About Us…

We are the National Center to Improve Recruitment and Retention of Qualified Personnel for Children with Disabilities (Personnel Improvement Center), a federally funded technical assistance and dissemination project, created on October 1, 2008 and maintained through cooperative agreement, H325C080001 between the National Association of State Directors of Special Education (NASDSE) and the U.S. Department of Education.

Introduction

For more than four decades, the federal investment in special education workforce development has played a vital role in improving the lives of individuals with disabilities and their families. OSEP’s Discretionary/Competitive Grants Program in Personnel Preparation has enhanced the organizational capacity of schools and school districts by helping to:

- address state-identified needs for highly qualified personnel in special education, early intervention, related services and regular education to work with children, infants and toddlers with disabilities; and

- ensure that those personnel have the necessary skills and knowledge, derived from practices that have been determined through scientifically based research and experience to be successful in serving those children.¹

The evidence regarding the positive differences that effective teachers can make in student learning and results is well documented. (Brownell, Sindelar, Kiely & Danielson, 2010; Darling-Hammond, 2012; Feng & Sass, 2009; Harris & Sass, 2008). It is generally acknowledged that promoting teacher quality is a key element for the improvement of student learning outcomes. What is less clearly documented are the factors that contribute to the preparation of highly effective teachers who have the knowledge, skills and professional dispositions required to educate all learners, including those who are the most challenging to educate due to a myriad of individual special needs. There is a
general lack of agreement regarding what produces quality teachers and teaching in the United States, and the issue merits continued investigation as a source of concern for the quality of education (Ingersoll, 2007).

Research using student scores on standardized tests confirms the common perception that some teachers are more effective than others and also reveals that being taught by an effective teacher has important consequences for student achievement (Goe, 2007). Goe and Stickler (2008) point to differences in definitions and procedures for measuring teacher effectiveness that can ultimately produce contradictory findings about educational efficacy. The net result is a conundrum for policy makers who seek to support a quality system of teacher preparation to provide a quality teacher in every classroom.

The points of agreement regarding what constitutes an effective teacher are a driving force behind the special education personnel preparation projects at institutions of higher education (IHEs) supported by the United States Department of Education. The funding enables IHEs to train doctoral personnel through exemplary programs who, armed with a depth of knowledge and research capabilities, are able to effectively prepare high quality special education personnel for our nation’s schools. The engine that drives a high quality system of special education personnel preparation is the doctoral personnel preparation programs that have developed a strong track record of proven project graduates who assume positions as innovative teacher educators.

This paper is divided into five parts:

■ background information about the history of, and the need for, the federal investment in these personnel preparation programs;
■ short descriptions of a sampling of the model programs identified by the survey;
■ short descriptions of federally funded national centers designed to increase both the quantity and the quality of special education personnel;
■ a brief summary of the impact of the personnel preparation programs on capacity; and
■ recommendations for the future of these programs.

History of the Federal Investment in Special Education Personnel Preparation Programs

For the past 55 years, federal lawmakers have recognized the need to build and maintain an infrastructure for preparing special education personnel to provide access to an appropriate public education for children with disabilities, our nation’s most vulnerable citizens. Thus, the Special Education – Personnel Development to Improve Services and Results for Children with Disabilities Program (Personnel Prep), as it is officially known today, is one of the nation’s oldest federal student financial aid programs, originating in 1958 under P. L. 85-926, the Education of Mentally Retarded Children Act. The special education personnel preparation program has built, sustains and continuously upgrades an essential profession for our nation’s most vulnerable infants, toddlers, children and youth.

The original goals of the federal special education personnel preparation program, currently
authorized under Part D of the *Individuals with Disabilities Education Act* (IDEA) were to (1) ensure a sufficient quantity of special education and related services personnel; (2) increase the quality of personnel; and (3) enhance the capacity to meet the personnel needs of local education agencies (Campeau, Appleby, & Stoddart, 1987). In 1966, Major Owen, then Under Secretary at the Department of Health, Education, and Welfare, told a Senate Subcommittee, “A major bottleneck in making services available to the handicapped is the shortage of personnel and the lack of training facilities….The program of training teachers of handicapped children is making an effort to close the serious gap between the number of teachers needed and the number currently available…." (p. 15-16). While noting that serious shortages existed, Owen expressed optimism that the need for federal support to recruit and prepare special education teachers for the estimated 5 million children and youth with disabilities who were not receiving an education at that time could be met within five years (Owen, 1966). However, the task of creating a sufficient supply of teachers prepared to meet the unique needs of changing populations of individual children with disabilities and to prepare them to apply evidence-based practices in their classrooms continues to this day.

Federal investment in personnel preparation began as early as 1958 with the passage of P.L. 85-926. This law authorized an appropriation of $1 million per year for the preparation of college and university personnel to staff both existing and much needed new programs for preparing personnel to work with children with cognitive disabilities. Between academic years 1959-60 and 1963-64, 692 graduate fellowships were granted to 484 individuals, the majority of whom became college and university professors while others became state and local special education leadership personnel.

In 1961, Congress passed P.L. 87-276, which focused on training personnel to meet the needs of children who were deaf and hard of hearing. In 1963, Congress expanded the scope of training to prepare teachers and administrators for children with cognitive disabilities, deafness, hearing impairment, visual impairment, and physical and health impairments (Burke, 1976; Harvey, 1980). In 1953, five years before P.L. 85-926 first authorized funds for personnel preparation in special education, only 15 universities in the U.S. offered doctoral preparation for faculty to train new special education teachers (Burke, 1976).

