that many good commercials this year. I don't know, maybe I wasn't paying very close attention, but I thought it was sort of a down year for commercials. But my -- the Super Bowl commercial that I remember the most was the one that ran a number of years ago now. And it was for the then brand new idea of an internet-based job search. I think this was a Monster.com commercial. And they had black and white images of children who stood there and said, "When I grow up, I want to file all day." "When I grow up, I want to be replaced on a whim." "I want to be unappreciated." "I want to be paid less for doing the same job." And the point of the commercial was that, of course, people deserve better than bad jobs where you do boring things and you're not appreciated and you're underpaid. And that Monster.com had the road to get that exciting and that wonderful job. But what I thought about was the students that I had taught as a public school teacher, and then the students I have interacted with for years and years in the research we do and the intervention studies that we work. And when I listen to them, what I hear them say is that they want jobs that are interesting. And that pay them well enough to go to San Francisco and do interesting things. And that are challenging and there's -- different every day. They want good jobs. They want the same thing that we want. And yet ... and yet we know that far too many of them end up in jobs that are better described as -- with these kinds of things. So we have to ask ourselves, "A bridge to where?" A bridge to where. And of course we want to build that bridge that will lead kids to exciting futures. To having them achieve more than anyone expected.

So how do we do that? Well that's where -- that's what we're going to spend the next three hours talking about. I know, I know. Twelve-fifteen you've got lunch. So how do we do that? And I'm going to argue that at the most fundamental level, the very most fundamental level, is that we completely abandon and change how we think about disability. Because I would argue if we hang on to ways we've understood disability historically and continue to understand it today, we continue to proliferate low expectations and, in essence, build bridges to nowhere.

So let me talk a minute about that. So historically, disability has been understood within a model that was an extension of the medical model and it conceived health as an interiorized state. You were healthy or not; it was a personal thing that you had. And that problems with health were individual pathologies. So disability was understood as a problem with the person. So disability is understood as a

characteristic of the person. The person is seen as broken, diseased, pathological, atypical, abhorrent. As somehow apart from us, and not a part of us. They're seen as outside the norm. Now then. Is it really any surprise to any of us that when we think about disability in that manner, that what happens is that people with disabilities become associated with negative consequences? They're held to low expectations. They're subject to discrimination. They're segregated. And you know, in our field, in the field of special education, particularly with the adoption of this notion of mental age and intelligence testing, you know, we began to see people with disabilities infantilized and viewed as eternal children. As not really able to attain adulthood. And what is it in our society that marks you as an adult? Well, first of all you reach -- you attain the age of majority in a given state. I'm going to assume it's 18 in the state of Pennsylvania, is that right?

>> It's 21.

>> Twenty-one? Oh, you're one of those states! So at the age of 21 here you can enter into contracts, you can do all the things an adult could do. Your parents are no longer responsible when you run up the credit card bill, you know, yadda yadda yadda. Right? We all know 35-year-olds who are still adolescents, don't we?

You know, I'll -- I suspect that quoting two commercials in the first 10 minutes of my talk will lead you to question how I prepared for this. But, you know, commercials are successful because they communicate things that all people feel about things, and in short, pithy ways. And a number of years ago, there was a whole series of commercials for Holiday Inn. And no, I'm not in a Holiday Inn, so don't tell the people who run the Hershey Lodge. But -- and these commercials had a 30-something-year-old man named Mark. And he was living at home with his parents and a dog and his grandmother. And every one of these commercials had him wanting some -- demanding some perk that he would get if he were staying at a Holiday Inn. You know, frequent flyer miles and free breakfast and those kinds of things. And every one of them ends with the tagline, one of the parents or the grandmother saying, you know, "What do you think this is? A Holiday Inn?" And these were very successful commercials for Holiday Inn because everyone knew somebody like Mark. Everybody knew somebody who was well past the age of majority, but wasn't really fulfilling the obligations of adulthood in our society. What are those --? And so it's not just that you're old enough; it's that you're doing things that mark you as an adult. And what are those kinds of things?

>> Getting a job.

>> Getting a job. And real jobs, right? Not just these jobs that pay minimum wage, right? There's a stigma associated with that. What else?

>> Paying the bills.

>> Paying bills. Taking responsibility for your own life.

>> Having relationships.

>> Having relationships. That's how we -- those are how -- you know, we could come up with a list of that and you would actually flesh out the outline for the rest of my conversation today.

When we deny people the opportunity to live self-determined lives, to take responsibility for, to take control, we're fundamentally denying them the opportunity to live as adults in our society. And, you

know, I mean, you know, I've written on these and our work around people with intellectual disabilities. This is something that is particularly relevant. But, you know, I've heard people -- adults with learning disabilities, I've heard adults with autism spectrum disorders, and I've heard adults with ADHD all talk about the same kinds of things. People had low expectations for them. They didn't think that they would achieve. They held -- they didn't assume that they would be able to work and hold meaningful employment. This is something that comes along in our society with being viewed as having a disability.

Now in the '70s and, you know, a long time ago now, that these things began to change. And I'm not going to read all of this, but in the early '80s there was -- the World Health Organization introduced something called the International Classification of Impairments, Disabilities, and Handicaps. And what that did was begin to recognize what we all knew anyway. That disability isn't best understood as an internalized pathology. It's best understood in the context of what people do, the kinds of environments and the supports that are put in place, what kind of health-related issues are happening. They began to talk about a disability as something that wasn't just resident within a person, but in fact was part of interactions between people and their environments and the supports that are provided to them.

And then later on in 2001, there was an upgrade on this that was -- that's acronym is the ICF, the International Classification of Functioning, Health, and Disability. And it basically took the argument that was forwarded in 1980 and said, "You know, it's no longer useful to understand disability as an individual pathology." Yes, people have impairments to structures, to body structures, to neuro systems, that result in activity restrictions and may result in participation limitations. Those are the realities. But if we stop right there and we say, "Yup! That's the story; that's all she wrote," we miss the point that there's a lot of things we can do both to support people to enhance personal capacity, as well as to change the context and the environment that make those limitations less relevant.

Historically -- my poor attempts at providing a graphic to make this simpler. Historically we have viewed disability as a characteristic of the person. As a problem within the person. The person was broken. It was a pathology. And we developed in our field a myriad of tools that enables us to assess exactly how broken people are. We have a field that is predicated on measuring personal incompetence. In order to get what we have to offer, you have to show yourself to be personally incompetent based upon the tools that we have developed.

But what the World Health Organization and more and more across the world -- when I'm around the world, we don't have to talk about these things because they are more aligned with the WHO. It's something that's making headway in the U.S., but we're not as far along as we should be. The World Health Organization says what we need to do is we need to think about what is it that people do well? What is there competence? What are they capable of? And then what are the demands of the environment? And disability resides only within the gap between personal capacity and the demands of the environment. And the more that we can do things that close that gap, the more that we can provide accommodations and modifications to the environment, the more that we can provide supports that enable people to be successful, the more we can close that gap so that a person is able to hold a job, a meaningful job that pays well, is able to live with supports in their communities. The limitation, the impairment that resulted in activity limitations and participation restrictions, that doesn't go away. It's still there. It just doesn't matter anymore. You know, we put curb cuts in our society so people who use

chairs can get around. And all of a sudden it didn't really matter whether you used a chair or whether you walked. You could still achieve the same kinds of things.

Now I want to talk a minute about transition and this. You know, in the '80s, which is a depressingly long time ago for me. You know, it's just -- it's really discouraging. I spend a part of my life teaching 18-year-olds who think that the 1980s, you know, might as well have been the 1920s, right? Anything 1900 as a matter of fact. So -- but in the '80s there were -- we began to look at, you know, moving from sort of mainstreaming models where we, you know, the focus was just getting on kids into the special classes, you know, into the arts and the music. And to talk about it inclusive settings or whatever else.

And Allen Gartner and Dorothy Lipsky wrote a book looking at ways, strategies, for inclusive practices for adolescents in transition. And they had an analogy there that I -- that has stuck with me. And I think is exactly the kind of scenario that plays out when we begin to change how we understand disability. That is, they said, "If we did college the same way that we do transition in most districts across the country, here's what we would do." So you're ready to go to college. You choose the college of your heart's desire. You always wanted to go to Penn State. You always wanted to go to PIT. You've always -- you know, all these places. To begin your college matriculation, we would give you a whole battery of assessments and we would determine the 10 things that you did the very worst. What 10 things do you suck at the most? Right? And then we would spend four years making you a little bit better at those things that you do absolutely the worst.

