This paper traces the history of leadership training in the field of special education as a context for a projection of future leadership personnel needs. The current situation in supply and demand for special education leadership personnel is analyzed, and it is found that the number of available personnel is dwindling while the number of job openings is remaining constant or increasing. A discussion of concerns for the future focuses on how much specialization is desirable and a discussion of which content areas and skills are important for special education leadership personnel considers such areas as assistive devices, multicultural education, ergonomist skills, and distance education. The paper calls for changes in federal support of doctoral programs in such a way as to dedicate a substantial portion of leadership funding to doctoral student support while retaining funds to be allocated to new programs in new areas of specialization. The question is raised as to whether the Comprehensive System for Personnel Development is the best vehicle for data collection and analysis of leadership personnel, and it is concluded that the field is facing a critical shortage of both generalists and specialists, that the breadth of the field is expanding, and that a national data collection system is needed. (8 references) (JDD)
HISTORY AND FUTURE NEEDS OF DOCTORAL TRAINING IN SPECIAL EDUCATION

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Abstract

The need for leadership personnel in the field of special education is soon to reach critical levels. Supply and demand variables are currently not in balance, and the demand will significantly exceed the supply in the years to come. Although a few doctoral programs existed in the 1950s before federal funding became available, this onset of incentives led to great expansion of programs and a corollary increase in leadership personnel. Justification for federal funding centered on the need for leadership personnel to prepare teachers and other direct service providers to work with children with disabilities in school settings. Once again, the shortage of special education direct service personnel has reached critical proportions. This shortage is compounded by an expanded concept of what special education is and what services individuals with disabilities and their families acquire and are entitled to by law.

In this paper, we present a short historical perspective of leadership training, a description of the current situation, and our notion of emerging directions that will require new cadres of special education experts and a greater supply of traditionally prepared leaders as well. We not only describe the complexity of special education, but also raise issues the field must address in the future.
HISTORY AND FUTURE NEEDS OF DOCTORAL TRAINING IN SPECIAL EDUCATION

In response to the charge by the Higher Education Consortium for Special Education (HECSE), this paper will trace the history of leadership training in the field of special education, as a context for a projection of future leadership personnel needs. To predict the future, we believe, one must know the past; therefore, we start by presenting how leadership training emerged, developed, and functions today.

Historical Perspective

As we attempted to document the evolution of leadership training in special education, we found a range of conflicting and incomplete oral histories. However, with the special assistance of long-standing special educators -- Dick Schofer, in particular -- we were able to document the historical facts presented in this paper. This section is intended to provide a historical overview, not be comprehensive or detailed. The more comprehensive treatment is left to a future manuscript, which deals exclusively with the history of leadership training.

Before the passage of federal laws that provided financial support to leadership training, 27 universities offered doctoral training in special education (see Table 1). On
September 6, 1958, Public Law (PL) 85-926 was approved. This law authorized the awarding of grants to IHEs to prepare personnel in fields relating to the education of children with mental retardation and to SEAs for the purpose of awarding fellowships or traineeships to persons preparing to work in the field of mental retardation. This 10-year program was referred to by the U.S. Department of Health, Education, and Welfare's Office of Education as the "Graduate Fellowship Program for the Preparation of Leadership Personnel in the Education of Mentally Retarded Children."

Under the auspices of PL 85-926, each SEA was allocated two fellowships. Additionally, 15 IHEs received support (see Table 2) to prepare personnel in mental retardation, whether teachers, supervisors, or teacher educators. Master's degree students received a $2,000 tax-free stipend plus $400 per dependent, while doctoral students, depending on their level of graduate study, received between $2,400 and $2,800 and a dependency allowance. A comparison of Tables 1 and 2 reveals that several IHEs reporting special education doctoral degrees in 1954 were not funded in the academic year 1959-60 when PL 85-926 was in actual operation. On August 14, 1959, PL 85-926 was amended through PL 86-158; however, it continued to be
referred to as PL 85-926. These amendments provided IHEs with funding to support the graduate programs attended by fellowship recipients. The additional funds were intended to cover tuition, fees, and other programmatic costs, for a total of $2,500 for each fellow.

The first actual academic year of operation for PL 85-926 was 1959-1960. According to Schofer (1962), in the 1961-1962 academic year, 21 IHEs were awarded fellowships, four other IHEs received start-up funds, and 46 SEAs awarded their two allocated fellowships. By 1962, 281 individuals received fellowships and almost $1 million had been spent each year of the program's operation.

