Day 2 Welcome and Keynote: Potential Policies and Practices to Address Special Education Workforce Challenges

Amy Peterson: All right, welcome, everyone! Welcome to Day 2 of Prepping for Progress 2025. Today's presenters, Roddy and Alli are going to share some of the lessons learned from their research around special education workforce and really understanding the special education workforce, and how do we support educators to best do this work? So, with that, I'll turn it over to our presenters, and they will share their great learnings.

Allison Gilmour: I'm Alli Gilmore, I'm a principal researcher at AIR, and I'm really excited to present today with Roddy, who is the director of the SPARC Center. And we're going to be talking about the composition, distribution, and stability of the special education teacher workforce, and then taking it one step further to talk about what's going on in a few states to really support the special education teacher workforce. Let me move that banner. The special education staffing challenges that we see now are persistent and multidimensional. They've actually been around since the beginning of special education.

We like to conceptualize staffing challenges as being due to four different components that interact with one another. Composition, distribution, stability, and effectiveness. In the coming slides, I'm going to talk through what we know about each of these, and then what we're finding in our work.

The composition of the special education workforce includes two components. First, we simply don't have enough special education teachers to fill the number of vacant positions. And this is due to a number of factors, high turnover, but also decreases in the number of people who are pursuing degrees in special education.

In the graph, this shows data over time on the number of program completers in special education using two different data sources that capture slightly different populations.

The takeaway from both of the panels of this graph is that the number of people pursuing special education degrees has decreased over time. So, we just don't have enough people who are finishing out their educational programs with special education degrees to enter special education. So, this is one aspect of a challenge related to the composition of the special education teacher workforce.

The other challenge is that the characteristics of the special education teacher workforce don't really match the characteristics of the students. Special educators tend to be female and white, while the students that they work with tend to be more diverse.

This mismatch is challenging because prior work in general education has found students do really, students of color do slightly better when they're taught by educators of color. So, we have a diverse student population, but not a very diverse workforce.

We also rely on inexperienced and uncertified teachers. So, we have a workforce where we don't have enough people, and then the people we do have tend to be on the newer side or uncertified in special education.

Another challenge related to the special education workforce is the distribution of special educators across schools.

Special education teachers appear in national data to be inequitably distributed across schools, with more novice teachers, more uncertified special education teachers working in schools that serve traditionally underserved students. And evidence from general education suggests that a meaningful proportion of the achievement gaps we see between students in underserved groups, traditionally underserved groups, and those in more resourced schools is due in part to this inequitable distribution of teachers across schools.

So, while we are relying on a composition of the workforce that is uncertified and novice, we see that there are more uncertified and novice special education teachers in certain settings, which leads to inequities in access for students with disabilities.

We also have challenges related to the stability of the workforce. We've all heard a lot about the high rates of turnover in special education, and that's been very true historically, using national data. And this turnover is problematic for a number of reasons. It's really costly to schools, not just financially, but in terms of student achievement.

When a teacher leaves, they take with them the knowledge that they have gained, the teams they have formed.

And that disrupts school-wide initiatives and reforms. There's also evidence from general education that a teacher leaving impacts the achievement of other students that they would have taught, because they tend to be replaced by novice teachers. So there's the cost to achievement, but there's also financial cost to losing teachers.

When a teacher leaves their position, there's the cost to recruiting and training a new teacher, in addition to, getting people up to speed on whatever initiatives and interventions are being used in the school. And these high rates of turnover sort of interact with what we saw at the beginning of the challenge around composition. If people are leaving, there are more vacant positions, we don't have enough people to fill them, they're being filled with uncertified and novice teachers.

So, these challenges aren't stand-alone, they interact in many ways.

And finally, each of these challenges is related to effectiveness. There are also larger questions about if the special education teacher workforce is adequately effective right now for improving student outcomes at scale.

This graph compares the scores of students with disabilities in dark blue to students without disabilities in orange, and the y-axis shows the percentage of students scoring proficient or above in grade 4 math, grade 8 math, grade 4 reading, and grade 8 reading. And these are from the NAEP. And what is sort of an immediate takeaway here are the huge gaps between students with and without disabilities. In math, that grade 4 gap is 44 percentage points, it's 25 percentage points in grade 8, 25 percentage points for reading in grade 4, and 26 percentage points for reading in grade 8. So, these are big gaps between students with and without disabilities that really raise questions about how effective our special education teacher workforce is.

But again, this effectiveness piece interacts with the stability, distribution, and composition. If we're relying on novice teachers who aren't trained in special education because people have high rates of turnover, that of course influences the effectiveness of the teachers that we have.

