United States Senate Committee on Health, Education, Labor, and Pensions

ESEA Reauthorization: Teachers and Leaders

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The invitation letter to this hearing stated, "The purpose of the roundtable is to examine how we can support the work of states and school districts to get a great teacher in every classroom and a great leader in every school". The good news is that there are already many great teachers and great leaders in our schools. I am honored to be here today to represent them. Most of America's three million teachers strongly desire to be great and are spread throughout a continuum on their journey to reaching that goal. I'd like to share with the committee today some of the details of my own career path, focusing on how the support of my state, district, school and colleagues has helped me improve my practice.

I teach in Alamogordo Public Schools, in Southern New Mexico, the proud home of Holloman Air Force Base. Our 6,800 students are highly mobile and linguistically, ethnically, and socio-economically diverse. We are facing the economic struggles challenging the rest of the country. Yet I often end conversations with, "It's a great day to be a student in Alamogordo." Why? Our students are excelling because of the hard work and good decisions of the New Mexico Public Education Department, Alamogordo Public School District, and Sierra Elementary School teachers and leaders in response to federal requirements to improve K-12 education.

Becoming a great teacher is a journey that requires ongoing support at the Federal, State, District, and School level. That support takes the form of thoughtful decision-making that directly impacts my work in the classroom— well-crafted and appropriate content standards, and assessments that not only reveal what students have learned but inform my instruction so that I can help students meet the standards expected of them.

Teaching is a commitment to one's own learning and to the learning of students in one's care. Great teachers are life-long learners. The best support you can give a teacher is outstanding and effective professional development paired with district and building level instructional support.

Efforts like these are made more effective when there are ample resources to support them. My experience in my district has been that federal funds can make a significant difference when fitted to a district's own journey.

And finally, teaching and learning is hard work, but work that can be accomplished when the goals for students, teachers, districts and states are realistic. That hard work deserves celebrations of success.

My Early Years in the Classroom:

During my entire career there have been expectations for teacher performance. When I began teaching 23 years ago, I worked hard to understand and analyze the mathematics I taught. I started on the first page of my math textbook and followed a pacing guide so that I could finish the book by the end of the year. I created chants and mnemonic devices to help students memorize procedures for computation. "Dividing fractions, don't ask why, flip the second number and multiply." I would do a few examples and call on students who raised their hands to supply one word answers as I explained the traditional algorithm or procedure. Then the students worked individually at their desks on a set of similar exercises attempting to replicate my procedure as I circulated and answered questions.

In the first half of my teaching career, our state assessments were norm-referenced and the multiple-choice questions covered topics several grade levels below and several grade levels above the student's grade. This was necessary to compare students and determine an accurate percentile rank. These comparisons were used to tell parents, "Your child did better than 95 out of 100 others who took this test. We are going to place him in the top math class next year." My classroom assessments and communication with parents indicated a comparative, overall level of success for each student. I would say to a parent, "Your child is a B math student who consistently turns in all her homework." In these early years of my career, I had limited information about what my students knew or where I needed to focus my instruction.

I was evaluated primarily on whether I had covered the curriculum, not whether my students actually learned it. Teacher evaluations were an isolated event. My principal would schedule my annual evaluation – a visit to one 45 minute class. I would extensively prepare for this lesson. She would come in and sit in the back with her clipboard checking off the 65 indicators on the triplicate form. The results would be placed in my mailbox and my personnel file. These results did not improve my instruction or my students' learning.

My teaching, my testing, and my evaluation are all very different today and my students are the initial beneficiaries of these changes. My teaching colleagues need similar opportunities to grow, to reflect and to change and it is these opportunities that will result in "great teachers in every classroom." The long term beneficiary is our country as we strive to ensure all our students graduate high school – ready for college or high-skill work.

Rigorous Standards and Assessments:

New Mexico teachers and leaders have developed and adopted rigorous academic standards in core academic content areas. Our math standards, recognized by the National Math Panel, focus on the "doing of math" as well as the content of math at age appropriate levels. Students solve problems, evaluate the reasonableness and justify the answers. The New Mexico Standards Based Assessment (SBA) items are carefully developed to assess student knowledge on grade level standards using a hybrid of multiple choice and open-ended questions.

