



Promoting Excellence for All

A Report on Outcomes of Teacher Education Grants

*New Jersey Commission on Higher Education
September 2004*

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COMMISSION ON HIGHER EDUCATION**

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The collective foresight of leaders who planned and implemented these programs has been rewarded with exceptional outcomes and the promise of more to come.

*Francis J. Mertz, Chairman
New Jersey Commission on Higher Education*

The education grants have been vitally important to Rowan University, as they have permitted us to add more teacher candidates in areas of extreme shortage, and to develop programs with local schools to ensure that our teachers will be better prepared to face the reality of being a teacher in 21st century New Jersey.

*Donald J. Farish, President
Rowan University*

The Teacher Quality and Capacity Grant Program assisted Caldwell College in addressing the needs of the P-3 population in the Abbott Districts. Individuals who complete the P-3 certification program are qualified to provide quality care and education to young children in the Abbott Districts.

*Janice Stewart, Chair
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A REPORT ON OUTCOMES OF TEACHER EDUCATION GRANTS

INTRODUCTION

In January 2000, the Commission on Higher Education initiated discussions regarding the critical role of colleges and universities in preparing and sustaining effective preschool-to-grade-twelve teachers, and those discussions subsequently resulted in four different Commission programs focused on teacher quality. New Jersey's long-range plan for higher education, *A Blueprint for Excellence*, recognizes the continuing need to address issues related to teacher quality and calls for the Commission to review and assess the outcomes to date of its 2001, 2002, and 2003 teacher education grant programs to inform future policy and planning. An assessment of the outcomes of the four grant programs through spring 2004 was initiated in March of this year, and the findings are presented herein.

BACKGROUND

Research over the past decade has resulted in a significant reorientation of thinking about the relative role of the teacher in bringing about student achievement gains. According to research findings that have been replicated in various settings by different investigators, socioeconomic and other nonschool variables influence student learning, but the dominant factor in determining student achievement growth is teacher quality. For example, a study analyzing individual students' performance in Texas showed that the variance in student achievement gains accounted for by teacher quality is twenty times greater than attributed to any other variable. Noting such significant research findings, national reports are increasingly stressing the critical need for a qualified, effective teacher in every preschool-to-grade-twelve classroom.

Much of the responsibility for improving the quality of the educators in our nation's schools depends on the strength and effectiveness of college and university teacher preparation and development programs. As the federal government and states focus more intensely on teacher quality, colleges and universities face an enormous challenge and responsibility. Not only must they educate more teachers, but the teachers they prepare must be effective educators in a new economy that depends more than ever on knowledge and its application.

Four years ago, the Commission began working with college and university representatives and the New Jersey State Department of Education to develop recommendations to address teacher quality and shortage issues. In concert with the

Presidents' Council, specific budget recommendations were made to expand the capacity and quality of New Jersey's teacher education programs.

The initial state funds to improve teacher education were provided as part of the Commission's fiscal 2001 and fiscal 2002 High-Tech Workforce Excellence Grant program. A portion of those grants was dedicated to fostering improvements in math and science teacher education.

In response to a recommendation for broader support to address the pressing need for more and better teachers, the fiscal 2002 state budget appropriated \$10 million to the Commission to challenge New Jersey's colleges and universities to dramatically strengthen their teacher preparation and development programs. The funds were divided into two grant programs. The first program provided \$7 million for Teacher Quality and Capacity Grants to the 21 New Jersey colleges and universities that have teacher preparation programs. The second provided \$3 million in competitive grant funds to build on highly successful programs that enhance teacher effectiveness and improve student achievement.

In fiscal 2003, an additional \$3 million was appropriated to the Commission for Teacher Preparation Grants. These grants were dedicated to preparing highly effective math, science, special education, preschool, and literacy teachers for urban schools.

In addition to these Commission grants, several of New Jersey's teacher preparation programs were successful in competing for and receiving grants during this same time period from the New Jersey Department of Education, U.S. Department of Education, and National Science Foundation. Consistent with our state grants, many of these grants specifically addressed the need to recruit more teachers and develop partnerships between P-12 and higher education. New Jersey wisely did not limit the attainment of these goals to a few select programs that successfully competed for federal or other nonstate funds, but sought instead to reach these goals as a state by distributing grant funds throughout all the teacher preparation programs. Twenty-one New Jersey colleges and universities with teacher education programs received funding at least proportional to the size of their programs.

