

Proceedings of THE STATE FORUM ON TEACHER EDUCATION IN ARIZONA

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Proceedings of

THE STATE FORUM ON TEACHER EDUCATION IN ARIZONA

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Education Policy Studies Laboratory

College of Education

Division of Educational Leadership and Policy Studies

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THE STATE FORUM ON TEACHER EDUCATION IN ARIZONA

On February 13-14, 2003, in Phoenix, an invitational meeting of state leaders was convened by Arizona State University and other public and private sector partners to define Arizona's critical need for teachers and to frame a collaborative response for recruitment, credentialing, and retention of high quality teachers for Arizona classrooms.

Arizona State University's Morrison Institute's January 2003 report on demand and supply of teachers in Arizona provided the main background reading and research for the forum participants. Other relevant research and information on credentialing and quality teachers was also provided to forum participants. The forum was fiscally supported by private sector partners including the Bank of America, INTEL, and Bashas'.

An advisory committee consisting of a broad spectrum of Arizona leaders from business and industry, community and state organizations, government, education, and the general citizenry helped plan the event to ensure the appropriate representation of invited forum participants. All state institutions of higher education (i.e. ASU, ASU East, ASU West, NAU and UofA), private universities as well as community colleges, school districts, and charter schools participated.

The format included an evening reception and dinner on February 13th followed by discussions on February 14th. A centerpiece of the forum was a presentation of the Morrison Institute study. Arizona State University President, Michael Crow opened the discussion with a keynote on the evening the 13th. Dr. Susan Sclafani, Counselor to the Secretary of Education of the U.S. Department of Education and the newly-elected Superintendent of Public Instruction for Arizona, Tom Horne, gave remarks.

The expected outcome of the State Forum on Teacher Education in Arizona was to explore issues related to Arizona's teacher shortage and to frame collaborative responses that ensure a continuing supply of high quality teachers that meets the growing demand throughout the state.

EXECUTIVE SUMMARY

The State Forum on Teacher Education in Arizona was held at The Pointe/South Mountain Resort in Phoenix, Arizona on February 13-14, 2003. The purpose of the conference was to address the issues of teacher preparation, recruitment, and retention in Arizona, now and over the coming decade. One-hundred-and-seventy-eight people, representing K-12 schools and school districts, corporations, government, media, and universities attended the forum.

Conference speakers and conferees joined in discussion groups to outline an agenda for improving the supply of quality teachers in Arizona.

Eugene Garcia, *Dean, Arizona State University College of Education*, hosted the event, explained the importance of the subject, welcomed attendees, and introduced the speakers. At the conclusion of the conference, he charged the group to continue the dialogue on this important topic.

Michael Crow, *President, Arizona State University*, urged the Arizona State College of Education and other schools of education to improve the quality of teachers they produce by enhancing the value and status of teacher preparation, opening the schools to a broader range of students, strengthening the rigor of teacher preparation programs and cementing deeper ties with graduates.

Alex Molnar, Professor and Director, Education Policy Studies Laboratory, Arizona State University, reported the conclusions of a Laboratory report, which pointed toward collaborative models and an interdisciplinary approach to teacher education.

Rob Melnick, *Director, Morrison Institute for Public Policy, Arizona State University*, presented results of "Is There a Teacher Shortage," the institute's research report, which found that while Arizona has a slight surplus of teachers overall, teacher shortages exist and will worsen in certain regions and subject areas. To increase the supply, he recommended increased recruitment efforts, improved compensation, improved classroom environments, and better data tracking.

Susan Sclafani, counselor to US Department of Education Secretary Rod Paige, made the case for the No Child Left Behind Act of 2001 (NCLB) as a tool for improving student achievement and addressing the issues of quality in education.

Tom Horne, Superintendent, Arizona Department of Education, referring to the data presented in the Morrison report, suggested there is a teacher shortage, calling for the deletion of artificial barriers to the profession, and said his office would work to see that education schools strengthen their course offerings.

