### Anna Gassman-Pines:

Hello, and welcome to Policy360. I'm your host this time, Anna Gassman-Pines. I'm a faculty member here at the Sanford School of Public Policy at Duke University, and the Associate Director of the Duke Center for Child and Family Policy. In recent years, states across the country have significantly expanded access to pre-kindergarten or pre-K, and there have been proposals at the federal level to fund pre-K across the country.

Researchers know that pre-K offers short-term benefits, kids do better in the early grades if they've gone to pre-K. But the effects seem to fade by about the third grade. Today, we are going to talk about new research into this fade out effect. Researchers paired student data from a statewide pre-K experiment with records of teacher observation scores from Tennessee's new formal evaluation program. Their idea was a simple one would, a student's access to high quality early grade teachers help the pre-K effects last longer? My guest is Walker Swain. Walker is a graduate of our Sanford School Master of Public Policy program, and currently an assistant professor in the College of Education at the University of Georgia. Welcome to Policy360.

Walker Swain:

Thanks. Morning.

Anna Gassman-Pines:

So first, can you describe the gains that kids get from pre-K?

#### Walker Swain:

Well, so a lot of the work that I do and a lot of the work in education policy I think is, in recent years in particular, has been really focused on what we sometimes called cognitive gains, but really we mean sort of more testable, measurable benefits. So you're taking these early developmental measures of pre math and pre literacy skills, and then trying to sort of draw a line from those oftentimes all the way to where we start giving kids these standardized tests in third grade and fourth grade.

But the research is really trying to then connect all of that out through their sort of entire life cycle where you're trying to look at differences starting with how kindergarten and first grade teachers are perceiving differences in their sort of school readiness or which could be anything from confidence or more like compliance, and then into looking at differences in the students' behavior, whether or not they ultimately need to be retained in grades. Then researchers have in some of these long-term studies have followed people into their 40s and 50s. Of course, those are based on pre-K experiments or early childhood experiments that had to have happened 35, 45 years ago.

So part of the reason why we do focus on some of these early measurable things that we can try to connect, these test score gains to long-term earnings or success going to college, completing high school is because policy makers on the ground want to be able to make a change and not say, "We'll tell you if it was effective 30 years from now." And so, even though the test scores in and of themselves, especially thinking about something like third grade test scores, might not be something that we're particularly interested in, we're really looking at those benefits as sort of a predictor of longer term successes.

Anna Gassman-Pines:

And so there are documented long-term effects of pre-K too, and those tend to be more related to things like lower rates of incarceration and so forth. Can you say a little bit more about those longer term effects?

#### Walker Swain:

Yeah. So a lot of times when you hear people talk about [inaudible 00:04:02] how either preschool or early childhood education pays for itself. And you have these longterm cost benefit analysis where you're sort of weighing the cost to the state. One of the big factors is actually sort of reduced crime in that with the sort of more famous Perry Preschool or Carolina Abecedarian program, these two old programs that you know a lot about. But that where you're able to track these kids out into adulthood and be able to see whether the kids who experienced the program versus the control group, these kids, little four year olds, who didn't get access to the program, were they less likely to commit burglaries, even actually a lot of the benefits when you look into the cost benefit analysis on it, the big estimates are based on the fact that there were several murders actually committed by individuals in the control group in the Perry Preschool program.

And I think in some ways it's a strange idea in some ways that we're saying you take a three year old, four year old and you're saying, "Well, putting them into this situation..." And those programs were really pretty intensive interventions with a lot of... They had home visits, a lot of work with parents. But you can think about that sort of early stage in your life as really having the potential at least to set you on a course where if you're really living on the margins to where little differences can have pretty big impacts on... It's sort of a wild when you think about this intervention being something that's reducing teen pregnancy or resulting in higher college graduation rates.

But I think in the current research, we focus where, for one, we're looking at really a different sort of program. We're talking about primarily these new sort of school-based pre-K days, which are... There's big variation on what those look like all over the place, but largely are about bringing your four year old into school and doing something a little different from kindergarten in theory, but getting them out of whatever that home situation is.