In response, funds were made available to provide the necessary infrastructure (i.e., preparing new leaders in the field to become college faculty) to expand the field and train future generations of special educators (Whelan, 1988). When the *Education of All Handicapped Children Act*, P.L.94-142 mandated a free and appropriate public education for all children with disabilities in 1975, the need for special educators and leadership personnel became critical. Thus, throughout the first two decades of the federal personnel preparation program, its primary emphases were on increasing the quantity of special education personnel and developing the necessary infrastructure within colleges and universities to prepare teachers (Burke, 1976; Harvey, 1980).

The majority of the funds from the personnel grants (65%) are used to support tuition and expenses of prospective teachers. After successfully completing their program, grant-funded recipients must sign a service obligation agreement to provide direct special education services to
students with disabilities for a specified time, or pay back all of the grant funds they received. This pay-back provision ensures, to the greatest extent possible, that federal investments result in a higher number of practicing special education teachers and related service personnel.

The funding priorities for the personnel preparation program have changed over time to address the need for new types of services and new populations of students with disabilities. In the 1980s, special education personnel preparation funds were targeted toward developing personnel to serve infants, toddlers, and young children with disabilities; to serve children with the most challenging disabilities; and to provide transition services for youth preparing to leave high school and enter the workforce. In the 1990s, the program supported preparation of teachers for newly identified populations of students with disabilities such as those with autism and attention deficit disorders. Since reauthorization of the *Individuals with Disabilities Education Act* in 1997 and 2004, the personnel preparation program has focused on preparation of teachers to assist students with disabilities to meet high standards and to use evidence-based instructional practices (Kleinhammer-Tramill, 2010).

In spite of early optimism that the nation’s need for special educators could be filled in a few years and suggestions that market forces might suffice to induce educators to enter the field, the need for additional special education teachers and leaders in the field continues today. Pioneering educators in the field have retired, and demands have continuously grown for more sophisticated instructional practices posed by populations of children who benefit from advanced medical technology and, thus, present with more complex disabilities. Federal expenditures have never been adequate to prepare all of the special educators needed to serve America’s children with disabilities; in fact, federal funding has diminished considerably over time when controlled for inflation (Kleinhammer-Tramill, 2003). Nevertheless, these personnel preparation programs have historically benefitted from bipartisan support because they continue to serve a vital role in building, sustaining and upgrading the profession that serves America’s most vulnerable children.

The priorities established over the past 35 years have fueled ongoing research and development of improved teaching practices, including collaboration, inclusion, early childhood intervention, accessibility, technology, alignment of special education with general education and the new Common Core State Standards, positive behavior and multi-tiered systems of support, just to name a few. Once considered innovative, these priorities have become the standard for effective special education, as well as general education practice, resulting in innumerable benefits to students with and without disabilities. Table 1 provides a representative sample of the personnel preparation programs funded by OSEP over the past 35 years.
## Table 1
### A Sampling of OSEP’s Part D Personnel Preparation Priorities

<table>
<thead>
<tr>
<th>Year</th>
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<th>Priorities</th>
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<tr>
<td>1980s</td>
<td>9th Annual Report to Congress, 1987</td>
<td>- Early Learning (Identification and Support)</td>
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<td>- Interagency Coordination</td>
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<td>- Transition and Secondary Programming</td>
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<td>- Relationships Between General and Special Educators (Collaboration)</td>
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<td>- Least Restrictive Environment</td>
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<td>- Mainstream Instructional Strategies</td>
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<td>- Preparation of Personnel for “Minority Handicapped Children”</td>
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<tr>
<td>1990s</td>
<td>20th Annual Report to Congress, 1998 (following the 1997 reauthorization of IDEA)</td>
<td>- Standards-based Reform (high standards and accountability)</td>
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<td>- Large-Scale Assessment</td>
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<td>- Alternate Assessment (students with significant disabilities)</td>
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<td>- Secondary School Completion (including self-determination)</td>
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<td>- State Improvement and Monitoring (accountability and compliance)</td>
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<td>- Support for Infants, Toddlers and Families</td>
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<td>- Preschool Programs That Prepare Students for Success</td>
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<td>- Effective Intervention for Students with Reading or Behavior Difficulties</td>
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<td>- Overrepresentation and Disproportionality (cultural competence and culturally responsive curriculum and instruction)</td>
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<td>- Research-based Curriculum, Instruction and Services</td>
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<td>- Access, Progress and Achievement in the General Curriculum</td>
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<td>- Academic and Social, Emotional and Behavioral Needs of Students with Autism Spectrum Disorders (ASD)</td>
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<td>- Partnerships for High Needs Schools</td>
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<td>- Positive Behavior Interventions and Supports</td>
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<td>- Needs of Students with Traumatic Brain Injury</td>
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<td>- Assistive and Instructional Technology</td>
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<td>- Preparation in Collaboration with General Education and Disciplinary Experts</td>
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<td>- Integrated Course and Field Work</td>
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Model Programs

Background

The National Center to Improve Recruitment and Retention of Qualified Personnel for Children with Disabilities (Personnel Improvement Center (PIC)), along with the Higher Education Consortium on Special Education (HECSE) and the Council for Exceptional Children (CEC) and its affiliate, the Teacher Education Division (TED), came together in the Fall of 2012 to share ideas on ways to highlight the positive impacts of the federal investments in special education personnel preparation. The PIC, an OSEP-funded technical assistance and dissemination center, maintains a current database of all OSEP-funded preparation programs in special education on its website as well as archival information on expired programs, by focus area. The collaborating organizations decided that the PIC would contact all previously funded preparation programs that focused on one of the following – leadership; autism; early childhood; sensory disabilities or technology - and ask them to complete a short survey. All programs with these focus areas, funded from 2003-2012, were surveyed. The following section provides a summary of some of the model programs identified by the survey. The summaries are based on interviews that were conducted with programs that responded to the survey and provided information on both innovative instructional practices and hiring, retention and employment data.