In small group meetings following the public sessions, conference participants addressed a series of questions. While not reaching a formal list of recommendations, discussions cited these important issues:

- Acknowledge that a teacher shortage in specific disciplines and regions of the state is real.
- Reject the claim, not supported by research, that content knowledge itself was an adequate measure of teacher quality.
- Acknowledge that there are differences in students that require different teaching methods.
- Acknowledge that the narrowing definitions of test and curriculum can threaten teachers who get results through creative means.
- Define quality teaching to meet the public's need for accountability.
- Act on recruiting opportunities, in elementary and secondary schools, in community colleges, in four-year colleges, and in mid-career.
- Reexamine and revise education curricula to balance theory and practice.
- Expose prospective teachers sooner to the environments in which they will teach.
- Move colleges of education to a client-service model, so that they seek feedback from schools that hire their graduates and act on the information they receive.
- Acknowledge that compensation and working conditions matter, and improve both to attract and keep teachers.
- Explore mechanical and procedural barriers to recruitment, transfer, and rehiring of teachers.
- Foster collaboration among all levels of the education system to improve teacher preparation.
- Develop and implement policies that encourage and support teachers to be lifelong learners of their profession.

DISCUSSION GROUP RECOMMENDATIONS

Introduction

Following the four presentations, conference attendees were divided into five discussion groups. Each group addressed the same list of four broad questions:

- How do you react to the information presented?
- How should Arizona improve in recruiting teachers?
- How should Arizona improve in preparing teachers?
- How should Arizona improve in retaining teachers?
- What are the central issues regarding teacher education and the K-12 educational environment in Arizona?

These questions produced a number of thoughtful responses. What follows is a synthesis of the group discussions, organized thematically.

Framing the Issues

Is there a teacher shortage or not? The Morrison Report's answer is, "yes and no," and the report's fine print left forum participants wary. Clearly, participants said, media reports that settled for a simple "no" missed the point of the report: that in certain regions of the state and in certain disciplines, there is a teacher shortage. Moreover, by examining only the issue of quantity, not quality, the report probably understates the situation. Participants worried that the report's summary assertion of no overall shortage would blind policymakers to specific shortages that already exist.

The existence or not of a teacher shortage is only one dilemma, however. Fundamental to any discussion of teacher quality is the definition of what quality is – how it is defined and how it is measured. Students and teachers can readily identify people whose personal characteristics make them effective teachers, participants noted. Indeed, one seemingly simple measure of quality offered by Dr. Sclafani of the US Department of Education – that content knowledge by itself was an adequate measure of teacher quality – was met with great skepticism. Teachers don't teach content, they teach children, as one participant put it, in words echoed by several groups.

Other Department of Education claims met with skepticism as well. Some participants questioned the validity and balance of the research data cited in support of *No Child Left Behind*. Participants called for scrutiny of the federal agenda for high-stakes testing and the narrowly defined research on which it is based. Studies and their sources need to be examined critically, and longitudinal data should be collected and studied. Reacting to the admonition that educators should follow the medical profession's example and rely on research to guide their practice, participants

pointed out that medical researchers examine side effects; policymakers, meanwhile, appear to ignore such issues as the unintended negative consequences of policies such as high-stakes testing. Educators, conference participants agreed, need to stand up for the reality that there are differences in students that require different teaching methods and counteract the narrowing definitions of test and curriculum that can threaten teachers who get results through creative means. One solution doesn't fit every child, or every classroom.

Nevertheless, defining a quality teacher is important for evaluating teacher education programs. As one participant argued, it can be widely agreed that certain strategies do work better than others, and the profession should focus on what works.

As a profession, however, educators need to understand and satisfy the public appetite for accountability. They need to produce solutions and alternatives and take ownership of the problem. Administrators need to understand that they can comply with NCLB without being rigid. Indicators for quality need to be expanded beyond certification. Teacher evaluation must be improved, making it deeper than just one or two visits a year, incorporating consistent professional development. Tenure reform should be examined so that bad teachers can be identified and dealt with.

"Teaching is rocket science," one participant concluded. "It is a highly complex endeavor conducted in highly varied environments. It is one of the toughest jobs there is."

Recruiting New Teachers

The opportunities to recruit people to become teachers begin early in life. Many students who go into teaching know early that they want to be teachers, it was noted, and more can be done to identify prospective teachers early. By the time students are high school juniors and seniors, they should be given opportunities to work in schools to nurture their interest in teaching.

One hurdle to sparking interest in young people, participants noted, is the scorn often heaped on teachers by ideological critics of the education system. Such attitudes may turn off younger generations who might otherwise consider entering the field. Students need to be engaged by telling them the positive things about the profession.

