PREPARING TOMORROW'S TEACHERS TO USE TECHNOLOGY PROGRAM

Goal: To improve the knowledge and ability of future teachers to use technology in teaching practices and student learning opportunities, and to improve the quality of teacher preparation programs.	**Funding History** ($ in millions)			
	Fiscal Year	**Appropriation**	**Fiscal Year**	**Appropriation**
Legislation Title III, Part A, SubPart 1, of the Elementary and Secondary Education Act (ESEA) of 1965, as amended by the Improving America's Schools Act of 1994 (20 U.S.C. 6832.).	1985	$0	2000	$75
	1990	$0	2001	$125
	1995	$0	2002 (Requested)	$0

Program Description

The goal of Preparing Tomorrow's Teachers to Use Technology (PT3) is to support high-quality reforms in teacher preparation programs for the purpose of increasing the knowledge, skills, and abilities of prospective teachers to use technology efficiently in their future teaching practices. This program provides grantees—consisting of consortia of two or more members of schools of education, schools of arts and sciences, state educational agencies, local educational agencies, nonprofits and/or other partners—with the resources to make fundamental reforms in the way prospective teachers are trained to use technology in the classroom.

As technology becomes an increasingly vital component of student learning and success in school, teachers must be adequately prepared to use technology and effectively integrate modern learning tools into classroom instruction. By supporting teacher preparation programs in changing how they prepare future teachers to use technology, the PT3 program can help ensure that (1) future teachers know how to use new technologies to improve learning; and (2) future teachers know how to meet the digital learning needs of low-income communities, rural areas, minorities, and special populations.

In its first year of funding, FY 1999, PT3 awarded three types of grants: (1) Capacity-building, (2) Implementation, and (3) Catalyst. Capacity-building grants were one-year grants (funded only in FY1999) intended to lay the initial groundwork for a teacher preparation reform strategy through activities such as faculty development, curriculum redesign, and the formation of cross-disciplinary courses among departments and between institutions of higher education and K-12 schools. Implementation grants are three-year grants funded to consortia to engage in systemic reform of teacher preparation programs through activities such as in-depth faculty training in technology use, enhanced clinical experiences in technology for student teachers, and development of web-based activities. Catalyst grants are intended to stimulate large-scale, innovative improvements for preparing technology-proficient teachers through activities such as technical assistance to teacher preparation programs, support for alternative teacher development career paths, development of new standards in the use of technology, evaluation of teacher training reform efforts, and other activities.

In FY 1999, the program awarded 138 Capacity-building grants averaging $138,000 for one year, 64 Implementation grants averaging $390,000 per year for three years, and 23 Catalyst grants averaging $640,000 per year for three years. Late notification in FY1999 led to shortened period of activity in some cases. In subsequent years, successive cohorts of grants will be at different stages of progress, due to the different start dates of each cohort. Also in FY1999, GPRA indicators were developed after projects were funded. Grant projects varied in terms of how many and which of the GPRA indicators were selected as goals for their grant activities.

TERMS: Program = PT3 Program overall; Project = recipient of either a Capacity Building, Implementation, or Catalyst grant *(Note: The recipient is a consortium of two or more members)*; Teacher Preparation Program = individual partner institution or program participating in the consortium making up a grant project *(Note: A project may include more than one teacher preparation program. As a result, some calculations are based on the total number of teacher preparation programs participating as a consortium member across all grant types. This number is 330.)*

For more information, please visit the program Web site at: http://www.ed.gov/offices/OPE/PPI/teachtech/ and http://www.pt3.org/

Program Performance

OBJECTIVE 1: STRENGTHEN TEACHER PREPARATION PROGRAMS SO THAT THEY PROVIDE HIGH-QUALITY TRAINING IN THE USE OF TECHNOLOGY FOR INSTRUCTIONAL PURPOSES.

Indicator 1.1 Curriculum redesign: The percentage of funded teacher preparation programs that redesign their curriculum to incorporate best practices in the use of technology in teacher education will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:** Forty- six percent (46 percent) of teacher preparation programs in Catalyst projects had faculty that redesigned curriculum to integrate technology. Curriculum redesign is not the purpose of all Catalyst projects.	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified through on-site monitoring and review and through survey and analyses performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. ED does not collect national level baseline data for this indicator.
1999:	New program for 1999	New program for 1999		
2000:	– **78% of Capacity Building projects** – **82% of Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