OVERVIEW OF GRANT PROGRAMS

High-Tech Workforce Excellence Grants

Funding for the High-Tech Workforce Excellence Grants was appropriated in fiscal 2001 and 2002. The purpose of the grants was to build on successful technology-related programs that provide employers with highly qualified workers in the state's high-tech economy and improve the state's position in the global economy. Although not designed exclusively as teacher education grants, four grants did have specific science and mathematics teacher education objectives. Funds could be disbursed over one to three years, and each grant proposal was required to address the institution's plan to sustain the grant activities when grant funding ended. These grants, totaling \$7.9 million,

emphasized professional development and teacher education in math and science. A summary of the primary accomplishments of each of the grants follows.

Institution	Amount	Summary of Primary Accomplishments
Montclair State University	\$2,499,886	<i>MGM – STEP (Middle Grade Mathematics Science Teacher Education Project)</i> - The goal of this project was to recruit, prepare, and support new math and science teachers for public schools. In addition, a multilayered, content-based professional development program featuring summer institutes and mini-courses was provided, and a new M.A. program and certificate program in middle school math was developed.
Rider University	\$1,804,502	<i>SELECT-VLC: High-Tech support for a continuum of professional development for teachers of science and mathematics</i> - This project infused science, math, and pedagogy courses with technology to model how students will be expected to teach when they are practitioners and to facilitate preservice and inservice teachers' use of inquiry-based teaching. The grant provided equipment and other support for the Center for Teaching and Learning.
Stevens Institute of Technology	\$1,078,560	<i>K-12 Partnership Enhancement</i> - This project provided intensive professional development to science and math teachers from the Newark Public Schools. Teaching and learning in science, mathematics, and other core subjects was strengthened through the integration of internet-based curriculum resources.
The College of New Jersey	\$2,498,074	<i>Expanding a K-12 Science, Mathematics, Engineering and Technology (SMET) teacher preparation program</i> - This project expanded the nationally recognized elementary-level science, math, engineering, and technology (SMET) program to include secondary school teachers. That program, which links subjects across the curriculum with workplace knowledge and skills, was improved for all levels.

Teacher Quality and Capacity Grants

The Teacher Quality and Capacity Grants provided \$7 million in fiscal 2002 to 20 of the state's 21 public and private institutions with teacher preparation programs. Each grant was required to address four goals:

- Making teacher preparation a top institutional priority
- Increasing capacity to prepare effective teachers to fulfill growing demands and shortages
- Linking teacher preparation to the content standards for P-12 students
- Expanding collaborative efforts with P-12 schools

In order to provide state funding to sustain increased capacity at the public institutions, each of the nine eligible public colleges and universities have had fringe benefits covered by the state after the first year of employment of new faculty or staff members hired as a result of this initiative. In addition, the salary of faculty and staff members hired at the public institutions as a part of the grant during fiscal 2002 was built into the base budgets of the institutions in subsequent years. This salary provision was limited to 70 percent of each public institution's total grant allocation. Beginning in fiscal 2003, the state appropriated \$2.3 million annually to fund the salaries of 52 new positions created at public colleges and universities as a result of the Teacher Quality and Capacity grants. Many more new positions are being supported from existing institutional funds, particularly at the independent institutions.

Proposals to use these grant funds varied among the institutions, building on the characteristics of each unique teacher preparation program. They all focused, however, on meeting the statewide need for more and better-prepared teachers. Distribution of the funds was based on the size of each institution's teacher preparation program, and institutions had the option of receiving the funds over one to three years. Each grant proposal was required to address the institution's plan to sustain the grant activities when grant funding ended. Awards ranged from \$32,242 to assist the smallest program to \$865,730 at the largest. A summary of the primary accomplishments to date of each of the grants follows.