For students to be able to write about their thinking and answer the open-ended items on our state assessment, they need consistent experiences talking about their thinking during math instruction. Leading class discussions and helping students refine their understanding through communication is an important part of how I have improved my teaching. New Mexico's high-quality assessment appropriately measures my students' depth of knowledge of our process and content math standards.

The New Mexico state academic assessments provide data at the standard level for individual students. In the initial years of the assessment, my colleagues and I spent hours hand-calculating this data before we could use it to impact instruction. Now, Alamogordo Public Schools uses federal funding to provide access to a technology system called Alpine Achievement, which analyzes the data and presents it to teachers and administrators in a usable format, so we can use our collaborative time more effectively using the data to impact instruction.

Teachers in my school use the results from the NMSBA in three main ways. First, we analyze school-wide data for strengths and weaknesses. For instance, we discovered that our students performed poorly in one area of Data Analysis. Students need to be able to "formulate questions that can be addressed with data; and collect, organize, and display relevant data to answer those questions" – a critical skill for 21st century citizens bombarded by data. Careful research showed us our curriculum was weak in this area. We then developed mathematical tasks appropriate to each grade level. Teachers used these tasks in their classroom on a biweekly basis and discussed results in grade level meetings. Our average score on this Benchmark has steadily improved since this intervention, so we now have evidence that our students are becoming more proficient in this important skill. Secondly, individual teachers look at the data from the prior year's class for strengths and weaknesses in instruction. Personally, I have reflected on my practice; searched out professional development, books, and resources; and utilized my colleague's expertise to make improvements. Finally, with the support of an instructional coach, the teacher can carefully analyze the individual results for current students. This data helps the classroom teacher make instructional decisions, work with students individually, and focus small group work to strengthen understanding.

My school also uses benchmark (or "formative") testing throughout the year to make instructional decisions. This benchmark testing is also part of each teacher's professional development plan as we set goals to raise student achievement as measured by these quarterly assessments. These assessments gauge student growth and allow teachers the most benefit from analyzing results. Comparing this year's students with last year's students tells us nothing about student learning. I have to know my students' level of understanding when they enter my classroom, and it is my responsibility to move them along in their learning. If there is a desire to link teacher evaluation in some way with student results, we must use authentic assessment and a "growth model." I view assessment data as an essential tool in my teacher toolkit to improve instruction. A thorough understanding of the Standards required of my students and analyzing data in the context of those standards has helped to focus my practice upon my students' academic needs instead of the sequence of a curriculum pacing guide. This instructional shift has shown positive results in the classrooms of Alamogordo Public Schools. Data (knowing our students as learners) can help us become better teachers.

Supporting Effective Teachers Through Professional Development:

During my teaching career, cognitive science has made important discoveries about how people learn. The National Council for Teachers of Mathematics has developed and refined standards for math instruction for Kindergarten through Grade 12 students. The federal government, through the National Science Foundation, provided funding to develop Standards-Based Mathematics Curricula for elementary and middle school students. This research and these resources have strengthened our understanding of the art and science of teaching. They are only useful, though, if they impact the daily instruction of America's classrooms. My experience is that the best support you can give a teacher is world class professional development, paired with district and building level instructional support. The pivotal experience in my own professional development came from Math Solutions. My district sent me to a five day summer course, *About Teaching Math*. That course changed my instructional practice more than any other single event in my career. When taking the *About Teaching Math* course, I realized students needed to make sense of the math, not just repeat exercises. The instructors helped me see my role as a facilitator of understanding. In subsequent courses and through the study of instructional resources, I have learned specific strategies for classroom discussion to help students communicate their understanding and, as importantly, their confusion. I continually strive to improve my teaching strategies, my understanding of how children learn, and my content knowledge. All good teachers strive to become better teachers, and I urge the Senate to support us in these efforts by funding effective professional development.

What I have learned is that great teachers understand the direct link between their own learning to their students' success and that great teachers never stop learning. One thing I know for certain is that I will never "know it all." I find myself, like my students, using technology to connect with colleagues and experts across the country and around the world. My current focus is on assessment: How do I find out what students know, how do I keep track and communicate this information, and how does it impact continuing instruction in my classroom?