Indicator 1.2 Technology-proficient faculty: The percentage of faculty members in funded teacher preparation programs that effectively use technology in their teaching will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:** The performance figure represents the percentage of faculty assessed to be proficient by the 104 teacher preparation programs with Capacity Building and Implementation grants that conducted assessments in the first year. While not all teacher preparation programs assessed the technology proficiency of faculty in the first year, many provided professional development opportunities. Eighty-seven percent (87 percent) of Capacity-Building projects and 88 percent of Implementation projects provided professional development as part of their grant activities. (Catalyst grants generally had a broader focus and only 55 percent offered professional development as a grant activity.) Twenty-two percent (22 percent) of all education faculty in the Capacity-Building teacher preparation programs and 25 percent of all educational faculty in the Implementation programs received professional development in integrating technology into the curriculum in the first year. Of those assessing level of proficiency, 590 education faculty in programs with Capacity-Building grants and 349 education faculty with Implementation grants were rated as "technologically proficient."	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified through on-site monitoring and review and through survey and analyses performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. ED does not collect national level baseline data for this indicator. Twenty-eight percent (28 percent) of grantees that assessed faculty proficiency did not have data available to report on these items, and they were excluded from the analysis. Only 45 percent of the teacher preparation programs assessed their faculty at this point, and only some of the faculty were assessed. It is anticipated that assessments will be take place more frequently in years 2 and 3 of the grant.
1999:	New program for 1999	New program for 1999		
2000:	– **56% of faculty in Capacity Building projects** – **53% of faculty in Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

Indicator 1.3 Graduation requirements: The number of funded teacher preparation programs that will require teacher candidates to demonstrate proficiency in the effective use of technology in teaching and learning will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:** The performance reported reflects the percentage of Capacity Building and Implementation projects that added or expanded a graduation requirement for preservice students to demonstrate proficiency in the use of technology in teaching or learning. Eight percent (8 percent) of teacher preparation programs in Catalyst grants added or expanded a graduation requirement for preservice students to demonstrate proficiency in the use of technology in teaching or learning. This activity is not a focus of many Catalyst projects. It must be noted that the PT3 Program does not expect 100% of award recipients to undertake this activity. Some states already require technology as part of their certification/licensure requirements, thus prompting institutions of higher education to have already made technology proficiency a requirement, either upon graduation or upon entry to a degree program. Some respondents indicated that this activity was undertaken, but not as a grant activity. Also, the first year of a three-year project is often not the time that most institutions make such a change in graduation requirements. Among those programs that did not add or expand graduation requirements, 62 % stated they plan to do so in the next two years.	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified by on-site monitoring and review as well as survey and analyses performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. Five percent (5 percent) of grantees did not have data available to report on adding or expanding graduation requirements, and they were excluded from the analysis. Within grant type, 1 to 12 percent of grantees did not have data available to report on adding or expanding graduation requirements, and they were excluded from the analysis.
1999:	New program for 1999	New program for 1999		
2000:	– **16% of Capacity Building projects** – **16 % of Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

Indicator 1.4 Learning resources: The percentage of teacher preparation programs that use Web-based, multimedia learning resources, course materials, and teaching tools will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:** A total of 237 teacher preparation programs in 307 reporting programs funded at all levels (Capacity Building, Implementation, and Catalyst) had education faculty that integrated technology in their courses in new ways as a grant activity. Sixty-three percent (63%) of Catalyst programs had faculty that integrated technology in their courses in new ways as a grant activity. Some examples of ways that technology was integrated into courses include using the Web as an online resource for syllabi, lesson plans, and course materials; requiring students to use the Web to conduct research; using video for students to observe K-12 teachers modeling integration of technology in classroom instruction; using presentation software and multi-media to develop presentations and demonstrations; and requiring students to use presentation software and multi-media to develop presentations and demonstrations**.** *(This list does not include all ways that technology was integrated into courses.)*	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified by on-site monitoring and review as well as survey and analysis performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. ED does not collect national-level baseline data for this indicator. Six percent of grantees did not have data available to report on faculty integrating technology in new ways after participating in the grant and they were excluded from the analysis. Of those that did have faculty integrating technology in new ways, 5 to 17 percent did not have data available to report on specific integration technologies, and they were excluded from the analysis.
1999:	New program for 1999	New program for 1999		
2000:	– **84% of Capacity Building projects** – **84% of Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

OBJECTIVE 2: INCREASE THE TECHNOLOGY SKILLS AND PROFICIENCY OF NEW TEACHERS FOR IMPROVED CLASSROOM INSTRUCTION.