While we know these challenges exist, it's unclear how pervasive these challenges are. When we talk about these special education challenges, they're usually talked about as being the same in all locations, and that's in part because much of what we know is from national survey data that takes a sample of special education teachers from across the country.

We have additional information about challenges with the special education workforce because of sort of single one-off studies that have been done in various states.

But a challenge in looking across these studies is that the researchers have used inconsistent methods for identifying special education teachers and how they've analyzed their data.

For example, some researchers might really be looking at the turnover or stability of teachers with special education certification. That's very different than looking at people filling special education teacher roles. So, we have this challenge, like, we know these challenges exist, but they're talked about as sort of the same everywhere, and the data and information we have about staffing challenges,

It may not be comparable or really give us a picture of what is constant across states or different within states.

And this is where the SPARC Center comes in. So, Roddy and I are both part of this IES NCSER funded National Research Center on the Special Educator Workforce Research Collaborative, or what we refer to as the SPARC Center.

And the goal of this center is to address challenges related to the special education teacher workforce, really digging into composition, distribution, stability, and effectiveness in our 7 partner states that cover different regions. Hawaii, Indiana, Massachusetts, Pennsylvania, Texas, Virginia, and Washington.

The goal of this center is first to describe the current state of the special education teacher workforce across these different settings and within these different settings.

In the coming years of this project, we'll be assessing the connections between teacher preparation pathways and various workforce outcomes, and we'll be examining the impact of policies and practices on the workforce. And Roddy's going to give you a preview of what that kind of work is going to look like.

At the same time that we're doing these research activities, we are conducting national leadership activities to improve data collection for special education teachers, engage wide audiences, and build research capacity for doing this type of work to be able to inform policy making in real time at states to help promote a special education workforce that is sustainable and effective.

So today, I'm going to be presenting five conclusions from our preliminary analyses that are really focused on describing the current state of the special education teacher workforce, before I turn things over to Roddy to talk about what states are doing to sort of beat the odds on staffing challenges.

First, we found that states vary considerably in how they identify special education teachers in their data, and how they staff special education.

In this graph, along the bottom, we have each of our seven states, and on the y-axis, we have the proportion of teachers in the state who are special education teachers. And what you can sort of notice immediately is there's a lot of variability here. 18% of the teaching workforce in Hawaii are special education teachers, compared to 8.5% of the workforce in Texas. There's a lot of variability.

So, this leads us to sort of ask what underlies the variability here? And there's two potential reasons we see such big differences across states. The first is each state identifies special education teachers differently.

In Hawaii, they simply, in their data sets, have a variable that says, yes, this person is a special education teacher or not. In Indiana, identifying who a special education teacher is based on the type of classroom they work in, such as a self-contained setting, or a resource room, or co-teaching setting.

In Massachusetts, Pennsylvania and Washington, we have other information about the specific roles that a teacher plays throughout their day in the school, and we can figure out who is a special education teacher based on that.

So, some of the differences here might be in how states choose to define special education teachers, but it also appears that these differences could reflect true differences in how states choose to staff special education.

On this graph, we show the ratio of students with disabilities to special education teachers by state using IDEA 618 data, so the data that states are required to report to the federal government.

We have our states along the bottom again, and then on the y-axis, we have the number of students with disabilities per special education teacher. And what we see is pretty much the inverse of the last graph.

States where a higher proportion of their workforce are special educators have a much lower ratio of students with disabilities to special educators. So, in Hawaii, we have 9 students with disabilities for every 1 special educator. In Indiana, we have 27 students with disabilities to every one special educator. And this likely reflects true differences across states and how they've decided to structure special education. For example, some states may rely more on settings outside of general education, while other settings rely more on push-in and co-teaching services. And we'll see this more as we move forward, looking at differences across movement and stability in the workforce across states. But the big takeaways here is that special education staffing looks very different across states. So, assuming that the challenges in one state are the same as another state likely isn't a tenable assumption.

Our second finding is that special education teacher certification rates are not always lower than other teacher certification rates. The national data that many of the decisions about the special education workforce have been based on usually highlights low teacher certification rates in special education. But we found that this varied pretty dramatically across states.

So, for example, in Pennsylvania, oh, let me orient you to this graph first. So, in dark blue, we have special education teachers. In orange, we have teachers who are not in special education positions, and on the y-axis, we have the proportion of teachers with full certification. So, we can compare the dark blue bar to the orange bar and see what the difference is between full certification rates for special education teachers and those without who are not special education teachers. So, I want to direct you to Indiana and Pennsylvania, and you'll see in those states, certification… full certification rates are pretty similar across special education teachers, and those who are not special education teachers.

