The Center to Inform
Personnel Preparation Policy and Practice
In Early Intervention & Preschool Education

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UNIVERSITY OF CONNECTICUT HEALTH CENTER

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Data Report

Study III Data Report: Analysis of Federally Funded Doctoral Programs Specific to Early Childhood Special Educatio

The Center to Inform Personnel Preparation Policy and Practice in Early Intervention and Early Childhood Special Education (referred to hereafter as the Center) was established in January, 2003 as a five-year project funded by the Office of Special Education Programs. The Center represents the collaborative efforts of the University of Connecticut, Western Kentucky University and the University of Toledo. The purpose of the Center is to collect, synthesize and analyze data on: 1) the certification and licensure requirements for personnel working with infants, toddlers, and preschoolers who have special needs and their families; 2) the quality of training programs that prepare these professionals; and 3) the supply and demand of professionals representing all disciplines who provide both Early Intervention (EI) and Early Childhood Special Education (ECSE) services. Data will be utilized to identify critical gaps in current knowledge of personnel preparation programs. The center will disseminate recommendations for policy and practice related to personnel preparation at regional and national forums.

Purpose of the Report

The Center to Inform Personnel Preparation Policy and Practice in Early Intervention and Preschool Education has conducted a study to obtain information about U.S. Department of Education, Office of Special Education Programs (OSEP) funded doctoral programs that include preparation specific to early childhood special education (ECSE). The research questions for this study were:

1)   What factors influence recruitment and retention of students into OSEP funded doctoral programs?

2)   What are the primary program supports for the OSEP funded doctoral programs?

3)   What are the programmatic characteristics of the OSEP funded doctoral programs?

4)   What are the primary characteristics of the OSEP funded doctoral programs' curricula?

METHODOLOGY

Participants

Principal Investigators of OSEP funded leadership projects were the targeted population for this study. The most current listing of OSEP funded leadership projects and contact information for the project's Principal Investigator (PI) was obtained from OSEP staff (N=69). The PIs for those 69 projects were contacted by phone to determine if their project included doctoral preparation specific to ECSE (birth through five years).   Their responses were as follows: 28 (41%) projects addressed ECSE and 41 (59%) projects did not address ECSE.   PIs whose projects addressed ECSE were e-mailed information about the study and asked to participate in both a survey and telephone interview. Twenty-five project PIs (89%) agreed to participate, and 3 project PIs (11%) did not respond to the request. The projects are directed by institutions of higher education that are geographically representative of the United States.

Instrumentation

Data for this study was collected using web searches, survey and telephone interviews. The survey solicited information about the operational and programmatic aspects of the doctoral program as well as information about students in the program. The written survey itself consisted of 39 closed-ended descriptive items. Graduate assistants perused websites for each project and/ or university in order to complete as much data for the survey as possible prior to electronically sending it to the respective PI.

The telephone interview consisted of 9 open-ended questions with possible responses and/or probes which requested qualitative information about recruitment and retention of students and program characteristics (e.g., program goals, curriculum). Two structured questions were also included. Both the survey and telephone interview were modeled after surveys developed to research special education doctoral programs that prepare individuals for K-12 leadership roles (Smith, Pion, Tyler, Sindelar, & Rosenberg, 2001).

Procedures

Surveys

Surveys that were partially completed by Graduate Assistants based on the web searches were electronically sent to the 25 project PIs who agreed to participate and to the 3 nonresponders (n=28). The PIs were asked to verify the accuracy of completed items and to provide any missing data for the survey.   The PIs were provided a due date three weeks from receipt of the survey; a second request was made for those surveys that had not been returned by the due date and another two weeks for response was allowed. Phone calls were made to the PIs who had not returned a completed survey after the first two e-mail requests. The final response rate was 82% (n=23).

Telephone Interviews

Upon receipt of the completed survey, each PI was e-mailed in order to schedule a date and time for the follow-up interview. The interviews, which ranged from 45 minutes to one hour, were audiotaped and transcribed. In addition, the interviewer took extensive notes on the interview

protocol during the interview.   Interviewees received a copy of the transcript and were asked to verify the accuracy of the information. The principal researcher and a research assistant conducted the interviews. The research assistant conducted three training interviews and took notes during those interviews as the principal researcher listened and took notes. The research assistant's and principal researcher's notes were compared with feedback provided to the research assistant by both the interviewees and the principal researcher. In addition, the research assistant listened and took notes while the principal researcher conducted two interviews. Inner-rate reliability was obtained at 96%.