In September of 1961 PL 87-276 was signed into law to provide specific support for the funding of teacher preparation programs for teachers of the deaf. Approximately two years later, on October 31, 1963, President Kennedy signed PL 88-164 into law. This law, cited as the "Mental Retardation Facilities Construction Act of 1963," contained three titles (construction of research, clinical, and service facilities for the mentally retarded; construction of mental health facilities; and training of teachers of the mentally retarded and other handicapped children), and amended PL 85-926 through
Section 301. The amendment expanded federal training programs beyond the training of teachers in mental retardation to include: hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, and other health impaired. This amendment also provided for personnel preparation of researchers in fields related to children with handicaps. (It did not, however, use the term, "leadership" training.) In addition, this law also expanded the types of traineeships to include seniors enrolled in undergraduate teacher preparation programs.

The field of special education grew at an exponential rate starting in 1959, PL 85-926 funded 15 doctoral granting programs in mental retardation and an additional five programs offering only master's degrees. By comparison, in 1964, 139 IHEs received fellowships for the preparation of professional personnel in the education of handicapped children.

The Current Scene: Supply and Demand for Special Education Leadership Personnel

There is, and will continue to be, a great need for doctoral level personnel to fill a variety of roles that benefit people with all types of handicaps. Partly, the growing demand for leadership personnel in special education is caused by a substantial loss of leaders, due to various attrition patterns (e.g., retirements, promotions, and career changes).
The need for leadership personnel in special education is well documented. Paper after paper delivered at the 1988 "Excellence in Doctoral Leadership Training Conference" made the same statement: The supply of special education leadership personnel will not meet the demand in the immediate future. The impending shortage will impact all levels of leadership: Local Education Agencies, Institutions of Higher Education, State Education Agencies. The shortages in leadership personnel are occurring concurrent with shortages of other special education professionals (e.g., teachers, related service personnel, community service providers) making the need for leadership personnel who prepare district service personnel even more critical.

Widespread nationally faculty shortages are predicted to be growing at a rate of at least 10% per year for the next five years for both Colleges of Arts and Science (Bowen & Schuster, 1986) and Colleges of Education (El-Khawas, 1989). The shortages in special education departments, which are already occurring, will be at least as critical.

In a comprehensive doctoral follow-up study, Bunsen (1989) found that the number of conferred doctorates in special education is insufficient to fill current and projected faculty vacancies in the nation's IHEs. Smith and her colleagues (Smith & Lovett, 1987; Smith, Morsink, Cross, Smith-Davis, & Lovett, 1986; Smith, Pierce, & Keyes, 1988) have studied the
supply and demand of special education faculty members for some time. Their surveys suggest, that institutionally supported special education faculty positions are quite stable: very few departments are losing special education faculty positions and losses at some IHEs tend to be balanced by faculty additions at other IHEs. Thus any instability seems related to losses or gains in federally supported faculty positions, rather state funded, tenure-track positions. In 1987, Smith and Lovett predicted an annual 10% turnover rate of special education faculty members (a need for 362 individuals) due to retirements alone, beginning in 1990. However, recent data collected by Smith et al. (1988), indicate that resignations due to retirements are ahead of earlier projections. For example, the number of retirements reported in 1987-88 were more than double the number of retirements reported for 1985-86. These latest data, suggest that considerable numbers of special education faculty are leaving their positions for promotions within their universities, early retirement, death, and career changes. In addition, a disproportionate number of special education faculty members are in the 50+ age range at the rank of professor, with almost half that number available to replace them in the 40-50 age range at the associate professor rank. Therefore, predictions of a 10% turnover rate per year among special education faculty members is likely to be conservative.
The results of these studies point to an imbalance in the supply and demand of special education faculty now and in the near future. To reach a state of balance requires an additional increase in the production rate of doctoral graduates because of the reduced propensity of these individuals to select universities as their place of work. In their 1988 study, Smith et al. analyzed the graduate follow-up data of over 40 special education leadership training programs. These data showed that many special education doctoral graduates are filling roles outside of colleges and universities. Unfortunately, data are not available to enable a comparison between the career choices of recent graduates and those who graduated more than 10 to 15 years ago. However, the situation can be compared to the state of special education leadership programs when these began some 25 to 30 years ago. Thus, in the late 1950s and early 1960s, when funding for support of doctoral training was initiated, it is estimated that over 85% of doctoral graduates took jobs in IHEs upon completion of their degrees (Bunsen, 1989). These demographics have changed markedly. According to Smith et al. (1988), only 33% of special education doctoral graduates are in faculty positions in IHEs (with an additional 15% working in nonfaculty IHE positions). However, Bunsen and Bullock's (1988) data reveal that a higher percentage of the 1988 graduates were employed by IHEs, with 58% assuming a variety of positions.
Regardless of the variance between these two studies in terms of the proportion of leadership personnel electing to work in IHEs, the number of doctoral graduates choosing this career path has obviously declined.