And they're actually a little bit higher for special education teachers. So, this narrative that special education teacher certification rate is so much lower than general education teachers doesn't hold in these settings. But in contrast, if we look at Texas, the difference between the full certification rates of special educators and those who are not in special education positions is 46 percentage points.

So, these differences across states in, sort of, the disparity between full certification for special educators and those who are not special educators, really varies, and that lends itself to different types of policy interventions. We might focus on full certification in a state like Texas, where that may not be the focus of policies in some of our other states.

Third, we found, aligning with national data, special education teacher attrition rates are higher than attrition rates for other teachers.

However, the difference in special education teacher attrition and not special education teacher attrition really varies substantially across states. So, in this graph, we have our states along the bottom again, and here we have the proportion of teachers who left the teacher workforce. So, they were teaching in the state during one school year, and in the next year, they are not teaching in public schools in the state.

If we look at the gap between the blue bar and the orange bar, the blue bar is consistently higher, showing consistently higher special educator attrition rates.

But if we think about the difference, there's a lot of variability here. So, for example, in Pennsylvania, the difference in attrition rates between special educators and those who are not special educators is less than 1 percentage point. It's about .3 percentage points. In Virginia, the difference is almost 6 percentage points.

So, while we talk about higher special education attrition rates, it's important to note that the difference is not the same across all settings.

Fourth, we looked at trends over time in attrition. So again, this is leaving public school teaching in the state, and we found pretty similar patterns across our states.

There was a spike in the first year of the pandemic, a decline in the first year of the pandemic, so that's that 2019-2020 school year. There was a spike after that first year of the pandemic in teacher… special education teacher attrition, and then things leveled off to more typical levels.

So, this graph extends the data that was on the previous to look across time. There's a couple other takeaways here. We can see that Pennsylvania consistently has the lowest attrition rate across our states, while Virginia has the highest attrition rates across the states.

But even with these differences in levels that suggest very different contexts across states, it's interesting that we see similar trends over time, suggesting that the workforce was sort of impacted in the same way, based on what was going on nationally.

And then finally, we found that special education teacher turnover rates were generally, but not always, higher in higher poverty schools. There's a lot going on this graph, so let me take a second to unpack it.

So, we have our states across the bottom again, and now we have bar graphs that have 3 different categories of turnover. The dark blue is attrition from the teacher workforce, so that's what we saw before. It means a

teacher was teaching in the state public schools for one year, and then they're not teaching in state public schools the next year.

We also add an orange bar to this, which shows the percentage of special education teachers who moved to general education positions. And then that top bar, sort of the cream that's outlined in black, shows the percentage of special education teachers who left their school or district. So, they moved into a special education position in the state in another school or district.

When we add those 3 bars up, we get total turnover, but the… looking at the specific categories also gives us some interesting information.

So, if we look at that orange bar, you can see that in some states, the orange makes up a large percentage, a large amount of the total turnover in the state, particularly in Indiana, Massachusetts, and Texas.

So, in those states, a lot of special education teachers are leaving special education by moving to general education each year. In contrast, in Pennsylvania, a much smaller percentage of special education teachers each year switch to general education.

We can also divide out turnover by the types of schools that teachers work in. So here, in the first bar for each state, we have low poverty schools, middle are middle poverty schools, and then high are high poverty schools.

A pattern we see across many of our states, Indiana, Massachusetts, Pennsylvania, and Virginia, is that turnover is higher in high-poverty schools than in low-poverty schools. However, this is not true in every state. If we look at Hawaii.

Turnover in low-poverty schools is actually higher than in high-poverty schools. And in Texas, the total turnover is quite high across every type of school.

So, again, these different patterns lend themselves to different policy interventions. In a place like Pennsylvania, we might want targeted policies for high-poverty schools, where in Texas, the policies need to be more generally focused on decreasing turnover altogether.

So, what these findings show is, while all of the states in our project would say they experience special education teacher staffing challenges, they look different across states. And some states we think, could be said, are beating the odds. Even though they're struggling with staffing, it looks very different in Pennsylvania than it does in Virginia and Texas, for example.

What our project sort of highlights is that challenges with staffing vary substantially across states, but also within states, based on the characteristics of schools. These unique contexts really need to influence the policy interventions that policymakers use and LEAs use to improve special education teacher staffing.

So now I'm going to turn it over to Roddy, who's going to be talking about more what some of these states are doing to really beat the odds and try to address special education staffing challenges.