Now then, I would argue that in far too many places -- and I'm not impugning here, I suggest -- I suspect that you all are doing -- the fact that you're here, probably means that you're not doing these kinds of things. But there are lots of places I can go to in the U.S. and find these kinds of things. You know, where transition continues down this deficits path where we identify what you don't or do well. But if we did transition like we do college, here's what it would look like. It would -- we would come in and we would have a -- we would identify the 10 things you're the greatest at. You're the very best at doing these 10 things. And then we would identify 10 things you love to do. The things that you really love to do. And then somewhere on those two lists, I'm betting there's going to be one or two things that overlap. There's going to be something on that "I'm really good at" list and something on that "I love to do" list that you're going to spend the next four years getting a lot better at. That's what these kinds of models say. That we begin to determine what it is that young people do well. What are they good at, what do they love, what are they interested in?

And let's spend -- first of all, let's spend the transition years getting them better at that stuff. And then let's spend a lot of time, and I'll talk a minute about supports and how we do this. But, you know, what can we do to change the environment that enable young people to be successful? What can --? What kind of supports can we add in? But, you know, I'm going to -- I'll make the case and then I'll drop it. Until we as a society change how we understand disability, we're not going to make the progress that you and I want to make. I'm convinced that's the truth. If we continue to look at disability as an individual pathology, even if we claim to have abandoned the medical model ... you know, listen to what people say about disability. When you read it in the newspaper, when you listen to others in schools talk about it, ask yourself, "How are they understanding this?" And how in the world do they think that Johnny or, you know -- has strengths. I'm --

I always do this, but a story: I was a psychologist at a state institution for people with intellectual disability in the late 1980s. And one of the units that I was responsible for was -- there lived a number

of men who had really extensive support needs. You know, multiple disability issues. Physical, cognitive, whatever else. And, you know, like everyone else, you know, there was an annual habilitation planning meeting which, you know, the lives of these young people were discussed. And I got into this by the way. It was under a class action lawsuit and we were able to shut the place down. So that was part of my motivation, to work in an environment that was so difficult. So anyways. So we're at this meeting, and even then -- this is 1989 -- the caseworker, usually a social worker, who was in charge of organizing and running the meeting, they had to start with, "What does the student do well?" These are all on all your IEP forms, right? There's a box for what students do well. People are really good at filling that out, aren't they? They really know all those strengths for students, right? You know? But in this case, the social worker who was doing this -- who was not a bad person; not an evil person -- we started the meeting and she said, "This is --" I don't remember the young man's name. You know, Johnny. "And for Johnny's strengths, he has ..." And then she paused. And I knew with the pause that things weren't going to go well. And she says, "He has a prepaid burial plan." That is the best she could do. That is the best she could do. Because she couldn't see past the pathology. She couldn't see that this young man smiled at some things and didn't smile at other things. Too many people in our schools can't see beyond prepaid burial plan kinds of things. We have got to be the people that change that. And it begins with changing how we talk about and how we think about disability.

What are the implications of this? Well, first of all this is a strengths-based process. You know, when I first started working in areas around issues of self-determination, I can remember very clearly we were out in schools and I had a focus group of adolescents with intellectual disability. And I was getting them to talk about some of these things. And they could yammer on for days and days about what they didn't do well. But when I said what do you do well, there was sort of these, "Uh, eh, oh." And there was, "Oh, well ..." You know? And then they began to talk about maybe what they wanted to do well. "Well, you know, I've been --" This was pre-LeBron, but, you know, it was, "I can shoot a basket as well as LeBron." And those kinds of things. It was strikingly evident that these young people had heard people talk about what they couldn't do all their lives and had never heard people -- or rarely heard people talk about what they could do. These are strengths-based. And when we lead with strengths -- "What do you do well?" "What do you like?" "What do you appreciate?" -- we change the game. And I think part of this is changing the game so that we can change the atmosphere around transition and transition planning. It's a focus on environment and context and not on fixing the person. Now I will say we're pretty good at that already. We've been doing that for a number of years. You know, I'll give evidence in a minute.

But, you know, we have to take it to the next step. We have to go beyond what we're currently doing. And again I'll give you some suggestions for this. And then it emphasizes supports and not programs. You know, and this is a subtle thing. I'm going to talk about it in a minute, what a support is. But, you know, we as an enterprise create programs that try to programatize innovation, right? And so we talk about transition programs or we talk about this program or that program. An inclusion program. Well, first of all there's almost always people excluded from these programs. You know? A very visible employment support program that's around the U.S. today excludes a lot of young people from it. And I'm not going to name names or anything. But you know, "all" doesn't mean "all." Some -- "all" means "some" in many of these cases. We create programs and then these programs exist and serve to further perpetuate limitations.

We need to -- you know, we're going to -- you're going to hear an awful lot in the next 10 -- a decade or more -- about personalized learning. You probably already have heard about personalized learning at the broader education level, not individualized learning that -- you know, individualized instruction like we've talked about. But personalized learning. How do we enable young people to learn in ways that best reflect their capacities?

So what are supports? You know, I said, we know how to do this. And we do know how to do this. I mean, supported employment -- I was a classroom teacher with students with -- with adolescents with quite extensive support needs in the mid-1980s. We were sitting around in the job vocational part of the, you know, this self-contained setting, as it would have been in 1984. And we were training kids to sort by, you know, size, colors, shape. To stuff envelopes. To do all the things to get ready to get on the waiting list to get into the sheltered workshop, right? My God was I bored. You know? I was. But it was what we knew how to do, right? It was what we thought was best and what all kids ...

And then I'd go to a workshop and I'd see Paul Wehman out there talking about this thing called supported employment. And he shows these films of these young people who look just like the young people that I'm working with. And he says, "We can get them real jobs." And we do this by going back to that model. We modify what's in the context. We, you know, we provide supports. We teach kids all we can. We have high expectations. And of course, I don't know what you -- I don't know how you have any other reaction to that then to say, "Eh, this is what I've got to do." You know?

So we went back and I choked every washer and, you know, everything else. And we began working on community-based instruction. We began doing those things that might prepare young people for real jobs.

We know how to do this. There is -- and we've, you know, we've gone from supportive employment to self-employment to customized employment. Customized employment pulls together all these trends and, you know, in looking at how we build, sort of, self-directed and self-determined plans. All these things. We know how to get people real jobs. And yet ... And yet ...

These are data from 2010; nothing has changed much in the last five or six years, I assure you. So here are -- this is the total number of people in employment-related services in our country. So these are people with -- receiving some form of disability-related employment supports. You can see that continues to go up. And this bar is people in integrated employment, mainly supported employment. What would you say about that bar? This is 1988. This is 2010. We had a brief climb when these things were introduced and brand new. We said, "Wow!" And then what happened? Nothing. Nothing has happened. We're not making any progress in this. Does it matter? Yes, it matters.

Here is wages -- weekly wages in 2010 dollars. That's the general population up there. That's other disabilities. This is people with intellectual disability who are in the segregated employment setting. This stuff matters, and we're not making the progress we need to make.

There are far too many people -- I'm involved right now in what I think is one of the more exciting things that I've been involved with. The state of Rhode Island had the Department of Justice come in and say, "You're in violation of the Americans with Disabilities Act. You have violated the Olmstead clause." Olmstead, if you recall, is the ruling that said, "Unnecessary segregation is discriminatory." The Department of Justice came into the state of Rhode Island and saw that 5% of students with intellectual

disability were transitioning from public school to integrated, meaningful employment. Ninety-five percent were going over a bridge to nowhere. They were going to sheltered workshops, work activity centers, or they were sitting at home. Ninety-five percent. And they said, "That's a violation of the ADA, and you have 10 years to correct it." So we -- over the past year, we've trained every teacher working with students in the state of Rhode Island, every teacher working with kids with intellectual disability in the state of Rhode Island, on these issues around workforce -- 21st century workforce skills, these issues of self-determination. And then we, through other people, have worked with parents and families to set expectations with parents and families that their son or daughter can get employment. Oregon just had exactly the same thing happen. And instead of waiting on the Department of Justice to come down on them where they would be under the pendulum of a federal entity, they voluntarily agreed to phase out all sheltered workshops in the next, you know, 10 ... I don't know. You know. We're heading there. But, you know, we're still not there.