Concomitant with a broadening range of career options available to special education doctorates, the number of graduates is declining. Sindelar and Taylor (1988) plotted the number of special education doctoral degrees awarded across six years (1976-1982) by using Digest of Educational Statistics. They found a significant decline in the number of special education doctorates graduating during this period. In addition these authors tracked the number of advertisements for special education faculty positions appearing in the Chronicle of Higher Education, and discovered that the number of job advertisements are increasing at a steady rate. A comparison of these two data sets would suggest that in 1990 the number of new special education doctoral graduates was not equal to the projected number of faculty positions vacancies predicted for that year.

Smith et al. (1988) reached similar conclusions based on their analysis of follow-up data. Thus, noted a decrease in the number of special education graduates from schools that are members of HECSE. For example, from 1980-1981 to 1983-1984, these programs graduated an average of 5.3 students per year. In comparison, from 1984-88, they graduated an average of 4.2
students per year. A reduction of one graduate per leadership training program might not seem substantial, however, extending these data from the 40 HECSE-member universities alone suggests that approximately 42 fewer individuals graduated in 1988, compared to the early 1980s. No such comparisons can be made for doctoral granting universities that are not HECSE members; however, their production rate seems to be quite stable at slightly more than two graduates per year per IHE.

Smith and her group also studied the size of application pools for jobs during the time between 1986 and 1988, and found many application pools with only two applicants. Smaller applicant pools support the notion that the number of available IHE personnel is dwindling, whereas the number of job openings is remaining constant or increasing. Thus, the need for leadership personnel in special education who will assume faculty positions at IHEs is real.

The Future

A recurring concern in the field of special education has over the years centered on how much specialization is desirable and necessary for special education leadership personnel. Some claim that special education, as a field, has become over-specialized and the training of many leadership personnel too narrow. The implication behind this argument is that graduates of these doctoral programs do not possess a sufficient breadth
of knowledge about special education to comprehend complex
issues or transmit general knowledge about children and youth
with disabilities to others. Thus, it is assumed that
individuals so prepared will not be able to function properly
or fully in the field in general. Conversely, others contend
that special education leadership personnel are trained without
sufficient depth (i.e., specialization).

Given the variability of leadership preparation programs
across the nation, some individuals are prepared as
specialists, others as generalists. Clearly, the field must
remain vigilant so as to maintain an appropriate balance by
preparing leadership personnel who have both an adequate
breadth across the field of special education and a depth of
knowledge within a specialty area.

In our view special education leadership personnel active
in the '90s must be versatile, possessing both general and
specific knowledge. For example, the special education expert
in technology must possess cutting-edge knowledge about
computer applications to the education of students with
disabilities, but have general special education knowledge as
well. Thus, this professional must be knowledgeable about the
history of the field of special education in order to advocate
effectively for new legislation in support of technology.
Also, these while professionals may have been hired primarily
because of their specialization in technology, they are likely
also to be required to teach other, more general courses.
Types of specializations needed. Whether leadership personnel fill roles as specialists or generalists, the following areas and skills are envisioned as important for special education leadership personnel during this decade and beyond.

1. Issues relating to implementation of the American Disabilities Act will be prominent, including ergonomist skills will be required. Such training programs would prepare leaders capable of developing "environment-ability" compromises -- any environment is altered to accommodate particular disabilities. Such professionals should also able to develop profiles of compensations required in transportation, work environments, service delivery environments (e.g., social services), architectural modifications, and perhaps instructional environments.