Additional recruiting opportunities surface later at the college and university levels. There, the point was made, efforts to increase the pool of potential teachers should not be limited to colleges of education. The pool of undergraduates specializing in content areas for which more teachers are needed – such as math and science – also must be increased.

Finally, there are opportunities to draw teachers from other fields in midcareer. Here, participants noted, the current economic slowdown could expand the number of professionals available, enabling preparation programs to be more selective. Post-baccalaureate programs, however, need to be structured so that they can be completed quickly to attract capable professionals from industry.

Preparing Teachers

Discussions about how teacher preparation might be improved ranged widely. There was a clear and widely held belief that while content knowledge is necessary, it is not sufficient. Two years of preparation in colleges of education is not enough; preparation and training must continue on the job, via mentoring for new teachers and continuing professional development. Professional development, however, must be tailored to school sites and specific school problems; a one-size-fits-all approach doesn't work. (More on professional development will be discussed in a subsequent section.)

The education curriculum also came under discussion, but with fewer consensuses. One point made was that, while colleges of education may need to change how they operate, they cannot fix other colleges responsible for teaching content or subject areas. As to education colleges themselves, participants said the best preparation for teaching should balance training in theory and in practice with exposure to real-world teaching conditions for students while they are still enrolled in universities. Some participants wanted more training in how to teach in a standards-based environment and in implementing the AIMS test and less in theory – others sought more practice in implementing teaching theory and classroom management theory, for example. There was a call, as well, for better incorporating research and theory in teacher preparation.

The need to expose prospective teachers to the real world of teaching surfaced repeatedly. Participants also urged early field exposure involving prospective teachers in the life of schools early. One reason is to help students clarify the depth of their desire to teach and their capacity to do so. Sorting out students unsuited to the profession will help improve the quality of students who remain in teacher education programs. Participants also suggested teaching programs should encourage students to work in disadvantaged schools and to adequately prepare them for the task, in order to reduce the "shell shock" that often afflicts teachers trained in affluent schools who then are assigned to more disadvantaged ones. It was hoped that this might also break the cycle – noted by many participants in several groups – in which good teachers migrate toward higher paying, more affluent schools at the expenses of poorer ones.

Teaching students can get the proper exposure in various ways: for instance, by earning service-learning credits through tutoring. Prospective teachers must be put in classrooms sooner, assigned to tasks such as tutoring (with supervision), "not just sitting in the back," as one participant put it. Current requirements for a minimum of six hours a week in teacher internship programs are not enough, it was argued. Moreover, schools and school districts need to develop more objective guidelines for placing interns, to ensure that they are placed with teachers who model effective teaching in the classroom. Teaching interns should be paid, participants added.

The need to understand the real world in which teachers work surfaced several times during discussions in varying forms. In one group, participants asserted that teachers need a thorough understanding of special education and special education law. Teachers-in-training need preparation in classroom management in environments in which students come from troubled families, including ones where parents are drug users, and in which students may be severely learning disabled – there also were calls for a class outlining the political climate of education to better prepare students for the difficulties both in the classroom and beyond.

Besides needing a more realistic understanding of their future students' lives, teachers need increased cultural sensitivity, especially for Anglo teachers in schools with large Hispanic or Native American populations. In one group it was observed that Arizona's large Hispanic population makes providing English as a Second Language education especially vital, and that teacher training programs should make ESL training mandatory rather than an afterthought. The problem of inadequate ESL training is magnified by the fact that students with limited English proficiency are usually concentrated in schools with less qualified teachers who lack familiarity with ESL training techniques. For all the challenges that impoverished and culturally diverse student populations may present, however, one speaker urged that all teachers should be ingrained with high expectations for all children and the belief that all children can learn.

Finally, there were suggestions that colleges of education should adopt a client-service model of operation. Colleges were criticized for failing to seek sufficient feedback from schools to which they send new teachers. Education colleges should ask school districts what they want, participants said. When district personnel directors prefer certain preparation programs, education colleges should ask why, recognizing the school district as a client. Under a full adoption of such a model, districts would move from retraining teachers to identifying skills they need and communicating those to colleges of education, which would use it to steer their teacher-training programs. Innovations, such as on-line teacher education programs, which are growing rapidly, should be encouraged. To make this model work, it was noted, schools, school districts, the Department of Education, and universities all must need to improve collaboration and cooperation, sharing models of success and better integrating their efforts.