So, you know, what are supports? Supports are simply anything that promote the interests and causes of people with or without disabilities that enable these folks to access opportunities, information, or relationships inherent within integrated work and living and school and other environments and that result in enhanced interdependence, productivity, community inclusion, life satisfaction, and human functioning. Supports are anything that enable people who are not able to do so without some form of support, to live more independently, productively, in integrated settings. I mean, for many of us, our smartphones have become important supports for us. We'll talk about the world of technology in this in a moment. It's anything. It's friends, it's family, it's the Public Transit System. It's, you know, it's money, it's education. It's anything that enables young people to do that. And by looking at a paradigm, a supports paradigm, you know, what we ask ourselves is, "What will it take? What can we do to enable young people to achieve this goal and to do what they want to do?"

We've been involved with the development of something called the Supports Intensity Scale. Has it been used in Pennsylvania at the adult services level? And are people going to throw things at me because of that? It got adopted and it's being used in state DD systems to determine who gets how much money. And whenever you use an instrument to determine who gets how much money, it becomes a political thing. But here's what we intended with the Supports Intensity Scale. All the other things we have at our disposal tend to be measures of personal incompetence. "If you don't do well on an IQ test, it's a measure of personal ..." "If you don't do well on adaptive behavior ..." "If you don't do well on these things ..."

So we wanted to change that paradigm and say not measure what it is that, you know, these issues of personal competence or lack thereof, but we wanted to look at what kind -- what type, intensity, and duration of supports. What is the intensity of the supports a person needs to be successful in a given domain? Whether it's work, whether it's independent living, whether it's school, whether it's relationships, whatever it is. The Supports Intensity Scale is a measure. It takes a look at what level -- what type, duration, and intensity of support does the person need to be successful. And what we have found as it's been rolled out is that -- I think the most important thing about that is that it forces people -- you know, with particularly employment. You know, so resonate with this group. That, you know, as people who are being interviewed talk about this and talk about it they say, "Okay, so what, you know, type, intensity, and duration of supports is it going to take for somebody to be competitively employed?" And, you know, the all-too-often response is, "Well, he can't work. He's never worked." You know? "That's not something he can do." And the response is, "That's not an answer! You can't

give that answer! The question is, 'What type, intensity, and duration of supports would it take for this young person to be successful in this?'"

And then they have to step back and they say, "Well, it'll take a lot." "Oh, good. Well, let's get talking about what that 'a lot' is, okay? Let's talk about -- let's presume that this young person can work." And so, you know, it's changing this "Well, he can't do that," to, "What is it that we can put into place?" And if we're thinking like that, then I'm going to argue we're doing everything we can and we're going to have a lot of success. You know, nothing is the be-all and end-all. There are still going to be kids who have -- who are -- for a variety of reasons, who are not successful. But ...

So, you know, these supports -- not a continuum so much as an array. We just -- you know, think of the people you know who have lived rich, full lives with a disability. It's because they've got family around them who helped them build that. They've got friends who do that. They've been -- you know, they've got co-workers. They access ... You know, it begins with the person in the middle as the primary support. And then it radiates to friends, family, non-paid supports, the generic services. And only at that last level, those specialized services like VR and DD services and whatever, is out there. I don't know anyone who's built a rich, full life starting at this level and going in. It doesn't happen. There are never enough resources. Never enough people. Never enough time. It just doesn't happen. It happens when we build a personal capacity of people to live full, self-determined lives. To talk about what they do well, to talk about what they're interested -- to communicate that in any way possible. When friends and families and neighbors and community members are -- become -- buy into that and they begin to see the young person as a person and not as a pathology.

Implications for us in the education of students with disabilities. Well, I would argue that A) they're huge and B) we're sort of on our way there.

So access to the general education and third-generation inclusive practices. We've talked about the fact that we're entering a third-generation of inclusive practices in that all of a sudden for the first time in my life, in my career, we're talking about what a student learns in the context of the general education setting. And not just where the student is educated. So, but, you know, these issues of access to the general education curriculum, what are they saying? They're saying that students should receive the same iPhone instruction that all students receive. You know? We're talking about Tier 1 interventions, right? All kids deserve high-quality instruction on things that matter. If it's determined that it's important for kid without disabilities to learn, you can bet it's important for kids with disabilities to learn, right? I mean, is there anything --? We talk about functional skills. You know what is the most functional skill I can think of? Learning to read. Right? I mean, you talk about job and employment-related outcomes. So when people don't try to teach you how to read, you know, when they've given up on you early on, then, you know, you're not ... So, issues of access to general -- you know, how do we achieve some of these? Universal Design for Learning. Universal Design for Learning is changing how we present the information and how students respond to the information, right?

If you are in a 6th grade language arts classroom and every other student is reading "Bud, Not Buddy" or "Road to Terabithia" or one of these young adult, you know, what is it? The Caldecott Award winning? These are good novels. They're interesting stories, but really they're about how we live in a diverse society. They're about how you function as an adult in our world. You know? How do you engage with elders? How do people of different, you know, cultures and ethnicities and races interact? And how -- that's what you learn from these kinds of things. If you don't read well or at all, and you're in the corner

reading something else, you're not only missing out on a good novel, you're missing out on what it takes to live in our society. But you know what? We can digitize that. And we can convert that to speech. And we can change the font size and the background color. I have seen next generation eBooks -- I'll talk to you in a minute again about technology. I have seen next generation eBooks where you can toggle just like you do on your web browser. You can toggle and select not only the language you want it represented in. And then of course we can hyperlink anything and link that to a video or, you know, an audio file. And it doesn't matter what language. We can toggle it between languages. I've seen them where you can toggle text to create avatars that sign. So if you need, you know, an avatar. And it's just how you build the XML file that underlies that. It's -- there's nothing magic about that. We have the know-how. And all of a sudden if you don't read well, you're engaged in -- with the text, you're learning the same things as everyone else. And by the way, you're also probably learning to read better through these kinds of things.

There's a commercially-available program called Thinking Reader. Any of you had any interaction with Thinking Reader? Scholastic does it. It's an offshoot of Scholastic. They take these Caldecott winning books and they create digital versions of them. And you can -- they actually have, you know, things that also support reading in terms of word -- predicting the story, identifying main characters ... And they do that so if a student can type in the answer, they can do that. If a student can't type, they can record their voice or they can select it from two or more options. There are all sorts of scaffolding. It's not truly universally designed. But it's pretty close. So -- and all that is about changing the context. In this case the context is just the curriculum, right? We've not done anything to change the student. We've changed the context.

Supported employment. Exactly the same thing. Give kids skills and change the context. Change job carving, job development, job sharing. We know how to do these things. You know? Put in place some sort of support thing. You know, whatever else.

Multi-tiered systems of supports. What are they saying? What is multi-tiered systems of supports? It's, sort of ... Is that happening in Pennsylvania these days? I mean, it is everywhere else so I presumed it was. We sort of moved to some combination of PBS and RTI where we're talking about academic and behavioral outcomes. And the idea is that all kids get high-quality instruction at Tier 1. And then what happens? For students who aren't doing as well, students who are having difficulty, what changes is the intensity or the type of the intervention. Right? We introduce -- either we do what we're doing more -- you know, so we change the dosage. You know? We do something different. But what changes is our interaction, our intervention, you know, with kids. I actually hope we get away from this notion of tiered because I'm really afraid that we're going to -- you know, under the pathology model, which way does that head? "Oh, he's a Tier 2 kid." "He's a Tier 3 kid." Tiers are not kids. But I've heard it too often. I think we just jack up instruction as much as we need to make sure kids -- and I don't care whether it's Tier 1, Tier 2, Tier 535. You know? We just need to give kids the kinds -- the intensity, the instruction that they need. We don't really need the tiers. And I think we'll eventually move away from tiers. But that's all about changing instruction. It's not about -- you know, it's consistent with these kinds of models.

Technology and self-determination. We're going -- you know, promoting and enhancing self-determination is at the heart of these 21st century work skills and success and changing how this works. So I'm going to talk more about each of these.

So building the bridge. Aren't you impressed that I found a picture of the Golden Gate Bridge being ...? So how do we do this? So technology. Let's take a little tour of how much technology has changed since 2000, shall we? So this is from the Coleman Institute on Cognitive Disabilities, which does really nice work around cognitively-accessible technology. If you're interested in knowing more about cognitively-accessible technology, Coleman Institute on Cognitive Disabilities, the University of Colorado.