2. High-quality and effective remote-site delivery of instruction of (distance education) will require specific personnel preparation. A variety of delivery approaches are necessary and appropriate for instruction in remote and rural areas. For example, computer technology, audio conferencing, video-taping, and other instructional techniques will be fully incorporated into instructional delivery.

In the near future special education leadership personnel may need to possess basic competencies in distance-delivery technology. This mode of instruction, first developed for use
in rural sites, also offers advantages for large urban settings where distances from one site to another might not be great, but where population density makes travel time extraordinary. Depending on cost and results from studies undertaken to determine whether it is an effective instructional delivery system, distance delivery may become as popular as using an overhead projector. At any rate, special education teacher educators must be prepared to assume leadership in this emerging area.

3. Other technological applications of instruction will emerge in this decade as well. For example, computer-related technology, video-disks, VCR, and CD-ROM will be used by developers of curricula and instructional materials. As a result, leadership preparation might include minor areas of study in topics such as computer applications, media presentations, or perhaps a composite emphasis which combines several technology-related fields.

4. Technological applications for assistive, augmentative, and adaptive devices developed during the latter part of the 1980s will continue to expand during the 1990s. This area of leadership preparation may be part of the ergonomist-type training or constitute a separate specialization. Training programs might include minor areas of study in bioengineering, computer applications, or perhaps an emphasis that combines several augmentatively oriented, technology-related fields.
5. Now and in the future, the field of special education needs professionals with expertise in minority and 
multicultural special education. This need has existed for 
some time, but has not yet been adequately addressed by the 
field. The changing demographics of America and, in 
particular, its urban schools have created a demand for an 
increased pool of culturally/linguistically diverse special 
education leadership personnel who can prepare teachers, 
conduct research about effective practices, and develop new 
instructional methods and service delivery options. Also, for 
the western states in particular, sensitivity and knowledge 
about cultural pluralism and ethnic groups residing in rural 
sites (e.g., Native Americans) need to be emphasized in courses 
delivered to such remote areas. Preparation of leadership 
personnel in this field may include minor areas of emphasis 
including sociology, linguistics, or other topics of study that 
relate to issues involving cultural pluralism and learners with 
special needs. The complexity of these issues differs 
depending on geographic locale.

6. The specific need for teacher educators will continue to 
be a significant in special education. The special education 
teacher shortage coupled with the need to translate current 
research into practice makes for a continued demand for teacher 
educators throughout the foreseeable future. Leadership 
training in this area should concentrate on curriculum
development and the science of instruction. Thus, individuals selected for these programs should possess a solid base of field experience and continue to develop such competencies throughout their preparation programs. Because of the field-based nature of this emphasis, training should include experience and background in the various educational disciplines involved in providing education to children and youth (e.g., administration, school psychology, school counseling, general education).

7. **Availability of researchers** who can also prepare others to conduct research is another continuing need in special education. The nature of research has changed during recent years. Leaders being prepared with a research emphasis for the future must demonstrate sophisticated skills in quantitative research methods, applied behavior analysis and traditional group methodologies. Recently, the use of qualitative research methodology has increased in the special education literature. Therefore, a cadre of researchers with competence in this research technique need to be prepared as well.

8. The life-span nature of the field of special education is clear. Services to children and youth with disabilities have expanded significantly over the years, ranging from **early childhood special education**, to **transitional services**. This expansion has created a need for entirely new cadres of experts. Early childhood expertise is in particular demand.
Federal legislation now requires services be delivered at every local level, but few IHEs offer solid training in early childhood special education. People seeking leadership training in early childhood special education require programs of study that differ from those preparing candidates to be teacher educators or researchers in traditional categorical areas within special education. For example, these doctoral level students might have minor areas of study such as family studies, developmental psychology, nursing, physical therapy, or speech and language. Also, attention must be paid to the diverse service delivery systems relevant at the early childhood level. They often vary from the formal educational system (schools) to include many different agencies (social services).

9. *Life-span developmental expertise*, including facets of gerontology, might well change the field of special education during this decade. People with disabilities are living longer than before, and specialized services are needed throughout their lives. People seeking leadership training with this emphasis may need rather diverse areas of minor study including gerontology, rehabilitation, nursing, sociology, political science, public administration, or policy studies. Again, attention must be paid to diverse service delivery systems that are structured differently from the traditional educational system.
As illustrated above, many complex issues are involved in leadership personnel preparation. We recommend that intensive dialogues be initiated to better define the need for personnel with different areas of expertise, and to begin articulating what minimal competencies should be included in such training programs. Perhaps HECSE, in conjunction with other organizations, should sponsor and promote a conference on these issues.