Roddy Theobald: Great, thanks so much, Alli. Hi everyone, my name's Roddy Theobald. I work in AIR, and I'm out in Seattle, Washington, where it's edging ever closer to 9am. My coffee's about to kick in, and I am ready to roll. Thanks for going first, Alli. So, what I'm going to do today is kind of focus on either data or some policy interventions that are happening in three of our specific SPARC Center states. Alli's given an overview of what

the special education teacher workforce looks like in these states using kind of shared data measures and statistics. But in a couple of our states, we either have some sort of novel data, or the state is doing is implementing a specific policy intervention meant to address special education teacher staffing challenges, and we have some data to share with you today.

So, for the second half of the talk, I'm going to focus on these three states. First, my home state of Washington. We have some data that can tell you a little bit more about how staffing challenges currently compare with staffing challenges in other subjects.

I'm then going to fly west to Hawaii and talk about a financial incentive and its impacts on special education teacher staffing challenges, and then to Alli's home state of Pennsylvania, talking about a broad suite of initiatives meant to address special education staffing challenges moving into the future.

So, let's start with Washington. And you may have noticed this is a data-heavy presentation, so I'm going to add another layer of data here and share that, you know, one of the drawbacks of the data that Alli shared is it doesn't tell us anything about the special education teachers that districts would have hired if they could have been able to hire everyone they wanted. And that's a difficult thing to measure, but in Washington, we've actually been downloading district job postings from job postings websites over the past few years, so we have a measure of, you know, what positions districts are trying to hire for in these, in the districts across the state, whether or not they were able to actually fill the position.

And this lets us create a nice measure of staffing challenges by comparing the number of positions districts hoped to hire for in different subjects to the number of new teachers entering the workforce who are endorsed to teach each of those different subjects.

So, to orient you to this graph, the x-axis here is going to be the number of job postings last year, in 2024, per 100 new teachers who are entering the workforce with a given endorsement. So, in other words, if a bar is at 100, there's just as many job postings as the number of new teachers entering the workforce who could teach in that subject. And I'm going to show this for the 6 largest subjects in the states along the left axis, so elementary, English, math, science, social studies, and special education.

What we see when we do this for last year is what I would characterize as dramatic shortages in special education in particular, and also in science. In other words, for every 150 job postings that districts would like to hire for, there's only about 100 new teachers who could fill those positions. So, there's just much more demand for special education teachers than new teachers who can teach in special education in the state.

The reverse is true, though, for elementary education positions, English, and social studies, where there's actually quite a bit more teachers entering the workforce who can teach in those subjects than districts are trying to hire.

And this is something we talk about with the state a lot, that we talk about teacher shortages in this very generic way, when in actuality, shortages vary dramatically by subject area.

And by type of school. And it really motivates a specific focus on the special education teacher workforce in our state, given that the demand is so high relative to how many teachers can have the right endorsements to teach in these positions.

And the interesting nuance to the special education teacher workforce is the problem's actually a little bit worse than this. And here I'm going to use some historical data. This is really old, but it's published, so I'm going to run with it. This is a figure that's going to show you what the special education workforce looks like in Washington according to two measures. I'm first going to show you, for each of these years, how many teachers in the state had an endorsement to teach special education, and then I'm going to show you how many of those teachers were actually teaching in a special education position.

And what you can see here is there's far more teachers in the workforce who could be teaching special education. In other words, they have all the right endorsements to teach special education than are actually teaching in special education positions. This is related to a comment I saw fly through the chat at one point earlier about dual endorsement. Most special education teachers in Washington are teaching with a dual endorsement, so, a lot of these teachers in the black bar could be teaching special education, but they also have an elementary ed endorsement, or an endorsement in something else that allows them to teach in general education also.

But my takeaway from this figure, and what I talk about a lot with the state, is that there's a ton of teachers in the workforce right now who could be teaching special education. But they are choosing not to. And this is, you know, kind of a solution to special education shortages that are hidden in… that's hidden in plain sight, is how we say this sometimes, which is, is there a way to induce or encourage these teachers who have all the right credentials to teach special education to either move into or back into special education teaching positions.

And that serves as a segue to talk about this financial incentive in Hawaii. This is an analysis I did with Alli and some other colleagues of a policy intervention in Hawaii. I'll tell you a little bit about the policy, and then in this case, we actually have some outcomes in terms of the impact of the policy on special education teacher shortages, and I'll share that with you in subsequent slides.