So, you know, e-commerce didn't exist until basically 2000. So all of you who bought your socks on Amazon this morning, you know, you couldn't have done that just 16 short years ago. I mean, it seems like -- I'm getting to where I just buy everything online. You know? And Amazon now has a two-hour delivery. Have you guys paid attention to that? You can now -- if you're something short for your recipe, you can Amazon and they'll deliver it within two hours. You know, we didn't have smart searches. Smartphones emerged in early 2000, but not really into about 2005 were they readily available. In March of 2010, nobody had an iPad because they were introduced in April of 2010. Now there are more than 200 million units -- iPad units out there. Does it seem like we've had iPads and now Tablets forever? I mean, it does. The Cloud computing, kind of, began to emerge. App stores didn't emerge into that. You know, the speed at which these things are changing, are emerging, are, you know, coming and then going away -- we're living in this era where this stuff is going away. But what are some are the things that are down the pike?

So, you know, Cloud-based technologies. So if you're somebody who needs some form of personalization to learn more effectively -- you need large font, you need, you know, to reverse so it's white letters and black background, you need, you know, you need hyperlinking -- you can -- you know, we've got the tools and everything to set that up. And we can set that up on your computer. But if you're at the computer at work that you need to access and, you know, you don't have that typically, you don't have your supports anymore. But what's being built out now -- the U.S. Department of Ed and the Office of Special Education Programs just invested 25 million dollars to the Trace Center, which is moving to the University of Maryland, to build this out. And that is those personalization features will reside in the Cloud. And you will be able to access them from any device you are anywhere. Is that going to make it easier to provide workplace supports for young people? And you know what? The devices are not going to matter as much anymore. Once all that moves there, what happens is we switch a focus on which device, and what becomes important are what's up in the Cloud and how to access that. So devices become, sort of -- you know, you can use any number of models. Printers are simply a vehicle to sell you printer ink, right? That's where all the money is. Razor blade -- the razors are simply a vehicle to sell you the blade. Right? That's what this model is. That's where we're headed. We're headed to where you're going to get these devices, but they're going to be inexpensive. They're going to be -- you know, I'm not even going to predict what they're going to look like because, you know, five years from now everything will change. So for people with disabilities it's going to be a huge groundbreaking kind of thing.

Three-D printing. Anyone seen 3-D printing yet? Is that cool or what? Do you understand it? Because if you do, I want you to come up and explain to people what this is. Three-D printing. You know, NASA is developing rocket parts using 3-D printing. It is expected that within the next 50 years, we will have the availability of 3-D printed organs. I mean ... guts. And organ shortages and organ donation and all that stuff will not be an issue. Will not be a problem. Now what is it about 3-D printing that's really exciting for people with disabilities? I mean, anytime you have a very small market and you need a highly-specialized thing, the cost of that thing goes way, way high, right? I mean, you know, I remember in the

classroom sitting and leafing through OT and PT catalogs to try to figure out how, you know -- and being surprised how much button hooks cost if you're buying them as a medical, durable good. Right? The point of 3-D printing is it's personalized. It can be done at a small-scale and it can be at an inexpensive rate.

And then the Internet of Things. How many of you have heard of the Internet of Things or the Internet of Everything? You're going to hear more and more about this. It's the idea -- so, you know, and we're getting there -- it's the idea that everything you interact is somehow hooked up into the web. So we're talking about wearable computers. So that your clothes have semi-conductors. Your glasses, your ... you know, what's the latest wearable? I mean, Google Glasses came and sort of fizzled out because everyone using them were geeks. But --

>> Apple Watch.

>> The Apple Watch! There you go. The new watch. You know, this is just going to go more and more. Your refrigerator. You know, all the devices that you're buying -- your dishwasher, your garage door opener, the car -- everything about your car -- these are all now computers, right? It's estimated that right now there are about 10 billion things hooked up to the internet. That would include your smartphone, your computer, your Google Glasses, your car -- certain aspects of your car. It's estimated in 2020, that's only four years from now, there will be 50 billion things hooked into the internet. And what are those things? Why, everything! So that you no longer have to press a button to get your garage door to open when you're coming home and it's really cold. Is it cold here in Pennsylvania? And because your garage door senses, it sees your computer -- your automobile coming -- it opens up. It recognizes, you know -- one of the big hurdles to this right now is just security. So the solution to security is that you have to have multiple means of confirming that this is you and not somebody else. Somebody can't use one thing to fool the computer. So it becomes important when we're talking about access to our health records, right? We don't want somebody posing as us and getting access to all our health records. But if we have multiple means of establishing an identity -- through which we will have -- then those securities become less and less of an issue. Of course, that automobile that you're driving into the garage, you're not really driving, right? It's an automated vehicle. Autonomous vehicle. What's the number one thing you hear from disability advocates around the United States in terms of barriers to employment? Oh, gosh. Maybe this autonomous vehicle thing might be something that makes that irrelevant. You know?

I think what we -- you know, my points here are simply that we're at an era when technology is all of a sudden going to make life easier and better for all of us. This was a trial run at -- and I'm not sure whether it's still in place, but it was the bus system in Boulder, Colorado. This is your basic fixed transit system. People who needed some additional support, this might be an elderly person, this might be somebody with a dementia kind of thing, somebody with intellectual disabilities, somebody, you know, who's just confused by directions. You know? A lot of us can benefit from these kinds of things right? They're using a handheld device, a smartphone. What does that smartphone have? It has capacity telephony so you can call, you know, voice contact. It's got GPS data. It's got, you know, the capacity to transmit pictures and video. In Boulder, Colorado, there is a local area network that goes out across Boulder that one or two people are at, kind of, the brains. At the computer set up there. Each bus is equipped with smart-vehicle technology that is able to take in GPS telemetry data, has -- is looked to -- linked to the mobile wireless local area network.

So here's what happens. You're waiting on a bus. And so there's -- first of all, the system knows that you're waiting on this bus. Because you're there, it's monitoring that, you're using this device. The bus driver knows that there is somebody there that's using the device. The local area network administrators know that you're there. Your device is -- this is just using GPS data that says, you know -- you know, one of the things about riding fixed transit systems is that they're confusing. Because 12 busses come before your bus comes, right? And so, you know, so you -- so this thing says, "Nope. This is not your bus." "Nope. This is not your bus." "Nope, this is not your bus." Because you've indicated which bus you want. When your bus comes up, it says, "Oh. This is your bus." Your bus driver knows and is looking for you to get on. Now if anything goes wrong, your intermediate telephone, video, audio or whatever contact with the folks back at the local area internet center, they can say, "Well, okay. Well, hold your phone. Pan it around. Let me see what you're standing by. Oh, okay. See that tree over there? There is a bus stop there. Go stand there and then wait for this bus ..." And you put that in your system and whatever else. Not completely foolproof but it goes a long way toward being foolproof, doesn't it? And nothing about this is Star Wars. Nothing about this -- this is all the stuff that we have at our capacity to do today. We have -- you know, there are going to be more and more ways that we're going to be able.

Digital talking books are going to be big in education. The publishers haven't figured out how to do this well. We as special educators have got to go tell them that just because they've created a PDF that somebody can look at it online, that doesn't make it accessible and it doesn't -- it's not universal design, you know? You know, we don't know where we're going from smartphones, iPads, tablets, PCs. I mean, I don't know what's next. I do know that whatever's next is going to be in the Cloud. That's clear. And, you know, as the Internet of Everything happens, I think we're getting to a point where we can put in place the supports to enable people to live, learn, work, and play with everyone else where they want. I mean, it's an exciting time. It's changing -- you know, it's changing -- I've worked with kids with intellectual disabilities all of my life. We've -- you know, most kids -- we talked about plateauing in reading or math or science. And we just quit. You know, we would do flash cards and survival words kinds of things. We can now present content in ways that every reason to believe that young people who previously had not been able to acquire reading, math, and science skills will be in fact able to acquire a lot more of those skills. I don't have -- there's a whole 'nother section on that at some point.

But if you're interested, at the Coleman Institute -- one of the barriers is that technology tends to be too complicated for people to use. Technology that could enable people to be successful tends not to be accessible. And there are a lot of reasons. So if you're interested in this issue of access to technology, I would encourage you to go to the Coleman Institute. There's a Rights of People with Cognitive Disabilities to Technology. This would be -- so it'd include people with TBI, with all sorts of cognitive issues. Because, you know, technology's just -- it's not just a convenience anymore. You want a job in our society? Nine times out of 10 you better be able to go to that website and you'd better be able to fill that out online. Right? That's where you start. That's what they tell you. You call them, they say fill out our form online. If it's not accessible, you're screwed. Right? So we've got to put pressure on. The federal government knows this. But ... So I would --I think you'd find that interesting.