This section of the document includes a sample of some of the high quality programs funded by OSEP’s personnel preparation programs.

Leadership

Project LEAD, Lisa Dieker, Project Director
University of Central Florida, Orlando

The goal of Project LEAD was to prepare special education faculty through its doctoral program. Full-time scholars completed coursework and research during the program period, culminating in a Ph.D. with specialization in exceptional education.

Project LEAD was very innovative in terms of integrating new technologies such as bug-in-ear coaching, TLE TeachLive (a simulated teaching environment that uses computer-generated avatars to positively impact teacher preparation in education) and services such as Twitter (a social networking and micro-blogging service), Voki (an application that allows users to create personalized avatars for use on blogs and websites), and Google Docs (which allows users to create and share their work online and access their documents from anywhere). All program graduates were certified to teach online, and many completed internships at the Florida Virtual School.

Project LEAD participants were required to take at least two interdisciplinary courses, and were required to collaborate with colleagues in a content area of their choice (e.g., co-teaching with a secondary math professor or conducting research with a faculty member specializing in literacy).
Participants had opportunities to work collaboratively with postdoctoral scholars and to complete brief internships at special education agencies and organizations in Washington, D.C. All participants were required to focus on one of three content areas (i.e., virtual environments, autism spectrum disorders or public policy) and to complete intensive practicum experiences related to teaching, research and/or service projects. The program also sought to recruit a diverse student body in terms of both ethnic background and disability status. Over the course of nine grant cycles, Project LEAD prepared a total of 62 scholars. The program maintained a graduation rate of 98%. In terms of diversity, at least 20 participating scholars identified as ethnic minorities and 14 as having disabilities including learning disabilities, visual and hearing impairments, traumatic brain injury and autism spectrum disorders. One hundred percent of program completers were hired and/or retained in special education positions after graduating from the program.

*Special Education Faculty for California and the Nation, Rollanda E. O’Connor, Project Director*

*University of California, Riverside*

The purpose of the Special Education Faculty for California and the Nation program at University of California at Riverside was to prepare special education faculty and state/local-level leadership. The program emphasized collaborative innovation and creative problem solving, as well as the use of research and technology to address special education-related policy challenges.

Program participants were required to conduct intervention research in local education agencies (LEAs) with high proportions of English Language Learners. The program also included ongoing partnerships with two large, urban LEAs and collaborative coursework with general education faculty related to research methods. Training was multidisciplinary, with coursework taught by faculty in the fields of special education, educational psychology and medicine from throughout the University of California system.

Requirements for graduation included coursework, co-teaching a course on special education inclusion that is a required part of the general education teaching credential program, research and teaching practica and demonstrated mastery in a set of specific competencies.

Graduates of the Leadership Program were prepared to provide both inservice and preservice training to teachers of students with high- and low-incidence disabilities, conduct and publish scholarly research that furthers the knowledge base and improves practice, and hold positions of leadership at universities and at local, state, or national education agencies.

The Leadership Program awarded doctoral degrees to seven participants. Program retention was 100%, and all seven graduates have been hired and retained as special education faculty or research associates. The majority of the graduates continue to be involved in intervention research studies involving 30-60% English Language Learners.
**Project LIFE: Leadership in Family-Centered Intervention Personnel Preparation Program**  
**Mary Frances Hanline, Project Director**  
**Florida State University, Tallahassee**

The purpose of Project LIFE was to prepare university faculty in the area of early intervention. Project LIFE was a collaborative effort that supported a cadre of five leadership graduates in early intervention programs at Florida State University (FSU) in order to equip them with the competencies needed to generate, implement, evaluate and disseminate evidence-based practices and policies for at-risk infants and toddlers and their families.

Project LIFE participants completed a competency-based training that included the following curriculum areas:

- core content for family-centered early intervention leadership, policy and program evaluation, including influences of family, culture, disability and poverty on service delivery and society;
- specialized low-incidence disability content (e.g., severe disabilities, autism);
- evidence-based practice and research methods in collaboration with university faculty and national consultants; and
- professional development, instructional design, technology and teaching in collaboration with state-level Part C programs.

Unique aspects of the program included a multi-faceted mentorship model that included FSU faculty, state-level Part C coordinators and national centers for policy and research. Innovative instructional strategies included requiring students to plan graduate seminars and use new technologies such as Elluminate Live (web-conferencing program) and Skype (voice over Internet provider [VoIP] service with webcam) to communicate with mentors and conduct seminars with national experts. Program retention was 100%, and hiring/retention of program completers within the field of early intervention has also been 100%.

**Autism**

**M.Ed. in Autism Spectrum Disorders for Teachers in the Department of Defense Dependents Schools, Tori Page-Voth, Project Director**  
**University of Maryland, College Park**

This M.Ed. in Autism Spectrum Disorders (ASD) program was developed in response to a needs assessment of Department of Defense Dependent Schools (DoDDS). The program focused on preparation of personnel located in Germany working with students on the autism spectrum, often within the context of inclusive classrooms.
Classes were taught using a combination of face-to-face instruction by visiting University of Maryland faculty and online coursework. DoDDS teachers stationed throughout Germany participated in the program. Many traveled between two and three hours in each direction to attend classes and interact directly with cohort members.

Program activities included:
- academic and social instruction for students with ASD;
- collaboration and co-teaching with teachers of students with low-incidence disabilities;
- supportive partnerships with families of students with ASD;
- working with culturally diverse groups; and
- preparation for serving students with challenging behaviors.

Online electronic learning management systems were set up for each class so that program participants could collaborate remotely on projects and presentations.