Indicator 2.1 Technology-proficient new teachers: The percentage of new teachers who are proficient in using technology and integrating technology into instructional practices will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:** Fifty-one percent (51 percent of students assessed at Catalyst projects demonstrated proficiency in using technology. The percentages reflect the percentage of graduating students who demonstrated proficiency in using technology in the 120 teacher preparation programs that assessed the level of proficiency prior to graduation. Overall, only 33 percent of programs required preservice teachers to demonstrate technology proficiency prior to graduation as a grant activity; another 36 percent assessed proficiency but not as a grant activity. Only 65 percent of the programs provided specific data on the technology proficiency of their students. Some did not require all their preservice students demonstrate their proficiency; for example, only graduating students or students in a particular class may have been assessed.	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified by on-site monitoring and review as well as and survey and analysis performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. Of those grantees that had preservice students demonstrating proficiency, 25 to 33 percent did not have data available to report on the numbers of such students, and they were excluded from the analysis Measurement of technology proficiency in graduating students is a better measurement of program outcomes. (Technology assessment of all students by reporting programs was only 16 percent.)
1999:	New program for 1999	New program for 1999		
2000:	– **42% of students assessed at Capacity Building projects** – **32% of students assessed at Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

OBJECTIVE 3: CREATE INSTITUTIONAL CHANGE IN THE PREPARATION OF FUTURE TEACHERS TO USE TECHNOLOGY.

Indicator 3.1 Inter-disciplinary partnerships: The percentage of teacher preparation programs that communicate, collaborate and partner together with schools of arts and sciences on a regular and formal basis will increase.

Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge because data first collected in 2000. **Explanation:**139 of 329 programs at all levels (Capacity Building, Implementation, and Catalyst) partnered with schools of arts and sciences for grant activities. Thirty-six percent (36 percent) of Catalyst projects partnered with schools of arts and sciences for grant activities. Some examples of such activities include teacher preparation programs partnering with colleges of arts and sciences for faculty development workshops in technology; curriculum redesign to incorporate best practices in the use of technology for preservice students; integration of Web-based, multi-media resources in preservice education courses; development of student assignments reflecting the use of technology; and providing technical consultants/educators for the SCDE. *(This list does not include all ways that participating teacher preparation programs partnered with colleges of arts and sciences.)*	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified by on-site monitoring and review; and survey and analyses performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. ED does not collect national-level baseline data for this indicator. In some programs the College of Education and Arts and Sciences faculty are intermingled
1999:	New program for 1999	New program for 1999		
2000:	– **47% of Capacity Building projects** – **44% of Implementation projects**	**Data first collected in 2000**		
2001:				
2002:				

Indicator 3.2 K-16 partnerships: The percentage of teacher preparation programs that communicate, collaborate, and partner together with the K-12 community on a regular and formal basis will increase.				
Targets and Performance Data			Assessment of Progress	Sources and Data Quality
Year	**Actual Performance**	**Performance Targets**	**Status:** Unable to judge data first collected in 2000. **Explanation:** Seventy-one percent of teacher preparation programs (233 of 329 programs, at all grant levels,) partnered with K-12 schools for grant activities. Forty-four percent (44%) of teacher preparation programs in Catalyst projects partnered with K-12 schools for grant activities. Some examples of such activities include teacher preparation programs partnering with K-12 schools to provide technology-rich clinical opportunities for preservice students; to provide professional development opportunities for current teachers to improve their technology skills through the training at the school/college/department of education; to model effective use of technology in instruction by K-12 teachers for education faculty; and to design and develop competencies with rubrics. *(This list does not include all ways that teacher preparation programs partnered with K-12 schools.)* Note: These activities may vary from year to year and grant to grant.	**Sources:** Project Performance Reports. *Frequency:* Annually. *Next collection update:* December 2001. *Date to be reported:* February 2002. **Validation Procedures:** Evaluation data collection will be verified by on-site monitoring and review, as well as survey and analysis performed by an experienced data collection agency with internal review procedures. **Limitations of Data and Planned Improvements:** Performance report data will be self-reported from program grantees. ED does not collect national level baseline data for this indicator. Of those grantees that partnered with K-12 schools, 3 to 13 percent did not have data available to report on specific partnering activities, and they were excluded from the analysis.
1999:	New program for 1999	New program for 1999		
2000:	– **88% of Capacity Building projects** – **80 % of Implementation projects**	**Data first collected in2000**		
2001:				
2002:				

INDICATOR CHANGES
From Annual Plan (FY 2001)
Adjusted—None.
Dropped
- 3.1 Sustained program activities: At least 35 percent of program consortia members will continue to implement reform in pre-service teacher training for at least 2 years following termination of Federal funding.
- 3.3 K-16 partnerships: The percentage of teacher preparation programs that communicate, collaborate, and partner together with the K-12 community on a regular and formal will increase.
- 4.1 State teacher certification standards: The number of states that include technology proficiency as a component of their initial certification standards will increase.

New—None.