Okay. So technology's got a big part of this. But, you know, what are we going to look at as we look forward? What I think -- this is from Edna Samansky from, like, 1989 or something. But she was right then, and it's right now. We need to be building transition interventions for empowerment. We need to build interventions that are maximally under the control of the student. The student -- we're

enabling the student to do for him or herself as many things as we possibly can. We need to -- those interventions have got to be geared toward facilitating individual independence and autonomy. And they should be in the context of environments in which people are going to live, learn, work, and play. And be able to do that.

You know, if we look at what works in transition, a couple things. I pulled together some data from several sources, the OSEP evidence-based practice initiative, the National Secondary Transition Technical Assistance Center evidenced-based practices initiative, the What Works in Transition Research Synthesis Project. Here's what we have evidence-based for. And they used Paula Kohler's taxonomy, which I'm sure a number of you have run into plenty of times. They look at interventions and things in terms of student development, student focus, planning, inner-agency collaboration, family involvement, program structure. And they looked at evidence as strong, moderate, potential, and low. Here's what we have strong evidence for in terms of student development, teaching functional life skills, teaching purchasing skills, teaching self-advocacy skills, teaching self-determination skills. Moderate evidence for a lot of things including self-management. These are all things -- we have strong evidence that doing this improves transition-related outcomes.

In terms of student-focused planning, again, teaching self-advocacy skills, teaching self-determination related skills.

Involving students in transition planning. We know that these things have impact. I'll come back to this in a moment and talk about a little bit of this after I talk a little bit about what is self-determination.

Here's the NSTTAC evidence-based practices and secondary transition.

These are things that -- and this is 2010 I think, so it's several years old. There's actually some newer stuff out. But in terms of looking at those areas, where do we have -- what reaches the level of evidence-based practice? And if you look at those, it's, you know, involving students in the IEP process. It's something called the Self-Advocacy Strategy. I'll give you information about it. Using the self-directed IEP. I'll give you information about that. A whole list of things in there including self-management, self-determination related skills.

We have good evidence -- and these are what predict success. So evidence of success in the education employment area, independent living. You know, a number of things that we do have shown to be successful including, as we get down to self-advocacy, self-determination related skills.

So we know if we look at 21st century skills, these issues of self-determination, self-advocacy, student involvement, are clearly a part of this. So let me talk a little bit about what this is and why it's important. We've talked about self-determination as being -- talking about volitional action and enabling young people to be the causal agents in their own lives. And I just want to -- I'm going to skip over a number of things. I want to make this case to you. So we tend to think -- people tend to think about self-determination as doing things all on your own, right? And as, sort of, being independent. But it has nothing to do with that. The notion of determination or determinism comes from the philosophical doctrine of determinism, which means -- which would suggest that actions are caused by events or natural laws that precede or [INAUDIBLE] to it. What self-determination means is self-caused action. People making or causing things to happen in their own lives, based upon their preferences, their interests, their goals. Rather than having things happen to them because somebody else or some

other system or something is causing them to act in certain ways. And, you know, I mean, I'm -- you know, we do wonderful things in our field, but unfortunately far too often, we tend to be a dependency-creating system. We don't teach kids to do things for themselves that they need to. And part of it is just the instructional technologies we use, and part of it is we just don't think about it enough. And I'll come back to that later.

So self-determination or self-determinism is simply people making things happen in their own lives. And it has nothing to do with how much you can do yourself. I mean, we're all self-determined people. And, you know, there's lots of things in your life you want somebody else to do things for you. You're not as good at something or you just don't want to do that again. You know? You know, it's all about making things happen in your own life.

You know, we've known for 20+ years that problem behavior is communicative. Right? I mean, that's something that Durand and colleagues in the mid-80s -- problem behavior is communicative. And what is it that people are communicating when they're engaging in problem behavior often? I mean, there's, you know, nothing's 100%. Often it's, "I don't want to do that with you." "I don't want to do that now." "I don't want to do that here." "I'm not interested in that." Or "I don't want to eat that." It's all about people expressing this issue of personal preference. And, you know, what they've learned is that the best way to get -- to make that happen is to engage in this certain set of behaviors or actions. And what they need to learn and what PBS -- you know, I didn't -- PBS was on that list of interventions. What is PBIS? Is it teaching a kid every skill they need? PBIS is about modifying deficient context. It's about changing contexts, right? Figuring out what it is that's causing the student to act like this, and making that behavior unnecessary and irrelevant. You know? It's about changing the context.

So, you know, it's about causing things to happen in your life. Any student in the world can become more self-determined. I don't even know what it means to be fully self-determined. Most of us are self-determined enough if we have the opportunities to try things out. So it's self- (vs. other-) caused action. It's people acting volitionally. When we talk about volition, volition means acting -- intentional -- I'm sorry, volition is the capability of conscious choice and decision. So my acting volitionally -- conscious means you're thinking about things, right? You're not just -- this isn't hedonism. This isn't just doing it because it feels good in the moment. This is about acting in ways that are in your best interest. And that may mean that you're sitting here listening to me rather than being somewhere warm where you would rather be, or something else. But presumably there's something in this for you, right? You know?

So, you know, it's about acting volitionally. And at the very heart of that is goal-oriented actions. So, you know, we've got to enable young people to be causal agents, to learn to set goals in their lives, to learn to solve problems, to engage problems. You know, in disability this is part impartial with an empowerment movement, a social movement where, you know, people with disabilities talk about what they want is what everyone else has.

We talked about this earlier in terms of adulthood. You know, John Paul Bobey is a man with autism. He says we want the same things. We want dignity, respect, equality. Bob Williams who's now, again, Acting Commissioner of the U.S. Department of Health and Human Services Administration on Intellectual and Development Disabilities said -- in 1989, he said, "We don't -- we aren't meaning people with disabilities don't have to be told what it means to be self-determined. We know it's another word for a life filled with rising expectations, dignity, respect, and opportunities." When you listen to people with disabilities talk about this, you hear these terms: dignity, respect, value. Why is that? Because too

often people with disabilities are treated as if they're not really one of us. As if they're not really valued. Very low expectations. So when people talk about these issues of self-determination, they talk about them as -- in this empowerment. And it's about enabling them to live the same kind of life that you and I have the opportunities to live, is fundamentally what it comes down to.

What do we know about promoting self-determination? I'm going to fly through this. Again, the slides are on there. We know across disability categories that students with disabilities are less self-determined than their non-disabled peers. There is a very strong evidence base to support that. Now then, what does that say? Does that say that students with disabilities can't be self-determined? No, I don't think it does. I think what it says is they don't have the opportunities to learn how to set goals and to engage in problems and to be involved with decisions and to have their interests and preferences listened to. So -- I skipped ahead. So we know that this is important for us to address in schools. Because I'm going to show you in a moment. We know how -- we know that by -- if we do this, kids will become more self-determined. If they're more self-determined, there are more positive school and transition-related outcomes. So this is an area where students can benefit from the work that we do, interventions to promote it.

We know a number of things. Mainly, you know, we've done -- there was a lot of work at in one point in time looking at what predicts greater self-determination. One of the things that was clear is that the more choices you have in your life, the more self-determined you are. Well, of course. And yet, if you think about systems and schools and things, you know, what kind of --? Think about the number of choices a typically developing 11th grader makes in the course of a day and a week. I mean, both my boys are now in college, so we went through high school; thank God I lived. I didn't have gray hair until three years ago. You know, they're making all sorts of choices. I didn't see them for days and weeks at a time, right? Now the kids with disabilities, how many choices are they making? Same kind of choices? Are we restricting choice opportunities or are they just not there? Is there --? You know, take a look at those things. And because really it's about getting kids out and enabling them to act in their environments. You know, we -- for those of you who work with kids with intellectual disability, IQ has been keying on a lot of things for a long time. Our research is pretty clear. If we get a big enough sample, we can make IQ scores and self-determination scores correlate positively and significantly. At about a .15 to .20 level.