Institution	Amount	Summary of Primary Accomplishments
Bloomfield College	\$37,080	The college strengthened and expanded teacher education offerings by creating a bachelor's degree program in teacher education with concentrations in early childhood education, elementary education, special education, and subject area specialization. In addition, the teacher education program facilitates the transfer of students from surrounding two-year institutions and has expanded involvement with Abbott school districts.
Caldwell College	\$117,688	The college improved the quality of early childhood educators by creating a dual certification P-3 and elementary education program. A comprehensive approach to teacher education includes recruiting more qualified teacher education candidates from two-year institutions and providing professional development in early childhood practices for teachers who are already certified and do not hold P-3 certification.
Centenary College	\$91,800	A statewide conference was held to bring together education and arts and science faculty to share ideas regarding the effective preparation of future teachers as well as the continuing education of current teachers. Two new certifications – early childhood education and business – were established. Additional activities include significantly expanding professional development offerings, establishing the Mathematics Center, and developing articulation agreements with community colleges.
College of Saint Elizabeth	\$180,562	The college initiated program A.S.P.I.R.E. (the Alliance to Support the Preservice and Inservice Retention of Educators), which addresses the induction and retention of teachers by strengthening the preservice teacher program, enhancing outreach to inservice teachers who will become mentors for those entering the profession, and linking inservice with preservice candidates.

Felician College	\$130,585	Learning triads comprising faculty, preservice teachers, and inservice teachers were established. Working together, teams explore and create ways to integrate technology into the curriculum with the purpose of helping students master the key concepts and skills in the curriculum standards.
Georgian Court University	\$312,759	A fast-track program was established that enables students with a BA/BS degree to complete certification requirements in elementary education in one academic year and special education in 18 months. Two new education programs, in ESL and in bilingual education, are now offered.
Kean University	\$865,730	The university is increasing its capacity to prepare effective educators for New Jersey schools and improving the quality of the teacher education programs through a collaborative effort between the School of Education, the Arts and Sciences, and the P-12 sector. Activities include creating linkages with area two-year colleges, expanding partnerships with P-12 schools through professional development schools, and enhancing subject matter knowledge of preservice and inservice educators through curriculum alignment.
Monmouth University	\$394,979	Increased faculty lines funded by the grant and continued by the university after the grant will support the university's commitment to the teacher preparation program and maintain its capacity. One faculty member is in science, and the second focuses on enhancing professional development partnerships.
Montclair State University	\$478,812	The university's efforts will increase the number of graduates overall in initial teacher preparation, including tripling graduates in early childhood/elementary education through the creation of a new Early Childhood and Elementary Education Department and new mentoring and professional development programs.

New Jersey City University	\$473,975	The Center for Improvement of Urban Education was created to coordinate and enhance partnerships with public urban schools. The College of Education also expanded its capacity to prepare early childhood education and special education candidates.
Princeton University	\$32,242	The effectiveness of the Junior Seminar on Learning and Teaching was evaluated and improved accordingly. The university also expanded the Convocation on Teaching to raise its visibility on campus and increase the number of graduates who enroll in the teacher preparation program.
Ramapo College of New Jersey	\$83,832	The college improved the overall quality of elementary and secondary instruction by enhancing resources within the education program especially through strengthening the technological focus.
The Richard Stockton College of New Jersey	\$187,011	The quality of student preparation in teacher education was improved by increasing the relationship between arts and science faculty's content knowledge and the application of that content by skilled teacher education faculty.
Rider University	\$378,858	The university's activities improved the overall preparation of students in education programs, increased the number of students in the graduate teacher preparation program, and facilitated the transfer process for undergraduate students into education. Workshops for liberal arts and science faculty on the PRAXIS exam and P-12 Core Content Standards helped faculty revise their courses to ensure inclusion of this content.
Rowan University	\$793,183	By expanding the teacher preparation program activities in the areas of recruiting, advising, and retaining students, enrollment in teacher preparation programs that address the state's highest demand and shortage areas increased. The university also established a blended Early Childhood/Special Education program.