So…The backstory here is that starting in the 2020-21 school year, Hawaii Public Schools raised all the salaries of special education teachers in the state by $10,000. This was part of a suite of differential pay incentives in the state. So, in other words, if you taught special education, you got a $10,000 bonus. There are also bonuses for hard-to-staff schools. Every school in the state is designated either Tier Zero, where there's no bonus, or escalating tiers, depending on how difficult it is to staff positions in that school. You could get up to an $8,000 bonus for teaching in the hardest-to-staff schools in Hawaii. These bonuses are additive, so if you're a special education teacher, teaching in the hardest to staff schools in Hawaii, you actually got a $18,000 bonus, so this is a lot more than we are used to seeing in terms of financial incentives to address shortages.

And, importantly for our purposes, this was announced pretty early. So, it was announced in December of the prior year, so it didn't go into place until the following fall, but teachers knew this was coming. It was announced early. It's a very clean policy. Everyone knew that if I teach special education next school year, I'm going to get this raise.

So, we worked with the state to look at data on shortages and try to estimate the impact of this policy on teacher shortages in the state. We have a couple different measures of shortages. The first is, the proportion of positions in the state that are entirely vacant. In other words, the state reports that they could not find a teacher to teach in this position.

In this figure, the light gray dots are the proportion of special education positions that were entirely vacant in the 6 years prior to the introduction of the policy. About 5% of special education teaching positions in the state were vacant leading up to the introduction of the policy, compared to 2-3% of general education positions. You can see the kind of warrant for this policy in that year

Year after year, the state was facing these… these vacancies, and it probably goes without saying, it's impossible to provide the services to which students with disabilities are entitled in our public schools without having a teacher to provide them. So, I think this is a good warrant for the policy that was introduced before, this refers to fall, fall of 2020. After the introduction of the policy, we see a fairly large change. Vacancies in special education dropped to about 3%. Vacancies in general education did not change much. This is because there was no bonus in general education.

And, while you see this increase in vacancies in subsequent school years related to, I think, what we all experienced in the years coming out of the pandemic, that these were very challenging times in public schools, they increased at about the same rate as vacancies in general education positions. And when we estimate statistical models intended to characterize the impact of the policy on vacancies.

Our best estimate is that the policy… the introduction of the policy reduced vacancies in special education by about 1 percentage point. Another measure of shortages we can consider is this measure that's either the position is entirely vacant, or it is filled with an unlicensed teacher.

Same setup here. In special education, in the 6 years prior to the introduction of the policy, between 12% and 16% of special education positions were either vacant or filled with an unlicensed teacher, compared to 4-6% in general education.

After the policy was introduced in fall of 2020, the proportion of special education positions filled by an unlicensed teacher dropped to closer to 10%. And again, when we estimate the impact of the policy on this measure of shortages, our best estimate is that the policy led to a 2-3 percentage point decrease in the proportion of positions that were either vacant or filled with an unlicensed teacher.

So, descriptively, if the outcome we care about is, you know, the extent to which students with disabilities have a teacher at all, or have a licensed teacher, the policy was an unqualified success.

That said, there's two ways that this policy could have worked. One way it could have worked is it could have kept special education teachers in the workforce.

Another way it could have worked is by getting more teachers with special education licenses to move into special education teaching positions. So, we looked at those separately.

In this figure, we're looking at teacher attrition. So, in on the y-axis here, this is the proportion of teachers who left the workforce entirely at the end of the year. As Alli has shared, attrition rates are much higher for special education teachers. Between 12 and 14% of special education teachers leave the workforce after each year, much higher than the 9-10% for general education teachers.

After the policy was introduced, we see almost no change. And this is a really important finding, I think. Not only descriptively, but statistically, we estimate that the policy had no impact, or no statistically significant impact, on the likelihood that special education teachers stayed in the workforce.

This is interesting because you might think that a bonus of $10,000 makes you more likely to stay in public schools, and the fact that it didn't suggests that there are probably some underlying working conditions that are continuing to be challenging for special education teachers, and this bonus was not sufficient to keep those teachers in the workforce. What it was very effective at doing is convincing general education teachers who had a special education license but weren't teaching special education to move into vacant special education positions. So, what I'm showing here is the proportion of open positions in special education or general education who were filled by someone who was not teaching in that area the previous year.

So, you know, in a typical year, about, you know, 12% of open special education positions were filled by someone who was in the workforce but not teaching special education the previous year. That rate, after the introduction of the policy, skyrocketed. So, in that very first year, over a quarter of open special education positions were filled by someone who was already in the workforce who had a credential to teach special education, but at the time was not teaching special education.