Now, think back to your masters and your undergraduate, your stack course. A .15 correlation statistically significant, but generally meaningless. You know? It just doesn't really tell you anything. What matters is the number of choices you have. Those are the kinds of things -- the opportunities you have to solve problems. Every kid can become more self-determined. That's our goal. I'm not worried about becoming maximally self-determined. Again, you know, I don't even know what that means. This isn't a bell curve kind of thing. We want to enable young people to be more self-determined. Every kid can become more self-determined. You know, we know how to do that.

We know that -- from research, that self-determination status predicts membership in a higher quality of life. People who are more self-determined end up with higher quality of life scores on these kinds of measures. We have research that initially showed strong correlations between level of self-determination and positive transition-related outcomes including employment and independent living. I'm going to come back to that in a couple studies that have made that link even stronger.

For students with cognitive disabilities, this was a study that we did a number of years ago. We measured 30 related outcomes -- transition-related outcomes. Where you were living, you know, whether you worked or whatever else. I'll just point out that almost 30 -- and then we looked at kids who were self-determined and weren't self-determined. There was not a single item on that 30-point interview in which kids who were less self-determined did better. So, you know, and many of these were statistically significant. You know, these are still here. We had a very strong sense from research from the 1990s and 2000s that this mattered, but we didn't have the kinds of evidence base that let us talk about evidence-based practice and causal relationships. And I'm going to present that to you now.

So here's -- first of all, I want to point out that there are data for the efficacy of a number of self-determination-focused intervention models and programs. The "Steps to Self-Determination Process," which is published by PRO-ED. "Take Charge for the Future," Laurie Powers and her colleagues. "Our Self-Determined Learning Model of Instruction," which I'm going to go through it a little bit.

We have meta-analytic and design studies looking at -- multiple studies that look at teaching students problem-solving, decision-making, goal-settings, you know, self-awareness, self-advocacy kinds of skills. We know from those that if we teach students these skills, they can learn and acquire these skills. We know that. Okay? And if they learn and acquire these things, they become more self-determined. We know that A) students with disabilities are still not major players in their IEP meeting and in their transition planning meetings. We've made some progress but, you know, we still have a ways to go. We have shown that -- but, you know, there's evidence that shows that students who are provided supports that enabled them to learn how to engage in transition planning are more engaged. The planning meeting becomes more student-focused and more goal-oriented. We know that, from research, that students who are more self-determined are more likely to engage in their transition planning. And that engagement and transition planning and participation, transitive planning, results in greater self-determination. So there was -- there's a reciprocity there. Get kids get involved in their transition planning in meaningful ways. You're going to -- by doing that, you're going to enhance self-determination. Then kids are going to want to do it more and more and more.

You know, I -- we sometimes start this too late. I moved to -- my kids went to the district in the Kansas City metro area where in the 1st grade they had two parent/teacher conferences. And the second parent/teacher conference was student led. This was every 1st grader in the school. Every 1st grader. This didn't have anything to do with IEPs. And so we moved to this city when my older son was a 2nd grader. So he did it immediately. My younger son was a kindergartener, and he saw -- my younger son saw that in 1st grade he was going to get to this. And we kind of forgot about this. I thought, "Well, this is nice they're doing these things." You know, it was cool.

The night before -- when my younger son entered 1st grade and it was time for that second parent/teacher planning meeting, we had the darndest time getting him to go to sleep. He was so excited about this. He was talking about this. And what did they do? They had a two-page sheet that said, "This year in Math, I worked on ..." Blank. Filled in the blank. "I did really well in ..." Blank. Fill in the blank. "I need some more work in ..." Blank. Fill in the blank. I'm going to pull out my portfolio, I'm going to show mom and dad these things and do that. "In reading --" you know, "I did well in this." Took almost no time on the part of schools. And I thought, Well, if we did this from 1st grade on with kids with disabilities, we wouldn't even have the struggles by the time we got to middle school and high

school of kids saying "I don't want sit there. I don't want to do that." We got -- you know, so we need to back a lot of this stuff up so that we're doing it and we continue to do it.

And there are a number of these student involvement programs. Next Step. Again, this is PRO-ED, self-directed IEP. I'm going to give you resources where you can find out where to get these things. So you don't have to worry about remembering these.

And the self-advocacy strategies for students with learning disabilities. This was developed for kids with learning disabilities and emotional behavior disorders. Our "Whose Future is it Anyway?" is for kids with intellectual and developmental disabilities.

Now then, up to that point in time, none of this was really -- could meet the standard of evidence-based. So I want to give you several studies. I'm going to zoom through these because the papers are online on that PBworks site, so you can read them in depth. I just want to leave you with a clear understanding that these are evidence-based practices.

So we did a study that was looking at multiple interventions to promote self-determination. These were randomized trials across 50 school districts in six states. It's hard to do randomized trial work. You have to try to -- we trained something, like, 750 teachers over this course of time. You know? I had three graduate students just quit on me. You know? This was across disability categories. So not specific to -- and we -- and students were proportionally represented in terms of that. We randomized by campus, because you can't really randomize by student or teacher because there's so much interplay in special education. You know, teachers teach multiple students, students have multiple teachers. You can't randomly assign by the teacher and have in the same class one student getting something and another student not getting it. So we randomized at the campus level. And that just means we have to have larger samples because we have to run statistics that account for the fact that students are nested within teachers, and teachers are nested within campuses. So you've got to -- what it just means is that we have to have larger samples and run different times.

So we had 493, this is middle and high school students. You can see that, I mean, we're pretty proportioned in terms of that. You know, unfortunately for whatever reason, special ed is still 2/3 male, 1/3 female. That hadn't budged much in the last 30 years. I know -- I think I know why some, but ... And across multiple race/ethnic group. And we had teachers implementing everything. The purpose of this study was to do everything we could do. You know? So teachers were implementing at least one of the student involvement packages if they were in the intervention group. And all teachers in the intervention group were doing the Self-Determined Learning Model of Instruction. And, you know, some of them were doing Next Step. I mean, it just depended on -- their circumstances, their student group, whatever else. But there were at least two interventions going on with every student.

So this isn't a -- this study isn't particularly a measure of any one of these. It's what happens to students if we do that. Now we used multiple measures of self-determination. I'll show you how to get a hold of these. And we looked across time. So when I get to that, that's important.

Research questions, you know, Does this matter? We first looked at our own "Whose Future is it Anyway?" So this is for students with intellectual disabilities. We had a large enough group of those that we could compare them against a controlled group that didn't get anything. And what we found was that students who were involved in a process to teach them what transition was and how to set

goals and how to solve problems -- these are all kids with intellectual disability -- in fact, gained significantly in transition knowledge and skills over time, as well as enhanced self-determination. So students who were involved in this were, you know, gaining the transition knowledge that would enable them to meaningfully participate in future planning and whatever else. Understanding what they want, setting goals, those kinds of things.

For the overall study, we were looking at this. So here's -- this is a student's -- on one measure of self-determination. You know, when you randomize you're supposed to end up with roughly comparable baseline groups. But of course nothing like that ever happens in the real world. And despite the fact that we had 500 students and, you know, 50 schools or whatever else, the treatment group actually started off way low. We looked at this and thought, "Uh-oh. We've got problems." But what happened over the course of time? The students in the treatment group out-performed students in the control group.

Now then, you'll notice that the students in the control group did better. Why is that? No matter what you do to them, kids are going to become more self-determined as they get into high school. It's just a function of how we structure school, right? There are more opportunities to do more things. So when you're evaluating interventions to promote self-determination, you actually have to beat this kind of improvement. So you have to not only show that your intervention works, you've got to show that it works better than doing nothing, right? And so very clearly the students were more self-determined.

Now, for that study we then followed up with the same students one and two years out of high school. So here's a group for whom we had randomly assigned to control or treatment. We had -- for the control group we had engaged in intervention -- or I'm sorry, the treatment group -- intervention to promote self-determination. The control group just got business as usual. And then we followed up and we found that students who in the treatment group were more self-determined, now we're following up and saying, "Does that matter?" And what you can see here is that in the students there were significant predictors for community access one and two years post. That's attributable by self-determination level. So students who were more self-determined in a treatment group achieve more positive community access. So these were clusters. These are latent variables. These are clusters of indicators of community inclusion, is that they are. And that one year employment post school was significant a predictor. Not the second year. And then it was all wishy-washy around financial independence.