Data Analysis

Descriptive statistics (i.e., means, frequencies, and percentages) were calculated for the quantitative data. Research staff analyzed the qualitative responses to identify salient themes and to categorize data related to topics that emerged from the responses. Each response was then coded to consensus based on the themes.

RESULTS – WEB SEARCHES AND SURVEY

Program Respondents

Twenty-three completed surveys were returned for a response rate of 82%. The three PIs who did not respond regarding participation did not return completed surveys.   Doctoral programs representing five single disciplines: audiology (n=3, 13%), early childhood special education (n=3, 13%), psychology (n=3, 13%), special education with one focusing on autism (n=7, 30%), and speech/language pathology (n=1, 5%) returned surveys. Six programs (26%) were interdisciplinary with two or more disciplines represented (i.e., adapted physical education and family sciences; two programs in school psychology and early childhood special education; physical therapy, occupational therapy, kinesiology, and adapted physical education; hearing and visual impairments, including orientation and mobility; and early childhood special education, audiology, and speech language pathology (see Table 1). Age ranges addressed by the programs varied and included lifespan (n=1, 4.5%), birth – 21 years (n=7, 30%), 3-21 years (n=5, 22%), birth – 13 years (n=1, 4.5%), birth – 10 years (n=1, 4.5%), birth – 8 years (n=1, 4.5%), and birth – 5 years (n=7, 30%) (see Table 2).

Table 1.   *Discipline of Doctoral Program (n=23)*

Discipline	n	%
Audiology	3	13
Early Childhood Special Education (Children Birth – 5 years with delays or disabilities)	3	13
Psychology (school and developmental)	3	13
Special education	7	30
Speech/language pathology	1	5
Interdisciplinary Programs	6	26

Table 2.   Program Age Ranges (n=23)

Age Ranges	n	%
0-5 years	7	30
0-8 years	1	4.5
0-10 years	1	4.5
0-13 years	1	4.5
0-21 years	7	30
3-21 years	5	22
Lifespan	1	4.5

Admission and Retention Information

A variety of criteria were employed to determine admission to the doctoral programs. The most frequently cited criteria were letters of recommendation (n=21, 91%), a minimum GPA (n=20, 87%), past experience related to the professional program (n=20, 87%), a writing sample (n=16, 70%), and an interview with the applicant (n=16, 70%). All programs considered multiple criteria in determining admission to the program (see Table 3).

Table 3.   *Admission Criteria (n=23)*

Criteria	n	%
Recommendation letters	21	91
Past experience related to professional program	20	87
GPA – 3.0-3.4	18	78
Minimum GRE score	18	78
Interview with applicant	16	70
Writing sample	16	70
Statement of applicant's professional goals	12	52
Preadmission portfolio	5	22
GPA – no minimum	2	9
GPA - Higher than 3.5	2	9
Vita/Resume	2	9
Master's in related area & one year post master's experience	1	4.5
Supervisor for K-12 special education, minimum 2 years	1	4.5
Completed 2nd year in core Ph.D. program & one research project	1	4.5
Transcript	1	4.5
Statement of interest	1	4.5

NOTE: Percentages total more than 100% since all programs had more than one admission criteria.

The target enrollment for the OSEP funded doctoral programs ranged from 3 students to 24 students with the most frequently cited number for target enrollment being 12 (n=6, 26%). The average targeted enrollment was 11 students. The majority of programs (n=12, 52%) had not yet met their target enrollment. The current enrollment of full-time students across the doctoral programs was 166. The average current enrollment for full-time students was 7 students. The current enrollment of part-time students across doctoral programs was 18 students. The average enrollment for part-time students was 4 students. Eighteen (78%) of the doctoral programs did not admit part-time students. Seventeen (74%) of the doctoral programs had applicants who had not met minimum criteria and, thus, had not been admitted to the program. The total number of applicants across programs who had not been admitted were 180 for an average of 8 applicants per program.