The M.Ed. program in ASD had 18 participants, with participant retention of approximately 90%. Participating teachers were located overseas, and in many cases had not had access to special education professional development for more than 10 years. Without this program, the only options available to these teachers would have been to take unpaid leave and return to the United States. All program graduates are currently employed and working with students in the DoDDS system.

**Project Connect, Kyle Higgins, Project Director**
*University of Nevada, Las Vegas*

Project Connect prepared low-incidence special education teachers to address the critical teacher shortages in southern Nevada and northern Arizona. The program included urban and rural partnerships with Clark County School District, the fifth largest LEA in the nation, ensuring that participants trained via Project Connect were qualified to teach in both environments.

Graduates of Project Connect received a M.Ed. in special education with an emphasis on intellectual disabilities and autism. Training focused on core academic instruction for children with low-incidence disabilities ages 5-22, and included field placements that provided opportunities for collaborative teaching in inclusive classrooms.

Program participants received face-to-face mentoring for two semesters during participants’ first years of teaching. LEAs also provided onsite mentors, as well as itinerant mentors, with expertise in low-incidence disabilities. In addition to special education coursework, participants were required to take classes on reading, math and science focusing on access to the general education curriculum. Curriculum emphasized the collection of field-based data and assessment of student progress using a growth model.

Project Connect prepared 58 highly qualified special education teachers in the area of low-
incidence disabilities, with a program retention rate of 100%. All program graduates have remained employed within the field of special education.

The PULSE Pipeline Project to Prepare Urban Leaders in Special Education: Phase II – Moderate and Severe Disabilities, Susan Robb, Project Director
Claremont Graduate University, California

The purpose of the PULSE Pipeline Project was to prepare teachers to work with students with moderate and severe disabilities, including autism.

Objectives of the PULSE Pipeline Project included:
■ recruiting high quality program participants, including those from underrepresented groups;
■ preparing special education teachers with Master’s degrees;
■ teaching core competencies while integrating culturally and linguistically diverse coursework competencies; and
■ providing high levels of support for beginning special education teachers through a proven, highly effective internship model.

Program participants were required to take coursework leading to the California State Credential for Education Specialists – Moderate/Severe, an English Learner California Authorization, and a M.Ed. degree. After initial preservice course and field work, participants taught with an intern credential while receiving high levels of field support, and following that, committed to teach full-time in special education in predominantly diverse, urban elementary and secondary schools.

A range of school partnerships allowed PULSE Pipeline Program participants to intern in urban schools in high need areas of Los Angeles County, San Bernardino County and Riverside County. All participants were paired with experienced mentors or “faculty associates,” who both provided classroom feedback and taught weekend classes for 18 months. Mentors’ dual role allowed for continuity between instruction of program participants and participants’ skill development in the classroom. IRIS modules were used to supplement coursework and fieldwork as individually needed by participants to improve teaching effectiveness.

Based on a total of 51 participants, program retention has been 90% with 35 program completers and 11 continuing participants. Of the 35 program completers, 31 are teaching, two are no longer teaching, and outcomes for the remaining two are unknown.

Training Personnel to Serve School Age Children with Low Incidence Disabilities: Autism Spectrum Disorders, Richard Simpson, Project Director
Communication, Autism and Technology, Jane Wegner, Project Director
University of Kansas, Lawrence
Over the past six years, the University of Kansas (KU) housed two personnel preparation grants dedicated to increasing the supply of special education teachers with expertise in autism. Funds from these grants provided support for 125 graduate students (both full and part-time), the majority of whom completed a master’s degree beyond full endorsement in special education (highly qualified under IDEA). Particularly noteworthy, however, is the fact that the current program began with the first autism-related project at KU, which ran from 1979-1981 (i.e., Integration of a campus and field-based personnel program for children and youth with severe emotional disturbance including those with autism). Since 1990, when ASD prevalence increased dramatically, KU has enrolled a minimum of 20-25 graduate students annually in this program. Because of the investment OSEP made over 34 years ago, the University of Kansas has one of the longest standing graduate programs specializing in preparing teachers to meet the unique needs of students with Autism.

**Early Childhood – Birth to Five**

*Project DIRECT Connections: Defining Itinerant Roles for Early Childhood Teachers/Personnel Training to Support Itinerant Early Childhood Special Education Teachers Across Ohio, Bill McInerney, Project Director University of Toledo, Ohio*

The purpose of Project DIRECT Connections was to prepare preschool special education teachers to provide itinerant early childhood special education services throughout Ohio. Participants were already employed by LEAs but were teaching with less than a full credential. Upon completion of the program, graduates received either an intervention specialist license (valid for teaching young children with disabilities ages 3-8), or Early Education of the Handicapped (EEH) validation (valid for teaching children with special education needs, ages 3-5). The 27-hour semester program of study included coursework, seminars and field-based practica. Participants also completed two, 120 hour, field-based practicum experiences, including a preschool practicum and a primary (K-3) practicum.

Coursework and seminars were delivered over the Internet using Blackboard (an online learning management system). Participants completed their practica in settings close to their homes, and used Flip Videos and FlipShare (a website designed for privately sharing Flip Videos) to videotape themselves, post their videos online and receive feedback from Project DIRECT Connections staff. Project DIRECT Connections contracted with professionals throughout the state to provide high quality supervision for practicum placements. Participants were also required to meet twice a year in Columbus, Ohio with project staff and network with other members of their cohort. A program website served as a comprehensive information source as well as a means of communication for participants and supervisors.

Preservice coursework reflected current research and pedagogy related to participation and achievement of young children with a wide range of disabilities. Topics included:

- general education curriculum and improved outcomes for children with disabilities;
- provision of coordinated services in natural environments to improve outcomes for infants and toddlers with disabilities and their families;
The Federal Investment in Personnel

- integrated training and practice opportunities that enhance collaborative competencies of personnel who share responsibility for providing effective services for children with disabilities; and
- knowledge of how policies and laws regulate special education service delivery.