The Economics of Teaching

Money matters. Casual assertions by policymakers that spending money "is not the answer" were met with sharp criticism; participants strongly rejected the assumption that highly qualified teachers can be recruited without adequate funds to pay them.

"Money does matter," several participants noted – compensation and benefits need to be high enough to attract quality candidates. Paying teacher interns would help students overcome financial burdens and lower barriers that teacher education programs currently impose. One participant suggested salary variance may be important; the best students not only look at just starting salaries, but also look at salary ranges in a profession – yet among teachers, ranges are narrow and don't reflect quality. The contrast was drawn between regular certification – not particularly rigorous – and national board certification, which is very rigorous, yet is not rewarded with sufficiently higher pay scales.

Other forms of compensation also need scrutiny, participants said. Although the profession still predominantly employs women, several participants contended the unique needs of women workers, such as child care, policies that allow them to return to the work force at competitive rates of pay after taking time out for childrearing, and for policies such as job-sharing, which some districts offer willingly yet others refuse to consider.

In rural and low socioeconomic schools especially, incentives are needed to change behavior, it was argued. One approach might be premium pay for high-need districts; another might be incentive programs to encourage veteran teachers to apply to rural districts or to earn an ESL endorsement.

District policies that recognize only four or five years of experience in setting pay levels, even when teachers may have worked 10 or 15 years, may make it less cost-effective for experienced teachers to return to the classroom. Such policies also are a barrier to recruiting teachers from other states if transferring would result in an effective pay cut. It was observed generally that current practices, policies, and funding levels mean school districts cannot afford to pay for teacher experience; the system as currently structured rewards teachers for leaving difficult schools – less desirable schools with much greater challenges – and moving on to more affluent, less challenging ones when they have more experience.

In summary, higher top salaries, higher entry-level salaries, and increased pay for teachers in their fifth year will all help improve retention, participants asserted. They can be supplemented by other policies, such as tuition reimbursement, on-site

child care, and flexible schedules. Quality teaching comes at a price. The state needs to hold teachers to high standards, but it also must be willing to pay for it.

The Education Environment

Throughout the discussions, in response to many questions, the issue of the environments in which schooling and teaching take place – and the larger environment in which education policy is enacted – arose again and again. While much of the discussion took place in the context of impoverished urban school districts, some participants argued that the difficulties faced by rural schools were inadequately addressed in the formal presentations.

Like money, working conditions matter. Teachers, it was argued in several groups, need respect from the community and from administration, and the definition of what they do need should be broadened beyond classroom instruction. Teachers need mentoring in their first three years, but they also need freedom and not forced into a scripted performance. As one participant observed, cheap and broken supplies and materials send students the message that they and their education are not important. Teachers need opportunities for staff development and relief from out-of-pocket costs for continuing education. Positive school communities where people want to teach and incentives such as opportunities for professional development and release time, it was argued, will entice people into the field.

Despite the consensus on the importance of environment in keeping teachers or driving them away, participants enumerated a number of trends ignoring that reality. For instance, the Morrison report's call for increased data collection seemed to contradict the report's own suggestion that teacher paperwork be reduced in order to attract and retain more teachers. At the same time, participants understood that there were limits to being able to carry out the Morrison recommendation for reduced paperwork; not all paperwork – such as grading papers and other routine tasks related to instruction – can be easily reduced or eliminated.

Beyond the environment of individual schools is the larger political and media environment in which schools operate. The first step in retaining teachers is for schools, communities, and teachers to build a climate and culture of continuous respect, one participant said. Participants lamented unfair media criticism that has diminished respect for the profession and driven some good teachers into other fields. Teachers need support, starting with adequate supplies in their classrooms, participants said. Teachers need not to be treated like students, which occurs when their time is micromanaged, de-professionalizing them. Reducing teacher judgment and narrowing teachers' power to make decisions about the children in their care, *No Child Left Behind* exacerbates this problem; so do highly scripted curricula imposed by education agencies acting as regulators.