The majority of students in these doctoral programs were in the 25-30 year-old age range (n=13, 57%). Table 4 identifies the three average age ranges of enrolled students. Respondents were asked to identify only one average age range.

Table 4. *Average Age Ranges of Enrolled Students (n=23)*

Age Range	n	%
25-30 years	13	57
31-35 years	9	39
41-45 years	1	4

The majority of the students enrolled in these programs were full-time, Caucasian, female, and havd a permanent residence within a 60-mile radius of the university. Table 5 identifies the total number of full-time students across programs by demographic characteristic, the range of students enrolled across programs, and the percent of students across programs for each characteristic.

Table 5. *Demographic Characteristics of Full-Time Students (n=23)*

Demographic Characteristic	Total Number of Students Enrolled	Range of Students Enrolled	% of Total Number Students
Female	137	2 – 10	83
Male	29	0 – 5	17
Permanent residence within 60 mile radius of university	103	2 – 11	62
Disability	15	0—3	9
White	116	0—10	70
Black, non-Hispanic	19	0 – 3	11
Asian or Pacific Islander	13	0 – 5	8
Hispanic	14	0 - 4	8
Non U.S. citizen	4	0 – 2	2
American Indian or Alaskan Native	2	0 - 1	1.5
Other	2	0 - 1	1.5

Table 6 presents data for the demographic characteristics of part-time students. Data reported includes the total number of part-time students across programs by demographic characteristic, the range of part-time students enrolled across programs, and the percent of part-time students across programs for each characteristic.

Table 6.   *Demographic Characteristics of Part-Time Students (n=23)*

Demographic Characteristic	Total Number of Students Enrolled	Range of Students Enrolled	% of Students
Female	17	1 – 7	94
Male	1	0 - 1	6
Permanent Resident within 60 mile radius of University	12	0 – 8	67
Disability	4	0 – 1	22
White	11	0 - 6	61
Black, non-Hispanic	3	0 - 2	17
Asian or Pacific Islander	3	0 - 2	17
Hispanic	1	0 - 1	5
Non U.S. citizen	1	0 - 1	5
American Indian or Alaskan Native	0	0	0

Residency Requirements

Twenty-two (96%) of the doctoral programs require some type of residency requirement. Table 7 provides data for residency requirements.

Table 7.   *Residency Requirements (n=23)*

Residency Requirement	n	%
Three years, full-time	1	4.35
Two years, full-time	4	17.4
One year, full-time	6	26.1
Three semesters full-time, two consecutive	1	4.35
Two consecutive semesters, full-time	9	39.1
Two semesters and 15 hours dissertation	1	4.35
No requirement	1	4.35

Student Support

All but one doctoral program (n=22, 96%) provided assistantship support for students. The program that did not provide assistantship support provided financial support for tuition and other educational expenses. The range of assistantship support was from $2,500 to $29,000 (n=22). Thirteen of the programs (59%) offered $15,000 per year or more, 4 programs (18%) provided

$10,000 to $12,000, and the remaining 4 programs (18%) offered less than $10,000. The majority of the assistantships (n=15, 65%) were for the full calendar year (see Table 8).

Table 8.   *Availability of Assistantship Funds Per Year (n=23)*

Availability Per Year	n	%
9 months per year	6	39
12 months per year	15	65
9 or 12 months per year	2	9

The number of years for which students may access assistantship funds varied across programs. Table 9 identifies the span of time for which students were awarded assistantships. In addition, 21 (91%) of the programs provided tuition assistance. Eighteen (79%) of the programs provided funds to pay for 100% of tuition costs (see Table 10).

Table 9.   *Number of Years Students Are Awarded Assistantships (n=22)*

Length of Time	n	%
Duration of program	9	39
Four years	4	17
Three years	6	26
Two years	5	22
One year	1	4

Note: The number of years that assistantships are awarded varies in some programs (e.g., in one program two students receive an assistantship for three years and 3 students for two years).