The program also developed a tool, Performance Indicators for Itinerant Early Childhood Education Specialists (PIECES), for use in supervising participants serving as itinerant early childhood special education teachers.

Project DIRECT Connections had 28 program participants, 25 of whom (90%) completed the program. Of these, 24 were hired and retained in the field of early childhood special education for at least two years following program completion.

Parents as Partners: Preparing Teachers to Teach Children Who are Deaf and Hard of Hearing and Their Parents in Early Intervention and Early Childhood Settings, Mary D. McGinnis, Project Director
University of San Diego/John Tracy Clinic, California

The purpose of the Parents as Partners program was to prepare education specialists/teachers of the deaf and hard of hearing in early childhood settings. The project sought to recruit a culturally and linguistically diverse pool of teaching candidates to complete a M.Ed. in Deaf and Hard of Hearing (DHH), leading to a California DHH credential. The University of San Diego partnered with the John Tracy Clinic to design and operate the Parents as Partners program.

Participants were given the option of taking part in a full-time, onsite, one-year program, or a two-year, part-time, distance learning program. Both programs required summer residencies at the John Tracy Clinic, including an international summer institute where program participants were immersed in the daily activities of parents and children from around the world. In order to better understand parent perspectives, each program participant was required to shadow a family for an entire day, as well as attend three family support group meetings.

Participants in the distance learning program communicated with each other via Facebook and threaded online discussions. Course content focused on the development of competencies in the following areas:
- using evidence-based practices that improve outcomes for families and children;
- integrating training and practice in family-focused early intervention and early childhood settings;
- being sensitive to cultural, linguistic and socioeconomic diversity; and
- working with young children with cochlear implants and other advanced amplification technologies.

Program participants were required to take part in a telepractice workshop designed to better serve children and their families residing in rural or remote areas. To ensure that participants in the distance learning program received appropriate support throughout the year, all participants
were required to bring an approved, onsite mentor to the summer residential portion of the training program. Participants and mentors attended many training sessions in tandem, and mentors also participated in additional mentorship training. Mentors were further required to maintain weekly contact with the program administrator throughout the year.

Parents as Partners had 23 participants, only one of whom did not complete the program. Of the remaining 22, 100% have been hired and retained within the field.

*Project CHILDD: Communities Honoring Individuals of Cultural and Linguistic Diversity with Disabilities, Vicki Stayton, Project Director*  
*Western Kentucky University, Bowling Green*

The purpose of Project CHILDD was to increase the number and quality of early intervention and preschool personnel who are fully certified to serve children with disabilities and their families. All participants received preparation to work with children with disabilities ages birth through five years and their families, as well as preparation to work in settings that include children with a range of disabilities.

Program curriculum included both coursework and field experiences based on current research and evidence-based practices. Unique aspects of the program included a focus on low-incidence disabilities and cultural and linguistic diversity. The majority of program’s faculty were certified in low-incidence disabilities, including autism. Project CHILDD participants were required to complete a course on low-incidence disabilities. At least one field experience took place in an inclusive preschool placement serving young children with low-incidence disabilities. Program administrators used a matrix to assess course and field placement content regarding the degree to which they addressed cultural and linguistic diversity. Family panels and field placements were designed to include families from diverse backgrounds, and the entire cohort was required to attend one seminar, book club meeting or workshop each semester addressing issues relating to diversity.

A family advocate ensured that a family-centered focus was emphasized throughout the program. This individual facilitated the involvement of family members, including those from culturally linguistic and diverse backgrounds, in various aspects of Project CHILDD implementation. For example, the family advocate, a mother of two young children with disabilities, was responsible for developing and maintaining a directory of families of young children with disabilities willing to serve on panels, conduct guest talks in class, accept program participants for placements in home settings and/or serve on advisory groups. In terms of field placements, participants were each required to work with one family (including spending time with the family doing routine things in order to gain a clearer understanding of the impact of having a child with a disability), conduct a family assessment and develop an Individualized Family Service Plan (IFSP) and implement at least one IFSP goal. In order to facilitate this, the family advocate initiated communication with families, placed Project CHILDD participants, and put together sample forms for use by participants when communicating with families. Family members were asked to complete surveys at the end of each placement evaluating program participants’ performance. As part of the 36-hour degree program, coursework included at least four family panels.
Project CHILLD had approximately 40 program participants, and a 95% program retention rate. All but one program completer were hired in the field of early childhood education, including state-funded preschools, inclusive public school settings and Part C positions.

_Unified Early Childhood/Special Education Proteach, Penny Cox, Project Director_
_University of Florida, Gainesville_

The university’s special education faculty received a grant from 1992-1996 specifically designed to integrate Florida’s Early Childhood and Early Childhood Special Education Master’s level preparation programs. This integration was important for two reasons: (1) The benefits of early intervention are well documented; and (2) mainstream early education personnel play a critical role in identifying most toddlers with disabilities, so the ability to detect early warning signs in young children is critical. The initial grant supported training for 34 candidates, who also received a M.Ed. in Early Childhood Education. Eleven years later, this integrated program continues and 319 teachers who serve in public schools and inclusive early childhood programs around the country have graduated.

_Sensory Disabilities_

_Rural Teacher Preparation Grant and Multicultural Teacher Preparation Grant_  
_Susan Rose, Project Director_  
_University of Minnesota, Minneapolis_

The purpose of the Rural Teacher Preparation Grant was to help teacher candidates committed to living in rural areas earn initial licenses in deaf education. The program represented a collaboration among University of Minnesota (UMN) faculty; state directors of special education in Wisconsin, Iowa, Minnesota and North Dakota; other IHEs throughout these four states; and LEAs.