Rutgers, The State University of New Jersey	\$496,545	The university's objectives were to strengthen teacher education quality and build capacity by setting the standard for high-quality, research-based programs and by raising the number of high-quality teachers completing programs in shortage areas. The plan included the revision of course content in the programs, alignment of the knowledge base and performance standards of future teachers with curriculum standards, and professional development in partnership with community colleges and local school districts.
Saint Peter's College	\$187,864	A program was established to integrate arts and science faculty into education courses by recruiting and training professors in science and mathematics to team teach methods courses with education department professors. Opportunities for high school students and their teachers to visit the campus and interact with education department faculty help to recruit students from urban high schools into the teacher preparation program.
Seton Hall University	\$191,847	An innovative, collaborative effort resulted in the integration of mathematics, science, and technology in the elementary teacher preparation program. This improves the overall preparation of students in elementary education programs by linking knowledge and performance expectations with the core content standards for mathematics, science, and technology.
The College of New Jersey	\$775,017	Two new master's-level degree programs as well as additional certification programs for P-3 have been created. Assistive technology and positive collaborative supports have been infused throughout the curriculum. In addition, grant-funded projects in the areas of math, science, and technology have established an ongoing partnership between the Schools of Education and Engineering.
William Paterson University of New Jersey	\$636,803	The university has correlated course content in liberal arts and sciences with national and state science content standards, improved student advisement, and greatly expanded the future teachers program.

Teacher Effectiveness Grants

The Teacher Effectiveness Grant program provided \$3 million in fiscal 2002 through a competitive process open to the 21 institutions with teacher preparation programs. Four institutions received awards, which ranged from \$306,002 to \$748,517 and could be disbursed over one to three years. Each grant proposal was required to address the institution’s plan to sustain the grant activities when grant funding ended. Grants were provided to build on existing college projects or programs that were renowned for their success in preparing effective new teachers and improving the effectiveness of practicing teachers. Institutions were encouraged to collaborate with P-12 schools and community colleges. A summary of the primary accomplishments to date of each of the grants follows.

Institution	Amount	Summary of Primary Accomplishments
Montclair State University	\$748,517	<i>The Urban Teaching Academy</i> – Working collaboratively with county colleges and Abbott centers, an Urban Teaching Academy was created. The academy recruits, prepares, and supports transfer students for P-3 certifications, provides enhanced academic support for P-3 certification students, and collaborates with urban teachers and administrators on curriculum, teaching, and mentoring for new urban teachers.
New Jersey City University	\$669,001	<i>Early Childhood Project Success</i> – The university is partnering with Hudson County Community College and the Jersey City public schools to address the unprecedented demand for highly effective preschool teachers. The project builds on a strong articulation model, which allows teacher education candidates to transfer and move seamlessly through the teacher preparation program. Grant funds provided standards-based professional development opportunities for Jersey City public school teachers, enabled better alignment of teacher preparation curricula with state and national standards, and increased the number of minority teacher candidates who complete P-3 certification.

Rutgers, The State University of New Jersey	\$499,979	<i>Urban Science Education Collaborative for Teacher Effectiveness</i> – Funds provided for the implementation of a model science classroom at the Lincoln Professional Development School in New Brunswick and model preservice and inservice science professional development programs for teachers throughout the state.
The College of New Jersey	\$749,333	<i>Preparing Special and Elementary Educators to Use Inquiry- and Design-Based Problem-Solving Strategies to Include Students with Disabilities and Enhance All Students' Learning</i> – This program prepares K-12 teachers and special education teachers to develop and implement integrated math, sciences, and technology activities that utilize an inquiry- and design-based problem solving approach.

Teacher Preparation Grants

The Teacher Preparation Grant program provided \$3 million in fiscal 2003 through a competitive process open to the 21 institutions with teacher preparation programs. Four institutions received awards ranging from \$563,579 to \$750,000. As with the other grant programs, funds could be disbursed over one to three years and each grant proposal was required to address the institution's plan to sustain the grant activities when grant funding ended. The purpose of this grant program was to increase the number of highly effective teachers prepared to work in urban schools and teach math, science, special education, preschool, and literacy. Grants were to build on existing college projects or programs that were renowned for their success in preparing effective teachers in the targeted areas. Since this program just completed its second year, a summary of the primary purpose, rather than the accomplishments, of each of the grants follows.

Institution	Amount	Primary Purpose
Kean University	\$749,970	<i>New Pathways to Urban Early Childhood and Special Education Teaching</i> – This program is designed to increase the number of preschool and special education teachers in urban areas by creating and expanding innovative approaches to the delivery of instruction, such as Weekend College, and actively recruiting teacher education candidates through partnerships with three school districts.