Most of these people moved to a position in their same school. So, they didn't move, they only took a position in their school that was a special education position that was open.

And by doing so, they got a $10,000 raise. This is a very sensible mechanism. This appears to be the way that the policy worked, by creating this huge spike of movement into general education positions, but I think it's worth noting that that's really different than a policy that actually keeps people in the workforce. So, my broad conclusion from this is that a financial incentive or a bonus is a very effective way of addressing, like, staffing challenges in real time, but may not be sufficient for addressing staffing challenges in special education in the long term.

And that's, again, a segue to this last suite of policies, which is occurring in Pennsylvania, where Alli is right now. We've been working with the state of Pennsylvania for the last 4 years to study what they call their Attract, Prepare, and Retain projects. These are projects intended to, as the name implies, attract more people into the special education profession, prepare more special education teachers to teach in these positions, and then retain those teachers once they enter the workforce.

There's actually 10 different projects. I'm going to just focus on 3 of them for today, for the interest of time.

Within their ATTRACT initiatives, I'm going to tell you a little bit about the state's Developing Future Special Educators Grants.

Within the PREPARE suite, I'm going to talk about the state's accelerated program for PK-12 Special Education Teacher Certification Grant, and then for the retention projects, I'm going to talk about the APR Mentoring Project.

So, let's first talk about developing future special educators. The purpose of the program is to establish or expand experiential learning opportunities for either high school or college students to get some experience either in special education classrooms or with students with disabilities.

The goal is to increase the interest of future, college students or future teachers in pursuing a career as a special educator. These are grants offered to either districts or colleges to offer these experiential learning opportunities. In the last school year, 2,000 students participated in these ELOs.

And what we've done is we've surveyed these students, both before and after they participate, and asked, you know, are you interested in pursuing a career in special education? This is different, of course, than seeing outcomes. We are very much playing the long game here. You know, high school students in the very first year of this program are still in college, so we can't actually see the extent to which this policy has actually worked in an outcome sense, but we can at least ask students, you know, how interested are you in pursuing a career in special education?

And what we see, at least from the first year, is that while before participating in the program, 31% of students said they were interested in pursuing a career in special education, that increased to 45% after going through these experiential learning opportunities, which at least provides some kind of face validity to this idea that giving students an opportunity to experience special education and see what the job of a special education teacher might look like is at least a plausible way of encouraging more people to go into special education.

The second program is the accelerated Program for PK-12 Special Education. This is very explicitly intended for people who are already employed by a district. So, this is not a traditional preparation intervention. This is trying to provide an expedited pathway for folks already in districts, either paraeducators, or folks teaching without a full license, or general education teachers who might want to move into special education. It's an expedited pathway towards special education that certification that doesn't exist for other certifications.

So again, these are grants. These are grants to colleges to offer these accelerated pathways. The first cohort of completers just finished this past January. 142 current district employees received a full special education certificate through this expedited pathway. And we both talked to the coordinators of these programs and also surveyed completers of these programs. There's a lot of data, but I just want to share one. When we ask those completers the following question, how likely is it that you would have pursued a special education teacher certificate if the accelerated program did not exist? Over half of them said that it's either not likely or very unlikely they would have pursued a certificate in special education.

I don't have the data in these slides, but I see some chat action going by about cost. This was the most cited reason by far, is that it was much cheaper. In fact, for many of these folks, free, because their district paid for it, to get a special education certification through this expedited route, then it would have been had they gone through a traditional university pathway to get their certificate.

So, they are in the midst of preparing a second cohort of completers through this program, but there's at least some preliminary evidence suggesting that this has encouraged folks who would not have pursued a special education certificate prior to the policy to get a special education certificate and potentially stay in Pennsylvania public schools.

And then there's lots of initiatives intended to retain teachers related to the Hawaii findings. You know, retention is such a challenge in special education, and there's really a suite of challenges here, one of which is that very few special education teachers have someone who does their job in the same school available to mentor them.

So, the purpose of this project is to pair early career special education teachers with someone with the same job responsibilities who, either is a retired, teacher or teaches in another district, just provides some early career mentorship that can't happen… can't necessarily happen through traditional mentoring programs, because unlike other teachers, there's not another teacher in the school available to mentor, who has the same job.

And I would just say that overall, when we survey the folks who participated in these programs, we ask them, for example, you know, how much do you agree with the following statement? Participating in this mentoring project positively impacted my growth as a professional. Perceptions of this program are extremely positive, with every mentee, in fact, saying they either strongly agree or agree with the statement, and the vast majority of mentors saying the same thing about their mentee again. This is different than impact as measured by the kind of outcomes that we studied in the Hawaii context, but again, it's just some preliminary evidence that these programs may be having the intended impact on early career special education teachers that the state wants.