No Child Left Behind, contrary to the assertions of its supporters, has a questionable research base. Increasingly regulatory high-stakes testing contradicts the long-held understanding that tests are a narrowly focused assessment tool. Uneven funding of schools, uneven imposition of standards, and rising numbers of limited-English proficiency students entering Arizona's K-12 system all further worsen the problem. The profession needs to grapple with the inherent contradictions in the current professional environment: the imposition of federal standards while funding and political control remains local, the demands for less paperwork and the requirements to track more data, and the limitations of presuming that content knowledge is enough to determine teaching ability. To ensure both quantity and quality of teachers to meet the needs of all of Arizona's students, teachers need to stop trying to do more with less, participants said.

Good teachers choose to teach at good schools, as one participant put it. Schools need to make their environments as supportive for teachers as possible; those that do so can retain teachers even when openings occur at more prestigious schools. The cycle in which new teachers gain experience in rural or less-desirable urban schools, then leave for openings at more affluent schools, tends to hurt teacher quality at the less-desirable schools and should be broken.

Procedures and Practices

Conversations about procedural and practical issues that affect teacher recruitment were far more limited in scope. In several groups it was observed that Arizona poses barriers to recruiting teachers, particularly from out of state. They include administrative and statutory limitations, pay scales that discourage applicants from other states, and an absence of reciprocity agreements with other states.

Participants called for systematizing recruitment: undertaking statewide and out-of-state professional recruitment campaigns; publicizing the state's web site for teacher recruitment, possibly to a national audience; and hiring professional reference checkers. To fill the need for teachers to work with ESL students, it was suggested Arizona seek candidates from Mexico. Certification and background checks need to be streamlined, some participants suggested.

Partnership, Collaboration, and Teaching as a Lifelong-Learning Profession

Throughout the discussions, and in response to a wide range of specific issues, participants called for partnerships and collaboration at all levels: in recruitment, preparation, placement, and lifelong professional development of teachers. Universities and community colleges should collaborate, especially to draw more

needed minorities into the teaching profession. School districts and universities should collaborate, participants said, in many ways. For example, it was suggested that school districts should encourage teachers by committing to hire education students once they complete their preparation programs. Such partnerships between school districts and teacher preparation programs to provide job-placement opportunities for graduates may, in turn, encourage more students to complete their courses of study and begin teaching. Finally, it was urged that instead of competing for a shrinking pool of desirable teaching candidates, school districts should be encouraged to pool their recruiting efforts for the good of the profession.

Stakeholders in education must work together to improve education: new teachers should be encouraged to collaborate with veteran teachers, and teachers should work together with college instructors. University faculty need to connect more often and become more involved with K-12 teachers and their classroom environments. Researchers and teachers need to work together to implement research findings regarding teacher preparation. Teachers should learn about research and take its findings into account as they prepare for the classroom. Universities and school districts need to improve collaboration so they can together improve teacher qualifications.

A new model of extended training is needed so university graduates are recognized as good novices who need to be brought to a competence and a level of expertise over their first five years of teaching. Preparation, participants said, isn't the universities' function alone. Unlike most other professions, new teachers typically get the worst, most difficult assignments; other fields ease new people in. Research shows five-year preparation programs work, and they should be supported. People who have completed a fifth year of preparation are significantly less likely to leave the profession.

Indeed, whatever its length, the academic training of a teacher is only the beginning. Participants embraced the argument that teacher preparation doesn't end when the teacher takes his or her first job, but continues throughout the teacher's career. Education needs to be professionalized, one participant argued, making teacher preparation one of the most rigorous areas of study, given the complexity of skills the occupation demands. While certification is not by itself an indicator of quality, content-related certification is an important indicator of content knowledge. National Board Certification, it was noted, offers an opportunity to professionalize teaching through professional development.

Better professional development also can help increase a teacher's effectiveness and commitment to the field. Both collaboration and personal reflection are important products of professional development, and room needs to be made for them. National board-certified teachers observed that the certification process helped them reflect on their behaviors that contributed to quality instruction. Peer and

financial support for teachers seeking to become national board certified should be improved. School leadership, another participant asserted, should be measured in part by the extent to which it promotes from within the professional growth and development of teachers. Teachers look to superintendents to set an intellectual climate and stimulate teamwork.

Participants called for making teacher evaluations significant, focusing on feedback that can expand a teacher's practice. Teachers need more performance conversations about their practice. They also need to find ways to combat the isolation of teaching, through teams and other means. First-year teachers especially need to be mentored and brought out from the isolation they often feel.