Montclair State University	\$750,000	<p><i>The Pipeline Project</i> – Beginning in the fall of 2002, this project is intended to: (1) recruit, prepare, and support 40 new P-3 teacher candidates from Essex and Passaic Community Colleges for literacy-enhanced urban preschool classrooms; (2) augment the capacity of the Urban Teaching Academy by recruiting teachers in the target areas of literacy, math, and science; (3) develop models of teacher recruitment and retention in collaboration with Newark, Paterson, and East Orange; and (4) create professional development activities that address the needs of new teachers in urban schools.</p>
New Jersey City University	\$563,579	<p><i>Developing Positive Behavioral and Academic Support within a Secondary Special Education Setting</i> – This grant is used to support an intensive teacher training program that employs a research-based positive behavioral and academic support model with documented success in increasing teacher effectiveness, especially with challenging student populations. The university also anticipates increasing the number and diversity of teachers achieving Teacher of the Handicapped licenses and supporting additional efforts to establish a professional development school partnership that will help retain qualified special education teachers and improve overall teacher effectiveness.</p>
Rowan University	\$749,236	<p><i>Valuing Yesterday, Learning Today, and Building Tomorrow</i> – Building on the university’s PDS network, programs will address teacher effectiveness at each level: pre-service, induction, professional practice, and accomplished teaching. The university will (1) design, implement, and evaluate recruitment, admissions, field experiences and clinical practice; (2) provide support services for novice teachers in their first through third years; (3) provide opportunities for teachers to continue learning, reflecting, and conducting research; and (4) use the five core propositions of the National Board of Professional Teaching Standards to advance the development of experienced teachers.</p>

ASSESSMENT PROCESS

A questionnaire was drafted in early 2004 by Commission staff to assist in assessing the outcomes of these grants to date. In March an advisory group, including the deans of education from one private and two public institutions, met with Commission staff, reviewed the draft questionnaire, and made comments and suggestions for revisions to enhance the assessment. The final assessment document was provided to all grant recipients in May, and data were received in June and July. The results of the assessment will inform discussions about the efficacy of such state grant programs in the future.

Data for academic years 2001 through 2004 and estimated data for academic year 2005 were collected in the following areas:

- Total enrollment in teacher education programs (headcount)
- Recommendations for initial certifications
- Number of recommendations for P-3 certification
- Number of recommendations for elementary education certifications
- Number of recommendations for special education certifications
- Number of recommendations for certifications with math/science emphasis
- Number of recommendations for certifications with ESL emphasis
- Minority student enrollment in teacher education programs
- Full-time equivalent teacher education faculty
- Number of professional development programs
- Number of P-12 schools affected
- Number of P-12 faculty affected
- Expenditure information for curriculum materials, equipment, and facilities renovation

In addition, opportunity was given to provide other information more specific to each grant, such as high school student participation in programs, stipends, faculty participation in national conferences, and impact on Praxis scores. Finally, a narrative section asked for each institution's perceptions concerning the most helpful aspects of the grant, those things that hindered implementation of the grant, and what areas and methods of delivery might be most useful if funds were provided in future years.

FINDINGS

During the past four years, great change has occurred in the colleges and universities in response to many state and federal initiatives related to teacher preparation and teacher quality. Any assessment of the impact of the Commission on Higher Education teacher education grants must acknowledge that these programs were only one aspect of the dynamic that was occurring. Therefore, the findings presented here must be understood as the collective result of multiple efforts and influences. In most cases, those institutions that received more than one grant, either from the Commission or other state and national

sources, could not readily assign the impact entirely to one grant or another but rather recognized the cumulative effect of various activities. Respondents were asked to indicate whether a particular outcome was fully, partially, or not at all a result of the Commission's grant. The vast majority of the responses indicated that the activities funded by the Commission grants were at least partially responsible for outcomes.

The Commission grant funds provided through the four initiatives were awarded at different times and could be used over three years. The institutions were, therefore, at various stages of implementation at the time the assessment information was gathered; some had concluded all grant-funded activity, some were just concluding the final year, and still others were in the midst of their second year of activities. In addition, grantees were asked to include in their proposals a plan for sustaining grant activities. Hence, the impact of these grants will continue to be monitored in future years.

Expenditure and Outcomes Data

Grant funds were expended primarily for personnel costs, either salary, fringe benefits, or release time. Considerable state investment has, however, been made in other areas, particularly equipment, and that information is displayed below. Estimated outcomes for academic year 2005 and beyond indicate that these totals will continue to increase as a result of the initiatives undertaken with grant funds.