Table 10.   *Percentage of Tuition Costs Paid by Doctoral Program (n=23)*

Tuition Support	n	%
100%	18	79
75%	1	4
60%	1	4
In-state tuition rate for all students	1	4
0%	2	9

Accreditation and Licensure

Some of the doctoral programs reported that they were accredited by relevant national, regional, and/or state accrediting bodies (e.g., National Council for the Accreditation of Teacher Education,

American Speech and Hearing Association, National Association of School Psychologists, Southern Association of Colleges and Schools, Maryland State Department of Education). Eight (35%) of the doctoral programs were aligned with national personnel standards (see Table 11). Respondents also reported as to whether the program was aligned with state certification or licensure standards for professional preparation (see Table 12). The majority of the programs (n=16, 70%) were aligned with state standards.

Table 11.   *Program aligned with National Standards (n=23)*

Program Aligned with Personnel Standards	n	%
No	14	61
Yes	8	35
Not sure	1	4

Table 12.   *Program aligned with State Standards (n=18)*

Program Aligned with State Standards	n	%
Yes	16	70
No	6	26
Not sure	1	4

Program Faculty

These doctoral programs had between 2 and 15 full-time faculty affiliated with the program. The most commonly reported number of full-time faculty was 4 (n=6, 27%) with 2 and 3 faculty (n=3 for each, 19%) being the next most frequently reported numbers of full-time faculty affiliated with the program. The average number of full-time faculty in these programs was 6, and the majority were tenured. Table 13 identifies the total number, range, mean**,** and percentage of faculty who were tenured, non-tenured, or not in a tenure track position. Eight of the doctoral programs also involved faculty on a part-time basis. The total number of faculty involved on a part-time basis was 28, the range of part-time faculty was 1–8, and the average number of part-time faculty for these 8 doctoral programs was 3.5. Another 4 programs involved full-time faculty from other programs within the university on a part-time basis with the doctoral program. The number of faculty involved in this manner was 28 with the average number being 7. Seven (30%) of the programs were conducting faculty searches at the time of survey completion. Seventeen of the programs (74%) reported that faculty affiliated with the doctoral program planned to retire in 1-10 years. The total number of faculty planning to retire in 1-5 years was 8 with a range of 1-10. The total number of faculty planning to retire in 6-10 years was 14 with a range of 1-5.

Table 13.   *Tenure Status of Full-Time Faculty (n=23)*

Tenure Status	Total Faculty	Range of Faculty	Mean	%
Tenured	112	1 – 12	4.9	78
Non-tenured	21	1 – 3	0.9	15
Neither tenure track nor tenured	11	1 - 3	.48	7

Program Characteristics and Program Completion

Respondents were asked how many total academic credits were required to complete the doctoral programs and how these credits were divided between coursework/seminars, internships or practica, and research. In addition, respondents were asked how many of these credits, either required or elective, had a pediatric or birth through five emphasis. Academic credits varied by institution and by the goals of the doctoral program. Table 14 reports the range and average of credits for the total program, coursework/seminars, internships or practica, and research.

Respondents were also asked if internships/practica and research requirements could be completed with a birth through five emphasis. The majority of programs (n=19, 83%) allowed students to focus on birth through five in both internships/practica. Internships/practica were not required in 4 programs (17%). Twenty-one (91%) of the programs allowed students to focus on birth through 5 in their research. Two of the programs (9%) did not have specific research requirements as part of the OSEP funded doctoral project. The length of time that it takes full-time students to complete the recommended program sequence varied across programs (see Table 15). The length of time for part-time students to complete the program was even more variable with most respondents hesitant to complete that question with an actual span of time. Only 5 programs had part-time students. For those who provided years, respondents provided a range of 5-8 years for program completion.

Table 14.   *Academic Credits Required by the Doctoral Program (n=23)*

Academic Credit	Range of Credits	Average Credits
Total required academic credits	30 - 130	81.6
Required credits associated with coursework/ seminars	15 - 90	53.2
Required credits associated with coursework/ seminars with a birth through 5 emphasis	0 - 45	10.5
Elective credits associated with coursework, seminars with a birth through 5 emphasis	0 - 21	7
Required credits associated with internships or practica	0 - 24	11
Required research/dissertation credits	0 - 30	15.3

Table 15.   *Full-Time Students – Length of Time for Program Completion (n=23)*

Length of Time in Years	n	%
2	2	9
3	2	9
3 - 4	4	17
3 - 5	1	4
4	9	39
4 - 5	3	13
5	2	9

Since OSEP funding for these doctoral programs was at different years in the funding cycle, only 18 programs had graduates to date. For those programs who had graduates (n=18), the total number of graduates was 59 with the range of graduates being 1-6. The majority of the program graduates accepted positions outside of the assigned region that the university serves (see Table 16). Program graduates have obtained a variety of leadership positions with the largest number going into higher education faculty positions. Table 17 reports the total number of graduates for the specific leadership roles and the percentage per role.