So, just to wrap up the sit and listen portion of this keynote address, we've come to the conclusion that, you know, despite the fact that some of the statistics about the special education teacher workforce look somewhat dire. There are some states that appear to be beating the odds and implementing policies and programs to try to address these shortages in special education.

And our recommendations for folks looking to address challenges in their own context is to first look at data from your own context. The nature of staffing challenges in special education look really different in different settings, in different districts. You want to work with data to determine, kind of, the nature of the problem in your local context, much like Pennsylvania is doing, address multiple elements of the pipeline. It's not sufficient to just retain special education teachers if there's no one coming in the door with a special education certificate, or more commonly, it's not enough to get a bunch of people in the workforce if they immediately leave. So, we need to think about this as kind of a dual approach to attract, prepare, and retain special education teachers. And then on the back end, again. It's a selfish framing, because we're data people, but it's just because it's selfish doesn't mean it's not true. We would encourage folks to use data to try to figure out what's working, what can be changed, and what is also not working. Some of the best investments are the ones we never make, or we choose not to make in the future because they're not working, and that's the kind of thing that data can tell us.

So, I'm going to pass back to Alli, who I believe has been monitoring the Q&A while I've been sharing my screen here, and we'll try to answer some questions.

Allison Gilmour: So, I have a couple that I have assembled from the chat, but if other people have questions, please go ahead and put them in the chat or the Q&A. So, we had a couple questions around dual certification, and sort of summing them up is, why are people with special education endorsements not teaching special education? And, I'm happy to go first on this, Roddy, happy to send it over to you.

Roddy Theobald: Please go first.

Allison Gilmour: Yeah, so I would say there's a couple pieces to this challenge. So, there was also a question about transitioning between special ed and general education. The prior work Roddy and I have done has shown that these dual-certified teachers are sort of, like, at risk for leaving special education. They leave, and move to general education at very high rates, which, so if states are pursuing dual certification policies as a way to increase their numbers of special education teachers, it may not be a successful policy, because these people tend to take general education positions.

But I think what's tricky is it's not clear that's a bad thing. Someone wrote in the chat, general education teachers are responsible for all students, too, and that is exactly right. So, having general education teachers who were special ed teachers and are dually certified could be really good for students. So why are… why are

they not teaching special education? Special education roles, as someone stated in the chat. Typically, these teachers are doing 2, 3, 4 jobs at once. They're teaching multiple subjects, they're teaching multiple grades, they're supporting general education teachers, they're coordinating related service providers. This is a different job than a general education teacher, and what is nice about the financial incentives like we see in Hawaii, is it at least recognizes that this is a different job. So, paying general education teachers and special education teachers the same amount might not make sense.

So that's sort of my take on this dual endorsement. It's sort of unclear if it is bad for students with disabilities when these folks are teaching general education. I think it could be a really good thing. It's something we need to use data and look at more, but it does definitely exacerbate some of the movement we see of special education teachers.

Roddy Theobald: Yeah, and the thing I'd add to that is, you know, I know my own context here in Washington best, so this may not generalize, but as I kind of previewed earlier, Washington is a state with a severe special education teacher shortage, and unlike a lot of states, really an oversupply of elementary teachers and teachers in some other subjects. It's actually quite difficult to get a job immediately out of your teacher prep program as an elementary, general ed, like a fourth grade teacher in Washington, we see that, you know, only about a third of recent graduates who have an elementary credential get hired immediately into a position, compared to, you know, like 75% of folks with a special education credential.

And an implication of that is that we hear from collaborators of ours who are in dual endorsement programs that this is not just a bug, but a feature of the system, where they will actively encourage people to get a special education credential. And the way one of our friends characterizes this, this is kind of a caustic way of describing it, but it is kind of the shorthand. They will say, you know, the special education credential is your ticket to a job, and then the general ed credential is your ticket out of special education.

And with that framing entering the workforce, perhaps it's no surprise that we see a lot of dual-endorsed candidates in the state begin their careers in special education positions and then move out once they have a couple years of experience and a position opens up.

Allison Gilmour: So, another question, someone mentioned that during the pandemic, Massachusetts allowed for emergency licenses, and Roddy, I know you have some work on that. And then we have a paper that recently came out looking at this in Pennsylvania I thought we could mention. But the question is.