Funds Spent For:	AY 2002	AY 2003	AY 2004
Curriculum materials	\$93,238	\$193,706	\$71,774
Equipment	\$760,050	\$452,958	\$108,877
Facilities renovation	\$79,126	\$0	\$76,255

Aggregate totals of the outcomes data for the four grant programs for academic years 2001 and 2004 and the change over that period are displayed below.

Number of:	AY 2001	AY 2004	Change
Students enrolled in teacher education programs (headcount)	15,040	20,064	5,024
Recommendations for initial certification	4,108	5,462	1,354
Number of P-3 certifications	89	502	413
Number of elementary education certifications	1,596	2,271	675
Number of special education certifications	864	1,037	173
Number of certifications with math/science emphasis	143	195	52
Number of certifications with ESL emphasis	152	145	-7
Minority students enrolled (headcount) in teacher education programs	2,904	4,244	1,340
Full-time-equivalent teacher education faculty	496.75	626.25	129.5
Professional development programs	156	261	105
P-12 schools affected	965	1,356	391
P-12 faculty affected	37,722	42,570	4,848

The above information clearly demonstrates that New Jersey's colleges and universities have made significant strides in addressing the goals of the Commission's teacher grant programs. Enrollments in teacher preparation programs increased by one-third; this gain includes a 45 percent increase in minority student enrollments. The number of graduates recommended for teacher certification also increased significantly. Those graduates include more teachers who are qualified to teach in high-demand and shortage areas such as preschool, special education, math, and science.

The only area showing a decline was recommendations for certification with ESL emphasis. A closer review of the individual institutional data reveals that this decline reflects increases at some institutions offset by larger declines at other colleges and universities. In fact, the estimated information provided for the current academic year (2005) indicates there could be a small increase in the number of graduates with ESL emphasis. But the sustained progress that was expected has not materialized, and this area of continued concern merits further attention. The new state code for teacher licensure requires that all teacher preparation programs include the study of teaching linguistically diverse students. This requirement may lead to increased student interest in this area.

In order to prepare more effective teachers, the teacher preparation programs have expanded their faculty by over 25 percent. While a portion of these positions has been funded by the state, the institutions support well over half of the new positions. This demonstrates a strong commitment by college and university administrations to enhance teacher preparation programs to address the critical state need to prepare more teachers and to improve preschool-to-high-school education.

The connection between the P-12 and higher education communities has been strengthened considerably as a result of these grants. There are almost 70 percent more professional development programs serving more potential and practicing teachers each year. These programs have had a major impact on the ability of practicing teachers to adjust their curriculum to the new state and national standards.

Qualitative Information

Each institution was given the opportunity to provide narrative, qualitative information concerning grant outcomes, in addition to the data reported above. A selection of comments is provided below. These comments demonstrate the great range of impact that the teacher education grants have had on teacher education programs and the quality of teaching throughout the state.

Teacher Preparation – An Institutional Priority:

- This grant has shown the college's leadership the importance of our teacher education program.
- Our University-wide convocation on teaching also contributed to the visibility of the program on campus.
- The greatest strength of the program is the people who have taken leadership roles and the quality of the participants themselves. The quality of instruction, support,

- and commitment is excellent, and the support and interaction of the participants themselves have emerged as a major program strength.
- The grant has also provided the opportunity for faculty from arts and science departments (English, history, sociology, computer science, mathematics, biology, urban studies, chemistry) to become part of the education faculty. Combined, these faculty offer special sections of core courses in their disciplines to education students, team teach and teach methodology courses in mathematics and science, and supervise student teachers in their field.
 - The outcomes also indicate that more cooperation and collaboration between content experts in the College of Education, the College of Arts and Science and from partnerships in specialized areas will help meet the goal of increasing the number of teachers certified in these subjects.
 - Our language faculty member has made much progress in making links between the liberal arts faculty, the community, the schools, and focusing on the NJCCCS (New Jersey Core Content Curriculum Standards). It is obvious that if such success can occur in the difficult field of World Language, it can occur in other areas.