Table 16.   *Regions Where Graduates Obtain Positions Upon Program Completion (n=23)*

Region Employed	n	%
Employed outside of assigned region that the university serves	10	43
Employed within the assigned geographic region that the university serves	8	35
No graduates to date	5	22

Table 17.   *Types of Positions Obtained by Program Graduates (n=23)*

Position/Role	Total Number in Position/Role	%
Higher education faculty	24	41
Administration	13	22
Research (non-faculty position in academic or non-academic institutions)	10	17
Teaching/direct services	10	17
Emphasis not B-5	1	1.5
No information provided	1	1.5

RESULTS – TELEPHONE INTERVIEWS

Telephone interviews were conducted to expand on the information obtained from the completed surveys. Twenty (87%) of the 23 survey respondents participated in a telephone interview with each interview being transcribed. Analysis yielded eight themes with subthemes for each. The themes were: *general recruitment strategies, targeted recruitment strategies of underrepresented groups, retention and matriculation of students, cost benefits of OSEP funding, implications of no OSEP funding, faculty recruitment, primary roles of graduates, and curriculum.* Results for the two structured items (i.e., assistantship opportunities and factors affecting the choice of a higher education faculty position) are reported as percentages.

General recruitment strategies

Interviewees were asked to identify their most effective recruiting strategies. Personal contacts or word of mouth through phone calls, e-mails, conversations at meetings, etc. were a major strategy for recruitment. One interviewee said, "I think personal recruiting has helped, calling around." This strategy was also evident in the next subtheme, professional networking. Professional networking occurred across universities through various means (e.g., letters, e-mails, phone calls) with colleagues/directors of other similar university programs. Professional networking also occurred within the university as project staff worked with colleagues to recruit students from undergraduate and master's programs, first year doctoral students (when the specialization component began in the second or third year of doctoral study), and the departmental pool of potential doctoral candidates. In addition, doctoral students often met with potential students to discuss the program. Professional relationships within the community/ region also facilitated recruitment. This occurred through the support of local administrators/ superintendents and contacts with staff at field sites (e.g., hospitals, schools).

Another subtheme was the visibility or reputation of the program as program faculty disseminated research and information about the program through national media, presentations at conferences/national meetings, journal articles, and training/service activities. Placement of interns in national organizations/agencies also promoted this visibility. The following quote from an interviewee sums up the importance of professional networking and program reputation,

> I think that all of the advertising that we have done has not had
> the same impact as just people in the community…knowing about
> our program and the reputation of the program. I think that's how
> we got our students.

With the previous quote in mind, some respondents still identified the use of electronic media and paid advertisements in professional publications as effective recruitment strategies. The use of electronic media was most commonly reported as a program website, postings on professional websites or listservs, and program information in school district electronic newsletters.

Targeted recruitment strategies of underrepresented groups

Interviewees discussed effective strategies for recruiting underrepresented groups. For the purpose of this interview, "underrepresented" was defined broadly (e.g., race/ethnicity, disability, gender, etc.). Three subthemes were identified specific to targeted recruitment. The first

subtheme was the visibility or reputation of the program in supporting both faculty and students from underrepresented groups. Programs reported employing faculty of color and with disabilities. In addition, consultants to the projects represented racial/ethnic diversity, as well as disability. Doctoral students also represented this same type of diversity. One interviewee stated that having diverse groups of students in the program let potential students know "that they can do it and somebody has faith in them." This aspect of the program was disseminated through presentations at national conferences/meetings, including minority organizations, and through electronic media. The use of electronic media is exemplified in this quote,

> [T]he most effective strategies that we find are efforts that
> we've tried to highlight the efforts within our program in general
> to pay attention to diversity. We actually have a subset of our
> website that specifically addresses that topic. That tends to be an
> attraction for students of color.