## Anna Gassman-Pines:

So tell me more about this study. You connected kids who are in state preschool programs to the effectiveness of their teachers in the early grades. So first of all, who were the teachers that you were looking at?

## Walker Swain:

That study in Tennessee, we had this sort of fortunate overlap of a statewide, but focused on preschools that were oversubscribed. So the research team at Vanderbilt was able to get the folks who were running the over scribed preschools to agree to run up a wait list for the preschool, and then randomize the order of the wait list sort approximating experimental evaluation of the program. And so then we were able to link these kids who either got, or didn't get preschool to the records that we have of their enrollment where we're matching students to teachers through their entire educational career, as long as they're in Tennessee public schools.

So at the same time as that preschool experiment was being done, the state implemented a statewide teacher evaluation program where they were at every grade from kindergarten up evaluating teachers on this, what would ultimately give you a sort of overall rating of zero to five where you say five is highly exceeds expectation. And these kids are scattered all over the state so you had... You're

ultimately comparing a treatment kid who has pre-K and then goes into a school that has where he gets a highly effective teacher, to a kid who got pre-K and into a school that has a teacher who's deemed less than highly effective. But the school and everything is sort of going into both those measures.

## Anna Gassman-Pines:

And so when you compare those different students with a different pre-K and early teaching exposure, what did you find?

#### Walker Swain:

We found that kids who had preschool and a highly effective instructor, and particularly the highest rated teachers, did considerably better than kids who either did not have pre-K and had that effective teacher, or better than kids who had less effective teachers and had pre-K. So you had this kind of combined effect. Some sort of early evidence of it creating this... You could think about it as sort of a sustaining environment for that pre-K effect.

### Anna Gassman-Pines:

There's been a lot of talk about finding solutions to the achievement gap. Do your findings from this study shed new light on what can be done in the early grades to help kids succeed?

#### Walker Swain:

Well, I think when you combine work and that study, and some of the other work that folks across the country have been doing that are focused on this idea of thinking about not preschool as being this one time intervention in sort of the way that we were talking about those model pre-K programs earlier, where just having this big intervention for four year olds will change their life, but really thinking about trying to create this sort of a coherent pipeline from preschool to sort of college, and career, and beyond.

I think that this sort of body of research that's focused on the interactions of early childhood education, and particularly in some of the early educational and social experiences of children afterwards speaks to the importance of thinking that if we give these kids new skills and then they go into kindergartens or first grade programs where the teachers are teaching those same skills that they've just develop, you have the potential, and there's just some good research on the sort of impacts of being retaught something you already know of at best, sort of holding ground, at worst, now you're potentially becoming frustrated, you think about the potential for even that to drive behavioral issues.

And there's some good work from Jade Jenkins [inaudible 00:11:59] that looked not just at this sort of overall construct of effective instruction, but rather taking the early grade teachers and the preschool teachers, or working with the early grade teachers on trying to align the curriculum that they're teaching to actively build on what the students were getting when they were four now when they're five and they're six and they're seven.

And I think that when we're thinking about trying to... Whether you're talking about it in terms of closing achievement gaps, or trying to just provide adequate education for groups that have lacked and been denied access to some of these high quality early educational experiences and enriching experiences, being sure that we're making those interventions in a sort of coherent comprehensive way, I think that was sort of the main take home from that.

#### Anna Gassman-Pines:

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Well, Walker, thank you so much for joining me today and talking to me about this really fascinating and important work that you're doing.

Walker Swain:

Thanks, Anna, it's fine.

# Anna Gassman-Pines:

My guest has been Walker Swain. Walker is an assistant professor in the College of Education at the University of Georgia. He has been on the Duke campus to give a talk for the Center for Child and Family Policy's Early Childhood Initiative. And as I mentioned, it's not his first time here. He graduated from the Sanford School with a Master of Public Policy in 2012. We will have a link to his work on our website policy360.org, including research into what motivates students more, money or recognition. That's our website policy360.org. Until next time, I'm Anna Gassman-Pines.