Program Quality:

- This grant helped us move from initial alignment of our programs with national standards to performance-indicator development.
- The structures for curriculum development/revision/improvement made possible by the support of this grant has placed [the] University in a proactive position to address the new comprehensive changes in New Jersey's Professional Licensure and Standards Code.
- In an effort to align field experiences with national standards, a cooperative group of county college faculty, University Arts and Sciences faculty and Education faculty have developed a new freshman-level education course with standards-based field experiences.
- The Teacher Quality and Capacity Grant fostered programmatic changes in the department of Curriculum and Instruction's math and science methodology courses.
- With the support of grant funding, faculty conducted a total reformation of the special education curriculum. Assistive technology and positive collaborative supports have been infused throughout the curriculum.

Increased Capacity to Meet Growing Needs:

- The grant is primarily responsible for our ability to continue to offer early childhood P-3 classes at sites other than the campus, thus providing an impact on accessibility issues. The institution is committed to supporting the early childhood initiative and will be providing an additional early childhood line for the 2005-06 academic year.
- With the employment of new faculty, the Division of Special Education has been able to significantly expand its program offerings.

- The most visible, predicted, and perhaps significant outcome of this grant is the hire of a new faculty for our Graduate Teacher Preparation program. This certificate program produces teacher candidates in a shortened time frame and is therefore important to the education community as well as its students and our School of Education. The institution supported the new faculty line from the grant and has now agreed to support a second line, to be hired AY 2004-05.
- The institution's pass rate on the PRAXIS Test has risen significantly to 100 percent.
- Our holdings of curricular and instructional material has grown with purchases made possible by the grant helping us create a Center for Learning and Instruction that is not only aiding our students as they move through the program but also becoming a point of interaction between our program and local school districts and teachers.
- The most important outcome (of the High-Tech Workforce grant) has been the creation of the Center for Teaching and Learning (TLC). This area is a busy hub of activities for students, faculty, and administrators at the University. Workshops, meetings, classes, visits by observers, K-12 teachers and administrators, grant participants, and university students occur weekly. In many ways the TLC has become the heart of our university.
- The model science classroom is a state-of-the-art science learning facility stocked with high-quality equipment (e.g., microscopes, electrical outlets, sinks), kidney-shaped tables for group-learning, computers, and other science learning resources (e.g., curricular materials, reference texts). The classroom was utilized three ways: (1) Lincoln middle school students were taught by Lincoln school teachers during the day, (2) inservice sessions were carried out twice a month after school hours, and (3) two preservice courses were conducted in that classroom.

Outreach and Collaboration:

- Approximately 8,500 students participated in ED&E (Exploring Design and Engineering) courses and activities during the 2002-03 school year. Virtually 100 percent of the teachers, who used the ED&E curriculum in 2002-03, planned to increase their use of the instructional modules in 2003-04.
- Based on the theory of "they that teach learn twice," the members of the Triad groups (one College staff, one preservice teacher and one practicing teacher) developed several dozen projects, presentations, and technology-based activities. The grant allowed support for these three groups to work, create, and learn together.
- The Professional Development Opportunity Center workshops attract 60-70 area teachers and administrators per session and have become a regular component of local professional development offerings.
- The *Math Integration Program* model has been and will continue to be disseminated throughout the districts and at state conferences to demonstrate the impact of professional development on student achievement.
- 100 percent of the respondents indicated that they have implemented changes in their instructional practice based on lessons they learned as participants in the program.

- The impact has been to provide opportunities for our faculty to spend quality time in our grant-supported public school partnership districts, becoming integrated into the school community including working with parents.
- The New Pathways to Urban Early Childhood and Special Education has been successful in the recruitment and retention of highly qualified candidates to work in urban schools as special education or early childhood education teachers.
- Well over 200 high school future educators and their teachers have participated in a variety of both on- and off-campus activities related to college admissions, teaching as a profession, and services available through TEAC (Teacher Education Advocacy Center).
- As partners in our efforts to improve overall teacher effectiveness, Hudson County Community College is maintaining a positive relationship with the Jersey City public schools. Honor students from HCCC have been selected to serve as leaders for a mentor program with Snyder High School students.
- The grant supported the expansion of a future teachers program. This resulted in more minority students entering the university with an interest in teaching, improved retention rates of these students, their admission into teacher education programs, and in some cases, attainment of Scholar status.