Future federal support of leadership programs. It is important to recognize the role that the federal government plays in shaping doctoral preparation programs based at individual IHEs across the nation. Driven by the desire to obtain outside funding, doctoral programs are altered in order to be more competitive in grant competitions. During the 1980s, for example, doctoral training grants that led to preparation of specialists proved more successful in grant competitions, leaving applications requesting funds primarily dedicated for scholarships or the preparation of generalists less viable. Also, "new" training programs were favored over long-standing programs with a history of producing leaders in special education.

We take the position that viable applicants for federal funding of doctoral programs should not have to be either "project-specific" or "new" to be competitive. Rather, we suggest dedicating a substantial portion of leadership funding
to doctoral student support, while retaining funds to be allocated to new programs in new areas of specializations.

We are also concerned that the level of student support is inadequate. In part, student support is a recruiting tool. Therefore, the level of funding needs to be sufficient to allow potential leaders to return to school for advanced graduate study. As one solution to this problem, we suggest that student support funds once again be made exempt from taxes.

**Implications of CSPD for Leadership Training**

We were asked to address issues related to the Comprehensive System for Personnel Development (CSPD), an activity required by the Individuals with Disabilities Education Act and performed primarily by individual states. One function of CSPD is to collect and analyze data regarding the supply and demand of special education personnel. Clearly, this is an important activity, for information about the availability of trained personnel to provide appropriate educations to children and youth with disabilities is essential and useful to many constituents. For example, school districts and state departments of education need these data to determine whether an existing pool of special educators is sufficient to provide required services to this population of learners. Such information would also be useful to colleges and universities as they attempt to prepare an adequate number of prospective
teachers, related services personnel, and other service providers. Finally, data of this type will assist the federal government as it sets priorities for allocating personnel preparation funds.

The case for information about the supply and demand of leadership personnel is similar to the case just presented regarding direct service personnel. However, whether CSPD -- implemented on a state-by-state basis -- is the best vehicle for data collection and analysis for this level of personnel is highly questionable. Leadership training is a national, regional, and state activity. It is also labor-intensive, making it an expensive endeavor. As the field has become more diverse and specialized, specific IHEs focusing on leadership training have evolved with their own unique missions. For example, only a handful of IHEs prepare specialists in certain low-incidence areas such as visual impairments and hearing impairments. With a state-based data collection system, these IHEs would appear to be overproducing leadership personnel in these areas for their specific states, while overlooking the fact that they are producing such specialists for the nation. A similar situation applies to other areas of leadership personnel, including transition, early childhood, multicultural special education, and technology. It would be impossible, and not cost-effective, for each leadership preparation program to obtain the critical mass of professors in every area needed by
the nation to prepare such specialized leadership professionals. Because of the unique and complex nature of leadership preparation, CSPD as currently conceived is not the appropriate means for amassing information about the supply and demand of this group of special education professionals.

What then, is the best means of collecting information about supply and demand of leadership personnel? As leadership training is national by orientation, so, too, should its system of data collection. We do not want to suggest what specific agency should be responsible for this activity, however. Some existing agencies already collect national information about personnel needs, but they would have to modify and expand their systems to suit our field's needs. Possibly, the Office of Special Education and Rehabilitation Services should perform this activity or award it on a basis contracting to a group with the necessary expertise and resources. Regardless, the information is desperately needed, and the task should get underway soon.

Conclusion

Our aim was to create a context for leadership training so as a field we might be more aware of whence we came, how we evolved, and the direction we are moving. We maintained that the field is facing a critical shortage of both generalists and specialists, in part because of the shortage of direct service
providers and the need for leadership personnel who can prepare them to meet the needs of individuals with disabilities. This shortage, however, would be great even without these concomitant shortages; for the "greying" of special education facilities is a reality. In addition, the breadth of the field of special education is expanding into areas where only few leadership personnel are yet available. We do not know what the capacity of IHEs across the nation needs to be to adequately provide sufficient numbers of special educators. This leads us back to our argument for a national data collection system. Clearly, the field of special education is dynamic and viable; and leadership training is a critical component of its continued viability.
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