Locally Supporting Change and Raising Quality:

In the last few years, Alamogordo Public Schools has developed a very supportive environment for reflective teaching. Wisely using federal funding, we established best literacy practices and a local elementary math initiative. We have established instructional coaches to guide teachers and allowed classroom teachers many professional development opportunities. These included attending professional conferences and week-long summer programs, bringing experts to our district both live and through web-based interactions, and creating time for teachers to collaborate. At grade-level meetings, classroom teachers, the instructional coach, and the principal analyze student data and adjust our goals and plans using the Plan, Do, Study, Act model. We have monthly Continuous Improvement/Advisory days to collaborate within our school and with our partner schools through the Professional Learning Community model as we refine our Best Teaching Practices and implement a standards-based math curriculum. Through vertical articulation meetings, we determine how prepared the students are, identify gaps in prerequisite knowledge, and plan how to address those gaps. We utilize collaborative coaching, videotaping, and journaling, and we discuss professional resources to strengthen our practice. Alamogordo Public Schools is implementing Standards-Based Report Cards,

annually adding one grade level. We are asking hard questions and taking steps toward increasing student achievement and accurately reflecting that achievement. Today my classroom assessments and conversations with parents focus in depth on what each individual student knows. "Your child is great at computation. We are working on building his geometry skills. At home you might encourage him to play with building toys or try a game for his video system like Tetris."

Finally, the evaluation of teachers has also evolved over the years in which I have taught. Alamogordo Public Schools has worked to help principals understand their roles as instructional leaders in their building. My principal, Paul Sena, is a master at balancing the many roles of an effective elementary school principal. He often visits my classroom during instruction in a non-interruptive way. He visits with students and has a clear picture of the instruction happening in our building. Mr. Sena supports instructional changes as I work toward being a great teacher, in part because; he is an informed and active participant in this reform. My instructional coach observes my teaching and together we reflect on ways to increase my effectiveness. I believe the current evaluation process in my district allows me to be reflective and continually improve my practice.

In other words, my colleagues and I are given opportunities to share, to grow and to interact about key issues of curriculum, instruction and student achievement. We make effective use of data, we focus on pedagogical practices, and we hold ourselves accountable for every student's success. Because our district has high expectations, we rise to and above those expectations and our students are the winners.

Engaging and Empowering Students:

If you walked into my classroom today and asked, "Where's the mathematician in this room?" all of my students would raise their hands. I believe that is the greatest evidence of the effectiveness of my teaching: my students see themselves as doers of math, as readers, writers, and members of a community working together towards a common goal of learning. They share ideas, listen to each other, and together build understanding. In my classroom, math is explored using worthwhile, engaging, and authentic mathematical tasks. I use explicit instruction and modeling to help students communicate understanding, clearly represent thinking, and justify reasoning using appropriate math vocabulary.

My students have very diverse backgrounds. We celebrate the contributions of all students, but I am also careful to explicitly teach and reinforce mathematical and situational vocabulary. I employ a variety of concrete and technology tools to introduce and build concepts and allow the students continued access to those tools. I facilitate student work as individuals, partner pairs, cooperative learning groups, whole group, and homogeneous intervention groups.

Conclusion:

Several years ago, as my class prepared for the state assessment, I reminded my students that the test was a chance for them to show how much math they had learned this year. A student interrupted stating, "And we know a lot of math!" I chuckled, the class giggled, and we all relaxed as I began to

read the directions. Although the student had interrupted me, she was right, and the reminder to everyone was well-timed. Starting the year new to our school with skills below her grade level, this student had worked hard to rise to the level of expectations in my classroom. Now as the state test arrived, she felt confident and prepared. When results arrived, she earned a proficient score for the first time. School-wide, our students' scores in Alamogordo continue to rise each year. Our school is doing a great job of teaching the diverse children of our community. However, as 2014 and the 100% proficient requirements of the current legislation loom, even a highly successful school like mine begins to worry. As a mathematician and an educator, I believe that 100% proficiency is not only unrealistic but also counter-productive. On any assessment, no matter how well designed; there will be anecdotal reasons why a few students' performance does not realistically represent their understanding.

While the current Elementary and Secondary Education Act (No Child Left Behind) has its flaws, it is moving in the right direction of improving education for every child in America's schools. Like most of our teachers, ESEA is on that journey to becoming great. And with the right support and a lot of hard work, we will soon be able to say, "It's a great day to be a student in America's Public Schools."

I am grateful for the opportunity you've given me to address the committee. I took time out of my classroom this week because I think it is critical for the leaders of our Nation to hear from the leaders of our future. Thank you very much.