Narrative Information

In the final section of the questionnaire, each institution was asked to provide comments on three areas: (1) the most helpful aspects of the grant, (2) events or requirements that hindered implementation of the grant, and (3) funding areas and methods of delivery that would be most useful if support were provided in future years. The responses were as varied as the grants, but some themes do emerge. One-third of the colleges and universities noted that funding faculty and staff positions was the most helpful aspect of the grant. This funding was significant in light of the serious budget constraints under which most institutions have operated in past years. Second in importance was the encouragement and ability to work with a wide range of professionals, including faculty in various disciplines, community college faculty, and local school district teachers and staff. Ironically, the most challenging aspect of the grants was the complexity, and often frustration, of working with multiple groups; over half of the grant recipients cited the coordination of activities within their institution and with local school districts, community colleges, and the state, as hindering the implementation and progress of their grant. Finally, several institutions appreciated the flexibility of the grants, which allowed them to build on the strengths of their existing programs within broad goals.

There were numerous suggestions for areas of future funding. Continued support for the most successful aspects of the grants was suggested. The most frequent response favored more professional development activities for practicing teachers and P-12 cooperative programs. Two institutions suggested enhanced funding for the electronic delivery of instruction, either at the P-12 or postsecondary-education level, and two other institutions suggested funding more faculty lines, especially in shortage areas.

CONCLUSIONS AND RECOMMENDATIONS

The Commission on Higher Education's teacher education grant programs demonstrate how targeted funds can be directed toward the achievement of critical state goals. Both the quantitative data and the qualitative reports by the colleges and universities indicate that the teacher education programs at New Jersey's colleges and universities have been greatly transformed during the past four years and will continue to be expanded and enhanced in the future. Although several institutions were involved in other teacher education improvement initiatives as well, much of the impetus for that transformation can be attributed to the Commission's four teacher education grant programs.

Significant progress has been made in several areas. First, institutional leadership has begun to show greater recognition of the need to make teacher preparation a top priority, and faculty from various areas of the colleges and universities are working together in this effort. Second, the capacity to prepare more teachers, particularly in areas of shortage, has been greatly increased. Third, program quality has been enhanced, and successful initiatives have been expanded. And fourth, the colleges and universities are reaching out to their communities and enriching the lives of students, prospective teachers, and inservice teachers through new and more effective means. At the same time, the assessment reveals the need to significantly increase certifications with ESL emphasis, the one area in which sustained progress was not realized.

Efforts initiated by the Commission's various grant programs will continue. In some cases, institutions will be using the final-year funds from a grant award. In other cases, state grant funds have been expended, and the institutions are maintaining and advancing the work that started as a result of the grants. The Commission will continue to monitor outcomes related to the specific objectives of each grant to assess long-term benefits.

As demonstrated by this initial assessment, the institutions are to be congratulated for their commitment and dedication to what has become a state and national priority. The magnitude of the teacher quality issue, however, calls for ongoing commitment at the state and institutional levels. The opportunity to transform schools by improving the quality of teachers has never been greater, but there is much left to be done, and the nation needs the intellectual capital of the colleges and universities to do it. The future of New Jersey and the nation is directly tied to preparing all children to succeed in the knowledge-based economy, and that means closing the longstanding achievement gaps that continue to exist.

The Commission on Higher Education, in consultation with the Administration, Department of Education, Presidents' Council, and Deans of Education, should collaborate to review what has been accomplished and to identify areas where new initiatives will strengthen teacher effectiveness across the state and thereby enhance opportunity and achievement for all students.

The High-Tech Workforce Excellence and the Teacher Preparation grants from the Commission on Higher Education were instrumental in helping Montclair State University double the size of our teacher education program; prepare new preschool, mathematics and science teachers for our urban school districts; and create a new pipeline to teaching from middle schools and high schools. We will always be grateful for these critically important and timely grants.

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The High Technology Workforce Excellence Grant program funded a three-year, intensive teacher professional development collaboration between Newark Public Schools and the Center for Innovation in Engineering and Science Education (CIESE) at Stevens Institute of Technology. We have seen dramatic increases in students' science achievement scores--averaging 10% growth sustained over three years--in those schools that worked with Stevens in this program. In fact in 2004, science scores increased by almost 10% district-wide and by 20% in the participating schools. This demonstrates the value and impact of the NJ CHE grant. As teachers became more facile with their computer skills and their ability to integrate the real time projects into their teaching, the impact has over time added value. We are improving the pool and capabilities of students who will be able to pursue technical careers in New Jersey.

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