So, emergency licenses are a policy for potentially increasing the number of special education teachers, but how many people actually get full certification?

Roddy Theobald: I will speak to Massachusetts. You… maybe you know the numbers off the top of your head for Pennsylvania, Alli. The proportion of emergency licensed teachers who have transitioned to full certification in Massachusetts. I don't remember the exact number, but it's dramatically lower than the state would have hoped. The key thing to understand about Massachusetts, I think, is there's really two completely different groups of emergency credential teachers in the state. There's the folks who, at the outset of the pandemic, had already completed most of their preparation, were in the middle of student teaching, the world shut down because of COVID, and they couldn't finish their student teaching, they couldn't take the MTEL, which is the licensure test in the state, so they got an emergency permit. But they were, to that point, kind of traditionally prepared teachers.

But then the policy stayed around for a couple years, and word got out that, you know, there's actually an incredibly easy way to get a teaching credential in the state. It doesn't require any preparation at all; you just go get an emergency license. And later cohorts of emergency license recipients looked dramatically different than those early cohorts. And this is relevant to the question, because a lot of those early cohorts of emergency license recipients quickly got their regular license. They actually waived the student-teacher requirement, they just had to pass eventually, and they got their license. Later cohorts have been much less likely to get regular licensure. And now that the state has ended the policy, a lot of those folks are now leaving the workforce, which, you know, there's a couple ways to think about that. One is that, you know, in a world with special education teacher shortages, we don't want to be losing anyone who's in special education classrooms. But on the flip side, you know, there's some evidence, and this is going back to the effectiveness piece of this. Not some evidence, there's overwhelming evidence that the average teacher on an emergency permit is less effective than teachers who have gotten full licensure. That's certainly the case in Massachusetts, based on our data.

And, you know, I think the state ending that policy, feels that folks who haven't transitioned off the emergency license may not… it may be worth losing those folks from the workforce, even in the state of current shortages.

Allison Gilmour: And then, in another context, in Pennsylvania, what we've seen is historically, so before any of these APR initiatives Pennsylvania put in place, about 33%, so about a third of folks who enter special education with an emergency permit stay or become certified in special education.

We're excited because our next steps are to look at if this accelerated program has changed that, if it's decreased the time to full certification, and it's encouraging more people to certification. But historically, it's about a third, and I think there's only one other study, who has looked at this in Virginia, and they also found about a third of their emergency permitted special education teachers ended up getting full certification.

All right, our, another question we got in the chat is, what is Pennsylvania doing that the rest aren't that make all of this possible? Like, why do their numbers look the way they do?

Roddy Theobald: You're in Pennsylvania.

Allison Gilmour: Yeah, so I will say, I think Pennsylvania has, rather than sort of, like, tweaking little things with their policies, decided to really invest in all aspects of the special education workforce at once. Makes it tricky for estimating what's working and what's not working, but they're attending to increasing interest in the field through these grants that help promote activities that help people learn about special education and students with disabilities at the college and high school levels. They're investing in these accelerated programs to get those people on emergency permits to full certification. They have another, they have the mentoring for folks who are currently in the field. They have other projects that we didn't even have time to talk about, focused on helping paraprofessionals finish out community college, so they're on their way to a bachelor's, that's on their way to certification. So, they've really kind of gone all in on addressing special education workforce challenges. And this is kind of interesting, because if you think about the data I shared at the beginning. Their challenges don't look as bad as some other states, but they, really have done a great job of looking at data, and they noticed an increase in emergency permit use, an increase in turnover, and really said, wow, this is an area where we need to invest, and we need to do a lot of work at multiple stages of supporting special educators. So, I think that's one aspect that's a little bit unique to Pennsylvania.

Roddy Theobald: And in terms of going back to these kinds of recommendations of considering local context, our big discussion with Pennsylvania is less around overall staffing challenges and the fact that there's considerable inequity in terms of these staffing challenges across different districts in the state. Urban, high-poverty districts in Pennsylvania, I'm sure you know what those are, have dramatically higher staffing challenges than other districts in the state. And to date, none of the state's initiatives are targeted to specific districts, or specific regions of the state, or specific schools, and that's something that may be warranted, given that even though overall the picture looks great, it's not uniform, right? There are very, very high turnover rates in those large urban districts in the state that could be worth targeting.

Allison Gilmour: Those are the questions I have. I do like this comment that just came in through the chat. Keywords, invest, respond to data. We couldn't agree more.

Roddy Theobald: Amen.

Allison Gilmour: Yes.

Amy Peterson: All right, thanks, everyone.