Continuing education that keeps teachers abreast of new information is vital. It also improves recruitment, retention, and quality. For those reasons, participants said, school districts should offer incentives, such as tuition reimbursement, for continuing education.

Professional development needs to be integral to the entire teaching experience, all day, every day, and for a teacher's entire career. Flexibility is paramount in all regards – those who evaluate schools and school districts need to acknowledge that all children are not the same and cannot be expected to live up to the same expectations. At the same time, educators must be willing to change the methods they use to teach if more effective methods present themselves. As one participant observed, "Preparation is not limited to four years; it is a lifetime."

APPENDIX A: PRESENTATIONS

Eugene Garcia, Dean, Arizona State University College of Education

The State Forum on Teacher Education in Arizona was hosted by Dean Eugene Garcia. Dr. Garcia explained the importance of the subject, welcomed attendees, and introduced the speakers. At the conclusion of the conference, he charged the group to continue the dialogue on this important topic.

Michael Crow, President, Arizona State University

Arizona State University President Michael Crow was the first presenter for the forum. In his remarks, Dr. Crow first acknowledged the accomplishments of teachers in the US who have produced participants in a thriving economy, the highest level of college graduates in the world, a generation with high levels of social mobility, and citizens in a functioning democracy of 300 million people – all accomplishments, Dr. Crow said, that could not be measured by test scores.

The American public education system and its teachers, Dr. Crow said, work best when things are simple, such as when families are functioning well and supporting their children who are all in themselves students who want to learn. In large cities and in states like Arizona, families have trouble when things get too complex – a complexity that results from high rates of unpredictable growth, large numbers of new immigrants, high levels of economic segregation, social and moral conflict over how and what to teach, and large numbers of weakened home environments. These complexities have produced poor performance among students in these ways: of 20 high school freshmen 12, graduate from high school, five of those graduates enroll in college, and only two will graduate with a college degree.

Teachers are "the frontline troops in the contest for continued social and economic success," Dr. Crow said. Their preparation and the preparatory environment is a matter which needs "some serious rethinking... and self analysis..."

To that end, Dr. Crow urged schools of education to:

- Improve the value and status of teacher preparation on college campuses.
- Open teacher preparation to all students, helping to create education professionals who are able to move in and out of the field.
- Become central nodes, educating all, not isolated communities of teachers.

• Focus on preparing students to teach in all settings: home schools, private schools, charter schools as well as public schools.

ASU in particular, he said, should:

- Strengthen connections with graduates, so education professionals have a tie- line to the university for their entire careers.
- Enhance education of its teachers to a breadth and rigor matching the complexity of the problem.
- Reach out to non-traditional teachers, including caregivers and parents who intend to home-school their children.
- Take ownership of the problem in the profession, recognizing it is not merely theoretical as well as recognizing the university's need to evolve and adapt to present challenges.

Alex Molnar, Professor and Director, Education Policy Studies Laboratory, Arizona State University

Alex Molnar, Director of the Education Policy Studies Laboratory (EPSL) at Arizona State University, summarized the implications of a report on Arizona's teacher shortage produced by the Morrison Institute for Public Policy at Arizona State University, by saying there aren't enough qualified teachers in Arizona to provide a high quality education for all of Arizona's children. While there is a "delicate balance" between the demand and supply of teachers overall, the balance disappears when you get down to specifics. In western Arizona, for example, the demand for teachers is expected to run ahead of the supply and in critical specialties such as special education where there are already shortages.

In the short term, retaining qualified teachers and convincing qualified teachers who have left the profession to return to the classroom is likely to be the most effective approach, Dr. Molnar said, summarizing the findings of the EPSL's recent report, *Recruiting, Preparing and Retaining High Quality Teachers*. New York City has virtually eliminated its teacher shortage by paying teachers higher salaries. Working conditions are also an important factor. Good teachers want to make a difference and are attracted by smaller classes in which they can get to know their students and tailor their instruction to student needs by district policies that provide them the autonomy to use their professional expertise effectively, by administrators who are knowledgeable and supportive, and by assessment systems that help improve instruction.

Arizona currently offers teachers low salaries and large class sizes along with standards and testing policies that restrict teacher instructional decision making and impose an abundance of paperwork, Dr. Molnar said. To reduce the severity of teacher shortages in the short term, key elements of current Arizona education policy must change.