Program participants were newly licensed elementary and secondary teachers or speech language therapists currently working in rural schools.

As part of the two-year program, participants were required to attend a four-week summer session that included a three-week field placement at the Minnesota State Academy for the Deaf, in addition to attending the statewide conference for teachers of the deaf and hard of hearing. The program paired participants with mentors who met both face-to-face during summer sessions and conferences, and online throughout the year. Licensed teachers of the deaf also provided supervision on a weekly basis. The coordinator of field experiences and mentoring supported mentors throughout the year and provided small stipends for their time. Because 95% of participants were already working in rural LEAs, field placements were rarely needed.

Innovative practices included recruiting program participants by contacting rural LEAs, and paying IHEs throughout the four participating states to provide advisors for participants living nearby. By ensuring that participants could earn credit on local campuses for courses comparable to those
offered by the UMN, these collaborations between UMN and surrounding IHEs helped reduce travel time for participants.

In terms of outcomes, 89% of the 54 participants completed the program, and all 48 program completers were hired in the field. Five years after the Rural Teacher Preparation Grant’s conclusion, retention rates were at 98%.

The purpose of the Multicultural Teacher Preparation Grant, also sponsored by UMN, was to prepare teachers of the deaf to serve multicultural deaf students in urban areas. Most participants were recent college graduates with little teaching experience. The program emphasized cultural awareness and sensitivity. For example, students were required to attend a multicultural seminar and worked with faculty and local agencies to develop DVDs on Hmong and Somali cultural practices. Field experiences took place in high-diversity schools, and families from a variety of backgrounds were paid to host program participants for dinner in order to better sensitize participants to cultural differences. A multicultural advisory board included both African American and Hispanic parents of children with deafness and/or hearing impairments. As part of the required coursework, advisory board members spoke on panels and provided informal mentorship to participants.

Fifty participants were admitted to the program, and 45 completed it. Of these, all were hired by inner city schools with highly diverse student bodies and 82% are still working in these positions. None have transferred to suburban schools and/or LEAs offering higher salaries. Seven percent of participants were from minority backgrounds.

Technology

Technology in Special Education Teacher Preparation, Cynthia Pearl, Project Director University of Central Florida, Orlando

The University of Central Florida (UCF) has received multiple OSEP-funded grants to support preparation of special education teachers and has used a wide array of technologies to deliver instruction and engage student learners.

For example, the university offers a fully online Master’s program that serves participants throughout the state. Faculty members are required to receive training and may access instructional design support at any time from Course Development and Web Services (CDWS), an organization within the UCF’s division of Information Technologies and Resources. Canvas (an open-source learning management system) serves as UCF’s online course platform. It is supplemented by Adobe Connect (which enables web conferencing). These programs allow faculty and students to give live PowerPoint presentations, chat, participate in polls, share resources, send video email and meet individually or in small groups. UCF faculty members have published an article on their innovative uses of Adobe Connect.

UCF is committed to the idea that the use of technology can support universal design for learning (UDL). For example, students are often allowed to demonstrate knowledge through uploaded voice threads or videos as well as traditional essays, with the expectation that this exposure will
help ensure that program participants feel comfortable providing this same array of customized teaching and learning options to their own students when they graduate.

The severe/profound and autism certificates required remote supervision of internships. Many participants were located at a significant distance from UCF, and remote supervision allowed supervisors to spend more time observing and providing feedback as opposed to traveling to and from internship sites. This was originally handled via webcams and Skype, but now is done via Adobe Connect video-conferencing. When teaching participants to increase specific teaching behaviors, bug-in-ear coaching is also used. Doctoral students are all trained to provide remote supervision.

Another UCF innovation is the Mentor/Demonstration Site Program. Each mentor/demonstration site is considered an exemplary setting and serves to integrate coursework and field experience for students in the severe/profound and autism programs. In addition to providing one-on-one support to program participants and supervising field experiences, mentor teachers at these sites offer online presentations on best practices via Adobe Connect and create short video clips on specific topics to be included in UCF’s video library.

With support from Lockheed Martin, UCF developed TLC TeachlivE, a lab that enables OSEP-funded program participants and others to practice teaching in a simulated environment. Participants are assigned avatars and given feedback by expert teachers on their use of evidence-based practices with students (played by professional actors) with a wide range of learning and support needs.

Although UCF has not yet gathered information specifically on the impact of these technologies on program graduates’ teaching practices, a follow-up study based on survey and interview data will help the program answer this question.

The programs described above represent just a tiny fraction of the personnel preparation programs that have targeted communities’ specific needs using innovative tools to recruit, train and retain highly qualified special education teachers and leaders. Many others across the country also demonstrate how the federal investments have led to targeted improvements, not only in practice, but also in outcomes. A number of other programs at IHEs are featured on CEC’s website at http://www.cec.sped.org/Policy-and-Advocacy/Current-Sped-Gifted-Issues/Spotlight/IDEA-Personnel-Preparation-Program-In-Action.

The Role of National Centers in Increasing the Quantity and Quality of Special Education Personnel

The previous section of this document highlighted the federal government’s impact on improving both the supply (quantity) of the special education workforce and the quality by focusing on direct funding to IHEs. This section of this document focuses on another equally important dimension of this work – how the federally funding centers are impacting the capacity of IHEs to increase both the quantity and the quality of individuals who are being prepared by the IHEs to
serve the nation’s most vulnerable students.

Beyond investing directly in workforce capacity through funds made available to IHEs, OSEP’s personnel preparation program has had a profound and far-reaching impact on developing innovative special education practices, in part by increasing capacity through the direct funding of national centers. In many ways, the priorities established by OSEP for personnel preparation projects have paved the way for change and innovation.