So what does this mean? Well, first of all, community access in both years was predicted by self-determination. So kids who were more self-determined, who got close interventions, achieved more positive community inclusion outcomes. Now you say, "But, Mike, only one year post-employment? That's too bad. Gosh, that would have been better for you to have both." Well, it would have been better to have both. Far and away the strongest predictor of employment post-one year was the level of self-determination, having received these interventions. You know what was the strongest predictor for year two? Having a job in year one. Oh, by the way, what predicts having a job in year one is self-determination. So it's just if you have a job one year out of school, you're going to have it two years out of school. And if you -- and the strongest predictor that, you know, of these things [INAUDIBLE]

Financial independence. We just thought, "Well who in the world is independent one and two years --?" And we're just -- we're asking this question way too early. So we're going to wait and say, "But I think this is going to predict that students are going to be more financially-independent sooner or later."

Okay. So. What that study -- this is randomized trial causal -- so I can stand before you and say, "If you implement interventions to promote self-determination, your students will become more self-determined. And when they become more self-determined they will achieve more positive transition-related outcomes." It happens. That's what happens. So, we have -- it's evidence-based. It meets the standards of the What Works Clearinghouse and whatever else.

We had a second study. We were looking at school-based stuff. This is just the Self-Determined Learning Model of Instruction, which is teaching students to self-regulate problem-solving to set goals to create an action plan and to then modify their goal or action plan until they can achieve their outcome. I'll come to that in a minute. This was a study -- it was a two-year study. We had three data collection baseline end of first year, end of second year. The intervention, again, it was randomized trial with students in control and treatment. The second year the students in the treatment -- or the control group -- also got the intervention.

So here's what happened. So this is, I think, something really important to pay attention to. So this is baseline, Time 1, this is end of year one, this is end of year two. This is the intervention group and one measure of self-determination. This is the intervention group and the second measure of self-determination. If you look at Time 1, there are no significant differences between the control and treatment group. With either measure. By the time you get to Time 2 -- so this is -- Time 3 -- this is then two years in, there are highly significant differences between the treatment and control groups on both measures. What this means -- and, you know, this makes perfect sense. You don't acquire these kinds of skills and knowledge overnight. This isn't something that we just do once and say, "Okay, check that off." It's about engaging students in setting goals in learning to solve problems. And it's a process that if you keep doing it -- you know, what they did is students would set school and transition-related goals. And then when they achieve those goals, they would then set another one. Because, you know, solving one problem just leads to another problem, right? You know? You're never really done with goal-setting and problem-solving. So it was an integrative process. They continued to use this and do this. And over time, they acquired the skills to enable them to do this more efficiently. And became more self-determined.

Now, does it matter that they became more self-determined? When we were looking at goal attainment, for one thing -- did students attain goals -- we had both academic goal attainment scaling scores and transition goal attainment transition scores. Don't -- I mean, this is a way of standardizing goals across content areas that results in a standard score. A T-score that we can compare, so it doesn't matter if the goal was tooth-brushing or, you know, learning a job. You're getting a standardized score. And what we found was that for students with learning disabilities in the treatment group, there were highly significant -- they were highly more likely to attain academic-related goals than students with learning disabilities from the control group. Or for that matter, in the students with intellectual disability -- in that group. And for kids with intellectual disabilities, the differences came out in the function or transition-related skills.

So, you know, I would -- there's no reason to believe that teaching kids to set and attain goals should be limited by domain and disability category. I think all we're seeing here is this is what learning disability teachers do, right? They teach academic goals. And this is what students with adolescence -- with intellectual disability receive transition-related stuff. And that what we're seeing is that's just how it shakes out. So ... But we can say that students who were more self-determined and received

intervention, achieved academic and or transition-related goals at a higher rate than their non-disabled peers.

This is -- I keep meaning to change the heading on this slide. This is actually "Access to General Education Curriculum: Impact on Access General Education." A cut and paste error right there. And you can see that we looked at -- so we're teaching kids to self-regulate problem-solving to set and attain goals. Should that impact how well students have access to the general education curriculum? Well, yeah. You're teaching them how to do the things that engage them with content and with curriculum and to organize themselves and to study and to do these things. And sure enough what we found was that for students with both intellectual disability and learning disabilities after the two years of interventions had much greater access to the general education curriculum. So we're giving these kids skills that will enable them. We're pursuing research right now that implements the Self-Determined Learning Model of Intervention -- of Instruction -- as a Tier 1 intervention for all students. Because we think that every student in schools needs to know how to set and attain goals.

Okay. So once again we have clear evidence. That meets the evidence-base. We have a couple of other studies that are randomized trial, but I didn't draw it out to you. If you do this stuff, students benefit. They become -- they acquire skills like problem-solving, decision-making, goal-setting. They become more self-determined, and it results in more positive school and transition-related outcomes. We have clear evidence for that.

All right. So how do we do this? I just love this quote. This is from Jim Martin from years ago. It's what I was talking about in terms of we tend to be too often a dependency-creating enterprise. He says, "If students floated in jackets for 12 years, would they be expected to swim if the jackets were suddenly yanked away?" Well, of course not. Probably not. And he says, "The situation is similar for a student who is receiving special education services. All too often these students are not taught how to self-manage their lives, but they're thrusted into the cold water, post-school reality." And we're surprised when they don't succeed? We haven't equipped them. You know? I mean, those of you in this room are the people that have got to get this stuff inserted into the curriculum. You know? We know the struggle over the last decade with, you know, the fact that transition-related content was left out of a lot of things that -- you know, and we were trumped by, you know -- And it is important that kids learn to read and write and do math.

But, you know, the pendulum is swinging back and we're going to have greater opportunities. You know, [INAUDIBLE] is trotting out, there's going to be things there. I think that, you know, there's a lot of interest at the capitol and in the feds around transition. You know, I think we're heading into a period where we can potentially make some progress. And so, you know, we need to -- you know?

So how do we do this? Okay. So we kind of -- when we first started this work we said, "Okay, well, we kind of know what self-determination is, but what does it look like in terms of instruction?" And here we came up with a set of things that if you're doing stuff around this, you're doing what you need to be doing.

So the first level is this -- these kinds of things, instruction -- providing students opportunities to make choices, to be involved in decisions, to learn problem-solving, goal-setting, self-advocacy, self-management or self-regulation kind of skills, self-awareness, self-knowledge. Those things have got to be infused in the curriculum. We can teach goal-setting even when we're teaching math or science or

whatever. You know, language arts. We can teach problem-solving. You know, we know how to do this stuff; we just tend to not do it. So we need -- it needs to become explicit and it needs to be completely -- And you know, from about the late '90s on, once -- you know, when all the access to the general education language came out in IDEA, it was pretty quickly apparent to us that if you looked at the standards -- at that time there were performance standards and then student achievement standards, right? If you looked at those, they were chock–full of words like "goal-setting" and "problem-solving" and "choice-making" and these, you know, these things. You could find a way to embed instruction to promote self-determination into any content area, into any set of state standards. And the same is true for the common core. You can find where to embed instruction around goal-setting, problem-solving, decision-making, by looking at, you know, grade level standards and such. So they're there. So we -- so importantly, you know, we're looking for ways to infuse these kinds of things in too.

Self-determination emerges as students acquire capacities. So we're teaching them particular skills. But it's also about opportunities, right? The great thing about student involvement in IEPs is it's providing students opportunities to take responsibility for, and to be involved in, a very visible aspect of, you know, what happens in school. So we need to -- we need to create learning communities. And we need to do things that enable young people to have the opportunity to both try out some of the problem-solving things they've learned -- I mean ...

And there's -- I don't have time, but we've written a lot about this and I'm sure a lot of you know this. These are all sort of developmental. If you're looking at, say, problem-solving skills, you don't work with four and five-year-olds on problem-solving because they're not developmentally ready. You know, their solution to any problem is just completely redirect to something else. Right? You know? They -- you know? But developmentally it becomes late elementary school and early middle school are critical years for the development of problem-solving in terms of young people being able to understand that there's a situation -- and I'll go through a little bit of that in a moment.

So there's -- and, you know, and then in high school, you begin focusing around issues of decision-making, which begin with solving a problem. You solve -- the problem is, What are my options to decide from? And ends with making a choice. So these all are, sort of, lifespan-related issues in many cases.

So what we're wanting to do -- and then, you know, importantly supports and accommodations for students who are not going to acquire all the particular skills. And again, if we can put in place the right supports and accommodations, what does it matter? You know? You know? They're still able to do the stuff. So we're looking for schools that have strong instruction on these component elements. It's -- you know, people are teaching goal-setting, problem-solving, decision-making, self-awareness kinds of things throughout.