In the long term, the research surveyed in *Recruiting, Preparing and Retaining High Quality Teachers* argues in favor of Dr. Crow's view that the university and its programs should be engaged in the community. Arizona colleges of education should collaborate with K-12 school districts to develop and strengthen programs to introduce students to teaching as an attractive career choice in these ways: collaborate with community colleges to cast a wider net and increase the diversity of the pool of potential teachers and collaborate with innovative programs within the university to broaden and deepen the experiences of education majors. At ASU, for example, much could be learned from the Bachelor of Interdisciplinary Studies (BIS) program. BIS students with academic specialties as diverse as Spanish and biology are taught to synthesize knowledge from disparate disciplines and apply it in real world situations through internships in businesses, government agencies, and non-profit organizations. They are, Dr. Molnar said, expected to exhibit many of the skills we would want to see in high quality teachers, such as: content knowledge, creativity, and the ability to apply what they know in real world situations.

The success of the BIS program underscores the point that in the real world no single skill or approach works in all situations, Dr. Molnar said. Good teaching thus reflects not only the talent of a teacher but the context within which she or he is teaching. Effective teachers need more than subject matter knowledge. Teachers should have command of a variety of approaches to teaching and the ability to synthesize and apply their knowledge appropriately in different settings.

Collaboration between colleges of education, community colleges, and departments within the university is the key to increasing the number and quality of Arizona's teaching corps over the long term, Dr. Molnar concluded. This will only be possible, however, if state policy makers are also willing to collaborate and frame policies that encourage and support colleges of education as they attempt to do so.

Rob Melnick, Director, Morrison Institute for Public Policy, Arizona State University

Rob Melnick, director of the Morrison Institute for Public Policy at Arizona State University, presented the institute's recent findings in its study of whether Arizona faces a teacher shortage.

On the surface, Dr. Melnick reported, the labor market for teachers will be tight over the next eight years, a finding that has led some in the media to suggest there is not a teacher shortage. The reality, however, is more complicated. In certain regions of the state, and in certain subject areas, teacher shortages already exist and can be expected to worsen.

Several variables affect the supply and demand of teachers in the state. Variables influencing demand include student population growth and teacher attrition – the latter from retirement, relocation, or leaving the profession. Supply is primarily determined by the number of new teachers entering from teacher preparation programs, teachers immigrating to the state, and teachers returning to the profession after time away from it. The report projects a small surplus of teachers – 1.2 applicants per position – over the next eight years. Those numbers are estimates, however, and other variables could easily change the number of teachers in the profession over that time.

Regions of the state where shortages are most likely to occur include fast growing rural areas of western Arizona, exurban Phoenix, and urban Phoenix. Subject areas that are most likely to experience teacher shortages include special education and Limited English Proficient trained teachers

Dr. Melnick noted that a number of studies have sought to answer the questions of why teachers leave the profession and what would bring them back. Along with personal reasons, starting a family (24 percent) and retirement (21 percent) constitute the leading reasons teachers leave the profession – less frequently, but still in sizable numbers, teachers cite classroom environment among reasons for leaving. Other factors influencing teacher attrition include stress and disillusionment (16 percent), frustration with administration and bureaucracy (6 percent), lack of respect or support (3 percent), and salary (10 percent).

Some research has shown that a significant number of teachers would consider returning to the classroom if certain conditions prevailed. While only one in 10 teachers cited compensation as their reason for leaving the field, the leading potential inducement for teachers to return to the classroom is pay. Among inactive teachers, 72 percent said increased pay would lead them to return. Fewer said reduced class sizes (66 percent), reduced paperwork (56 percent), improved student discipline and safety at school (54 percent), and tuition reimbursement for continuing education (53 percent) would facilitate a return.

Arizona teachers' salaries, which average \$39,973, fall below the national average of \$44,449, Dr. Melnick reported. Proposition 301 did improve matters for the state, moving compensation from 33rd in the nation to 26th.

Dr. Melnick said that four key factors could help Arizona increase its supply of teachers:

- Increased production and recruitment, targeting critical areas of need, stepping up out-of-state recruitment, and removing or streamlining certification requirements.
- Improved compensation, offering tuition reimbursement, premium pay for teaching in difficult classrooms, and funding non-student days.
- Improved classroom environment, including reduced paperwork for teachers and improved discipline and safety in schools.
- Better data tracking, for example, through a database that might follow teachers moving into the field, attrition, certification – as well as improved general data collection.