The following brief summaries of innovative national centers funded by OSEP further illustrate how university faculties are advancing these priorities by taking advantage of the supports provided by the national centers.

*The Alliance Project*

Recognizing the need to develop a culturally responsive special education workforce, OSEP funded the Alliance Project from 1990-1996 and Alliance 2000 from 1996-2003. Minority Serving Institutions (MHIs) provide 24% of the nation’s personnel preparation programs, which means they are an essential part of the pipeline, supplying nearly a quarter of the teacher workforce. Between 1992 and 1999, in an effort to improve the quality of their personnel preparation programs, 1,253 faculty members from 261 MSIs took advantage of Alliance outreach services. In just eight years (1991-1999), OSEP’s personnel preparation grant awards to MSIs increased from 20% to 30%.

*The Monarch Center*

Building on the success of the Alliance projects in developing a culturally responsive workforce, OSEP established the Monarch Center in 2003. Like the Alliance projects, Monarch’s expert staff of mentors, facilitators and trainers provides outreach activities and technical assistance to MSIs. These no-cost services enhance the ability of MSIs to compete for federal funds needed to improve and develop their personnel preparation degree programs – especially those that focus on preparing special educators to serve students who are culturally and linguistically diverse.

*The IRIS Center*

In 2001, OSEP funded the IRIS Center for Faculty Enhancement (IRIS-I) to minimize the research-to-practice gap by providing free, reputable, online interactive training to key stakeholders (e.g., teacher educators, state department personnel, school leadership, practitioners, school nurses, and school counselors). The Center has developed a variety of resources and tools, with the IRIS STAR Legacy Modules being among the most popular. The modules provide web-based instruction for working with students with disabilities. Topics include up-to-date information on assessment, progress monitoring, assistive technology, behavior and classroom management, collaboration, content instruction, differentiated instruction, learning strategies, RtI, transition, and classroom diversity. Many modules are also offered in Spanish.

In 2006, OSEP awarded an additional five years of funding to the IRIS Center (IRIS-II), which supported expansion across three sites, and then again in 2012 to continue its reach. Extending
earlier work, IRIS-III targets teacher educators and professional developers so that next generation school personnel are better equipped to meet the needs of an increasingly diverse student population, including those with disabilities. Recent survey results confirm IRIS-II’s impact (see Montrosse, 2012). For instance, findings regarding respondents’ use of the online materials were in the 80th and 90th percentiles – a range typically considered extensive. The IRIS Center was refunded for a third time beginning January 1, 2013. Its work has been extended to include: the development and distribution of resources about students ages birth to 21 with a focus on students with disabilities; and the delivery of services and training to college faculty and professional development providers who deliver personnel preparation efforts to new and practicing educators.

The CEEDAR Center

Funded by OSEP in 2012, the Collaboration for Effective Educator Development, Accountability and Reform (CEEDAR) Center, is a national technical assistance center focused on teacher preparation. CEEDAR’s goals are to: (1) reform teacher and leadership preparation and induction to incorporate evidence-based strategies; (2) revise licensure standards to align with reforms in teacher and leader preparation; (3) refine personnel evaluation systems to evaluate and improve teacher and leader preparation programs; and (4) align policy structures and professional learning systems, so that states and IHEs can better prepare students with disabilities to meet college and career ready standards. The partnerships that the Center has established are critical to meeting its goals; the Center has established Networked Improvement Communities to facilitate this. Although it is too soon to assess the project’s impact, CEEDAR has the potential to make significant changes in teacher preparation.

84.325T Program

The 84.325T Personnel Development program (Personnel Development To Improve Services and Results for Children With Disabilities—Special Education Preservice Training Improvement) is an example of one of OSEP’s relatively small investments in targeted reform, which has yielded far-reaching benefits. This program challenged higher education personnel preparation education faculty to improve their preparation programs in high incidence disabilities by: (1) integrating training and practice opportunities for general and special educators; (2) preparing special educators to address the specialized needs of children with high incidence disabilities from diverse cultural and language backgrounds; (3) providing extended clinical learning opportunities, field experiences, or supervised practica and ongoing high quality mentoring and induction; (4) including field-based training opportunities in diverse settings (including schools and settings in high-need communities and in schools not demonstrating Adequate Yearly Progress (AYP) under the No Child Left Behind Act (NCLB)); (5) meeting the HQT requirements; and (6) providing student support systems (including tutors and mentors) to enhance retention and success in the programs. Eager for reform of existing preparation approaches, faculty in many institutions embraced the challenge. Since 2006, 78 university special education personnel preparation programs have joined in this reform effort.
The Systemic Impact of Personnel Preparation Programs on Capacity

The link between doctoral granting universities (DGUs) and outcomes for students with disabilities has been well documented. The approximately 100 DGUs that offer degrees in special education serve as the primary source of knowledge generated through research resulting in the development and validation of evidence-based practices. While DGUs prepare the next generation of teachers and other practicing professionals, they alone produce the next cadre of doctoral faculty who staff the nation’s 1,100 SE teacher education programs, which in turn prepare the vast majority of future special education teachers and school leaders who directly serve infants, toddlers, children and youth with disabilities. These newly trained practitioners work in a variety of capacities providing students with disabilities a free appropriate public education to improve their academic and nonacademic outcomes.

The IHE faculty-practitioner relationship is further connected by the fact that the pool of prospective doctoral students comes from this practitioner base because all DGUs offering degrees in special education require documentation of teaching and other field experience. This is not simply a gate-keeping mechanism, but rather, based on an astute observation that real-world knowledge is a key component for developing and validating research-based strategies that can easily be translated into practice. A disruption in any part of this interconnected chain will produce a significant domino effect and would ultimately lead to fewer trained personnel and in turn, significant numbers of students with disabilities not having access to highly qualified personnel.