You know, there are these self-determination-related curricular and assessment materials that provide sources for teachers to then build on and to improve on, right? And again, I'll give you a source for those in a moment.

And then active student engagement and involvement in their educational planning beginning early on and staying with that through the lifespan so that students -- And it doesn't have to be -- and again, I'll give you some resources. But you don't have to go buy some packaged thing. I have said, you know, in multiple states on students with intellectual disability, presenting a PowerPoint that presents what they do well, what they like, what they worked on this year. It's exactly the same thing. You're just putting

students in roles of learning to think about what they do well, what they like, what their skills are, where they need instruction to -- and supports. Putting them in those roles. So we're doing instruction on these things.

I'm going to breeze through this.

You know, making a choice is just indicating a preference between two or more options. This is really critical in early elementary years because it begins to teach students that they have a voice in their process. These become foundational skills for self-regulation and for student's understanding of, you know, of having some sense of control over learning. It's also the fact that young children have to learn that not every option is available to them, right? So, you know, if you don't teach kids that early, you're going to be dealing with them thinking that every option they should have is, you know, later on. So ...

You know, so it's -- and it's so much about providing opportunities. We don't typically have to teach kids very much about what is their preference. I mean, you know, the literature is pretty clear that neonates come to the world expressing preferences already. Preference -- students -- children two-weeks-old have a preference for an oval over a triangle. Why would that be? Mom's face, that's right. Mom's face is an oval. It is good for our species for that -- for infants to focus on ovals and not triangles. So if you've got a triangle face, I'm sorry; you need to wear an oval mask or something. But, you know, kids -- and by six-months old they've got all the preferences in the world. Then they learn to walk, and oh, my God. You know? They become mobile. So we don't have to usually teach about preferences, so much as embed them into opportunities to [INAUDIBLE] That's all these things.

Problem-solving. Basically problem-solving has a component of identifying a problem, explicating the problem, and identifying a resolution. So knowing that the problem is there, that's somewhat a developmental thing. Again, middle school/high school. And then -- Gosh. And then students, you know, need to learn to be able to identify. Students -- younger students, they attribute -- they explicate -- they attribute the problem to global sources. You know? "So-and-so took my book." That's the problem. "Because he's a jerk." Well, he might be a jerk, but that's not a problem you can deal with. You've got to be able to narrow it down. "What can I do to solve that problem?"

So I'm seeing that we're at five after, so I'm going to -- so we know how to teach these things. You know, decision-making begins with a problem-solving process, teaching consequences, you know, looking at what are consequences of actions, what are the probability that actions -- that the consequences will occur, what's the importance to you as a person of value, what ...? You know? You have values and you have preferences that might un -- you know, take -- say, I'll take on something that has a little different risk. And then integrating all those into making a decision. I can break -- this is, you know, it's -- decision-making can be a complex cognitive task, but I can break this down just like I've done here and I can guarantee you that I can involve any student in any school in one of these steps and they will be engaged in decision-making at a level that they -- that otherwise they hadn't been able to do.

Goal-setting is at the heart of these issues. We need to set goals. Teach students to identify goals, to develop objectives, and to identify actions necessarily to achieve the goals.

And to track and follow their progress. Again, self-monitoring. We're not going to have a lot of time. We -- every kid should learn how to self-monitor progress on goals in every class so that they're tracking

their progress toward whatever the outcome is, instead of the teacher doing that for them. We know how to -- there's a huge literature base that shows that we know how to do that and it's effective.

We need to promote self-advocacy skills. How to advocate.

We need to -- you know, these issues of, as I said, self-instruction, self-monitoring, self-scheduling, self-reinforcement, self-management, antecedent cue regulation. We have a rich history of understanding how to implement ways that enable students to do things for themselves that somebody else was going to do then.

Self-awareness and self-understanding.

I've mentioned an intervention; we developed the Self-Determined Learning Model of Instruction. I've put the teacher's guide to the Self-Determined Learning Model of Instruction online so that you have it. This is basically teaching kids to self-regulate problem-solving that goes through three phases, each phase has student questions that students answer. And each student question is linked to a set of teacher objectives that the teacher knows what they're running to facilitate for the student in getting out of that. Right? So ... And each -- there's four sections in each phase that lead the student to the solution of a problem. In Phase 1 that problem is, What is my goal? In Phase 2 the problem is, What is my plan? And in Phase 3 the problem is, Have I achieved my goal? And Phase 1 ends up in students setting a goal. Phase 2 ends up in students creating an action plan and a monitoring process. And Phase 3, the students evaluate their progress and over time depend on whether they need to go back and change their action plan. They're not making adequate progress, they go up, and they change their action plan. If they've changed their action plan several times and it's not making a difference, they probably set the wrong goal. They set a goal that's too broad, so they go back up, and they refine their goal. But this is all -- so it's an iterative DO loop. And eventually they're going to modify their action plan and their goal enough that they're going to be able to achieve this.

And we've done this with hundreds and hundreds and thousands and thousands of students across any disability category. Again, this is an intervention that we're trying to take to Tier 1 for all kids. The information online will show you these things. But it's -- you know, it's just working to engage students in the heart of the process.

So I mentioned, you know, there is efficacy -- there's some links to PRO-ED, which is where the Steps to Self-Determination Curriculum is.

There's -- you have to contact Laurie Powers at the University of Portland to get information about the "Take Charge." Our [INAUDIBLE]

There's a -- we set up a one-stop shop, it's called the National Gateway to Self-Determination. www.NGSD.org. And it has all the information. It's got stuff for professionals, for parents and family members, and for people with disabilities. One of the great things about this site is that we have more than 50 testimonial videos with people with disabilities talking about why these kinds of things are important in their lives. It makes for very powerful ways of convincing people.

Here's the information about efforts to promote student involvement.

Again, PRO-ED.

Self-directed IEP.

The Zarrow Center at the University of Oklahoma website is an important source for you. It has all the inter -- the assessments I've mentioned, the Arc's Self-Determination Scale and the AIR Self-Determination Scale are freely available there plus other resources. None of us have made very much money on curricula in this area, I'm sorry to report. So we give it away. But that's what we wanted to do anyway.

The self-advocacy strategy. How to get over it.

We give away the "Whose Future is it Anyway?" There is a UDL version of it that Attainment has published. We continue to give the full version away as well, so.

You know, there are multiple measures of self-determination, but the Arc's and the AIR Scale are available. All these are available online. Those are -- these are both Norm-Referenced Standardized Measures so that -- And both of them result in information about instruction.

I will tell you that my colleagues and I are developing a brand new -- we're in the third year of an IES project that has developed and is norming a new measure of self-determination that's for all kids, including kids not only across disability categories, but without -- And it will be fully online. Just remember self-determination.org. I own that domain. And that's where -- in fact, if you go there now, there's actually a link to a version of it. We're still collecting Norman data on that. But that will be -- and our goal is to make that freely available for researchers and for educators. So -- yeah. Yeah?

>> Would you say that again?

>> Self-hyphen-determination-dot-org.

>> So your ongoing research will be updated onto that website?

>> Yup. Yup. And we're trying to keep -- and GSD. And, you know, if you're interested in papers. I don't know how many of you know about Academia.edu, but I try to put as many of my papers on Academia.edu as I can. And then, so that, you know, so you can just Google my name and get to it that way.

Here are these websites. The National Gateway to Self-Determination, NGSD. The OU Zarrow Center. Our own BeachCenter.org. Be patient with us, we're going through a complete revamp. You know, we don't have anything that's not available on those other two sites, but we're working to make our website friendlier.

So ... And then books, if you're interested there are a number of sources. Paul Brooks, Gilford, Corwin-Press have books out there that are teacher-friendly and go through the kinds of things I've talked about.

And I think that's it. I'm going to go back all the way to the beginning where the -- There was probably an easier way to do it than this. But I've headed down this path so there we are. This is where all these available materials are. If I've mentioned anything else that's not here, email me and I'll be happy to get it to you. And frankly if there's any way I can be of assistance in terms of your efforts to promote the self-determination of youth with disabilities, my email is Wehmeyer@ku.edu. And I'm happy to hear from you and I'll do anything I can.

So thank you. I'm sorry that once again, I didn't -- I'll hang around for a little bit if you had some questions or anything. Thank you. Have a good lunch.