Susan Sclafani, counselor to US Department of Education Secretary Rod Paige

Susan Sclafani of the US Department of Education addressed the role of the *No Child Left Behind* Act of 2001 (NCLB) in improving student achievement and addressing the issues of quality in education.

The act, Dr. Sclafani said, has as its primary goal the proficiency of all students by the year 2014. Central to that goal is the belief that all children are able to learn. In today's world, Dr. Sclafani asserted, poorly educated individuals will have no place. By the year 2020, 15 million new jobs in the US will require a post-secondary education; if the US cannot fill those jobs – and at the current pace of educational reform, she said, it cannot – other countries with skilled workers, such as Korea, Singapore, and Ireland, will do so.

Dr. Sclafani argued that money alone is not the answer. While school funding has risen dramatically over the last 20 years, test scores have not, she asserted. *No Child Left Behind* aims to reform public education through accountability, local control and flexibility, parental choice, and "doing what works." Schools must give parents greater freedom to make choices about, and greater opportunities to get involved in, their children's education. Furthermore, she said, educators should allow the results of research to guide their practice.

No Child Left Behind calls for all students in the nation to achieve proficiency in 12 years, and requires annual assessments in reading and math – science will be added within three years – for students in grades 3 through 8 to measure progress toward that goal. Assessment data must be disaggregated, Dr. Sclafani said, so

schools, districts, and states can be held accountable for the progress – not just of the general population of students, but of specific groups whose test scores show they have been historically underserved (those with limited English proficiency, members of ethnic and racial minorities, immigrants, and the disabled). Testing, she asserted, helps to evaluate where each student stands in academic ability and will be accompanied by the development of consistent standards for academic content and achievement.

Dr. Sclafani said successful schools are characterized by strong instructional leadership, high expectations of achievement for all students and a focus on the academic success of every student. A willingness to experiment, a safe and orderly environment, and the refusal to tolerate excuses are examples of such leadership. She asserted that educators would do well to adopt these attitudes, and that they should abandon strategies that are not working, adopting instead techniques and strategies that have already been demonstrated through research.

Dr. Sclafani held little regard for traditional measures of teacher quality – teacher certification requirements, or the acquisition of masters' degrees – which by themselves have not produced higher quality teachers. She asserted instead that the strongest indicators of teacher quality are experience and general knowledge.

Tom Horne, Superintendent of Public Instruction, Arizona Department of Education

Tom Horne, Superintendent of the Arizona Department of Education gave the final presentation.

Education is undergoing a paradigm shift, and Arizona's Department of Education is undergoing one as well, Mr. Horne said. Its role as an enforcer is evolving – although it must continue to serve as such, the department also has as its mission helping schools raise achievement.

To be told that there are only 1.2 applicants for each teaching position in the state is to be told there is a teacher shortage, Mr. Horne emphasized. Building the quantity of quality teachers available to Arizona schools is essential, he argued – teacher quality accounts for as much as 40 percent of improvements in student achievement, behind family influence (50 percent) and ahead of class size (10 percent).

On the issue of quantity of teachers, Mr. Horne asked whether artificial barriers limit entry into the profession. "Artificial barriers," he noted, must be distinguished from rational barriers, such as requirements for a certain level of grade point average and certain scores on verbal ability tests. It must be recognized, however, that many people besides education majors could be great teachers if

provided some instruction in pedagogy. To this end, colleges of education should make it easy for undergraduate students to get the classes they need.

For post-baccalaureate students who wish to change careers and enter teaching, other barriers exist. Two years of full-time courses is too burdensome, Mr. Horne suggested. The economic costs are burdensome as well, he added, calling for such barriers to be lowered.

For students who are already enrolled in colleges of education, many express concerns that their education courses do not adequately prepare them for what they will face, Mr. Horne said. The department is determined to change that. Mr. Horne concluded by saying that education courses should not just be professors preaching politics, but that instruction should obviously be targeted more carefully, allowing students to learn what they need to know to be successful teachers.

APPENDIX A: FORUM SPEAKERS AND PARTICIPANTS

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