Comprehensive efforts to monitor this system began in 2001 when OSEP commissioned the Faculty Shortage Study (Smith, Pion, Tyler, Sindelar, & Rosenberg, 2001). The study documented a shortage of special education faculty in teacher and leader preparation programs. This study has been used to pursue an evidence-based policy agenda. The report has been referenced numerous times in congressional committee reports and other documents. The study data helped generate an increase in appropriations to support the doctoral training programs.

More recently, OSEP supported the Special Education Faculty Needs Assessment (SEFNA) project to collect data on special education’s capacity to produce a highly qualified workforce (Smith, Montrosse, Robb, Tyler, & Young, 2011). The study showed that although there has been an increase in new special education doctorate degrees awarded since the 2001 study, it projected that the demand for new special education faculty will increase, noting anticipated retirements from an aging faculty workforce. Data from the SEFNA study indicate that conservatively, half of the faculties at DGUs will retire between 2011 and 2017. More liberal estimates place the proportion higher with projections that two-thirds will retire in the same time period.

Using the most conservative estimates produced from SEFNA, Figure 1 projects the implications of this predicted shortage. If only half of the faculty at DGUs retire in the next several years, it will lead to a 50% reduction in the number of special education teacher educators and educational leadership faculty. This is because prior research has shown that only about 50% of graduates of DGUs pursue faculty positions (Montrosse & Young, 2012; Smith & Montrosse, 2012; Smith,
Robb, West, & Tyler, 2010; Smith, Pion, Tyler, Sindelar, & Rosenberg, 2001; Tyler, Montrosse, & Smith, 2012). Further, if the number of special education teacher educators and educational leadership faculty is diminished by half, the capacity of these programs is also diminished by half and as a result, the number of new special education teachers and school leaders will also decrease. If the number of new special education educators flowing into our school systems constricts by these projected amounts, it will have catastrophic implications ensuring that students with disabilities have complete access to the general education curriculum and are held to the high academic standards for all students.

It is difficult to estimate the number of students served by each special education teacher. Estimates average 20 students per teacher, with a range of 9 to 35 students (Montrosse & Young, 2012). Figure 1 uses the average caseload estimate and assumes that caseloads remain stable from 2011 to 2017. Assuming if these assumptions hold, for each missing faculty member at DGUs, an estimated 300 students with disabilities will be underserved.

The SEFNA study (Figure 1), which indicates a more drastic shortage of the looming special education faculty shortages, has not received the traction of the earlier study. After the release of the 2001 study, the number of OSEP leadership preparation projects increased to more than 20 new projects per year. But the FY 2012 number of leadership projects supporting the preparation of new faculty dropped to nine. Recent congressional discord over looming budget deficits has also clouded the issue of increased funding to support personnel preparation programs.
The Path Ahead: Conclusions and Recommendations

Clearly, the Part D discretionary grants, especially the personnel preparation grants, have demonstrated their effectiveness in training special education teachers and leaders at both the pre-K-12 and higher education levels. The Part D grants have helped to ensure that the special education workforce is knowledgeable and effective. Although the shortage of higher education faculty, researchers and special education teachers remains a concern, there is no doubt that the previous 35 years of personnel preparation grants have helped to increase both the collective capacity to offset shortages as well as produce and expand an important knowledge base for the field of special education. The impact on general education overall, while not a focus of this paper, is also noteworthy.

It is important to remember, however, that the most important contribution of the federal investments in teacher and leadership preparation is the continuous improvement of teaching and research that benefits children and youth with disabilities and their families. The real beneficiaries of the Part D investments are in fact the infants, toddlers, children and youth with disabilities who receive services through Parts B and C of the IDEA. As noted by Paula Goldberg, former Director of the National Parent Technical Assistance Center:

Our kids can only learn when they are taught by excellent teachers, and those teachers can only teach well when they have been taught by special education faculty who are themselves excellent teachers and researchers. Over the years, these teachers and leaders have been instrumental in bringing new evidence-based practices to our schools and families, particularly in areas such as assistive technology, autism, behavioral challenges, and instruction that supports all students with disabilities in meeting national and state standards.

The federal government has a unique role to play in investing in the development of a workforce to carry out the mandate of IDEA. Skilled personnel are the key to ensuring a free appropriate public education. Without highly skilled personnel, closing the achievement gap will remain an unattainable goal. The investment in leadership personnel – those who prepare the preparers of new personnel – is also a unique and important federal investment that yields a long-term ripple effect.

The federal investment has provided incredible opportunities to aspiring teachers and leaders in special education and the children and families they serve. Looking toward the future, there is a continued need to ensure that the special education workforce continues to be robust and effective, and that leaders, researchers and teachers have the skills needed to improve outcomes for students with disabilities in an increasingly complex and challenging world. The need for high quality teachers and leaders continues. The need for federal support for personnel preparation programs remains in order to ensure the effectiveness of the workforce and bright futures for the six million infants, toddlers, children and youth with disabilities and their families served in our nation’s schools and communities.
ENDNOTES


2 Until recently, children with cognitive disabilities were labeled ‘mentally retarded.’ The authors have chosen to use the current descriptor rather than the out-dated term.


5 http://www.monarch@uic.edu

6 http://iris.peabody.vanderbilt.edu

7 http://www.ceedar.org/

8 The NCLB, P.L. 107-100, was the 2001 reauthorization of the Elementary and Secondary Education Act.

9 For a thorough discussion, see Smith, Robb, West & Tyler, 2010.

10 For a more thorough discussion, see Montrosse, Smith, Tyler, Robb, & Watson, 2011.

References


Personnel Improvement Center
National Center to Improve Recruitment and Retention of Qualified Personnel for Children with Disabilities

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