Professional networking was also a subtheme for effective targeted recruitment strategies. Networking between universities included contacts with directors of other university programs, mailings to historically black colleges and universities (HBCUs), mailings within the state to universities with higher percentages of diverse students, developing relationships with faculty at minority institutions, and, for some programs, having alumni or former faculty teaching at HBCUs. Within the university, programs recruited students from underrepresented groups from undergraduate or master's programs or from the larger pool of doctoral applicants within the department(s) involved in the project. An interviewee referred to this as "growing our own."

> I guess the best one…is what we call 'growing our own'…We really
> go out of our way to search for those students who are really
> strong and then we get them involved in our research as early as
> possible and really encourage them as much as possible to go on.

Networking within the community occurred when faculty talked with potential students as they conducted professional development activities or provided service to community programs and as alumni representing diversity spoke with, and recommended, potential students.

A third subtheme was evident at some universities/programs in which special supports for recruitment were in place. These supports included grant funds being used to cover expenses of campus visits for potential students and funding a dedicated person to conduct diversity recruitment. Graduate schools sponsored recruitment trips and disseminated program materials. One institution was an HBCU.

Retention and matriculation of students

Interviewees were asked to discuss factors that were most critical in retaining students in the program and facilitating their program completion. Three subthemes were identified: financial support, faculty mentorship, and student cohorts. Stipends or assistantships of adequate amounts for 12 months allowed students to enroll on a full-time basis. Support with tuition and travel funds to attend national conferences/meetings was also mentioned as important. Three quotes succinctly state the importance of financial support in retaining students.

> [T]he focus is on student tuition and stipends, and I think that's
> the main thing that allows students to stay in the program.

> If we didn't have the doc training grant, we would have almost
> no students in our doc program. It's just so difficult to do that
> without funding to support them and the stipends allow people to
> focus on their research.

> The funds that we've been able to use to help them to submit
> posters and presentations at professional conferences…that's been
> amazing for the students.

All of the respondents discussed faculty mentorship as essential to retention and continued matriculation in the program. Mentorship was described as assisting with research skills and writing, including proposal development, grant writing and manuscript development; meeting with the faculty advisor on a regular basis individually and as groups; and maintaining frequent contact with field supervisors. Two sample quotes exemplify this subtheme:

> And what we try to do is to develop a constant ongoing connection
> between the faculty and the students, between the supervisors in
> the field (and the students).

> I think a strong advisor who maintains ongoing contact and
> relationships with students, kind of keeps pushing them along the
> way. That seems to be what makes the difference…the advisor is
> motivated to support the student and also takes the time that is
> needed to get through the process.

Student cohorts were identified as a third subtheme specific to retention and matriculation. Words such as cohortness, group identity, connectedness and collaboration appeared throughout the interviews. Responses suggested that being a member of a cohort provided built in support. Some groups of doctoral students met on a regular basis. The following quotes represent the benefits of cohortness.

> [G]raduate students…decided that they wanted to meet on an
> every other week basis just for an hour to touch base. So they are
> providing some internal support for themselves…

> …we also really try to have a cohort model with support built in…

Cost benefits of OSEP funding

Interviewees responded to a question regarding the cost benefits or added value to their doctoral program as a result of having OSEP funding. Five subthemes emerged: recruitment and retention of students, university relationships, curricular benefits, enhanced external relationships, and benefits to the field at large. Interviewees emphasized that the OSEP funding enabled them to recruit students to the program and to facilitate their retention in the program. Interviewees stated,

> We couldn't do it without the funding…we may be able to bring in
> one or two students without the funding.

> [We have a] larger applicant pool which means more diversity
> geographically and individually…

> [I]t helps us maintain a critical mass of students…

The funding allowed students to enroll full-time in the program and, thus, facilitate ongoing matriculation.

As a result of the financial support for students, they were able to engage in a variety of relationship building and networking opportunities that support program retention. Being a member of a stable cohort of students allowed for "built in" support as previously discussed. In addition, doctoral students had opportunities to be involved in national organizations, complete internships at the state and national level, and visit other higher education programs.

Funding also allowed students to focus more intensely on research, whether it was their own or research with faculty and other students. As one interviewee noted,

> Students work on faculty research grants, but they also work on
> their own research and it really frees students up not to have
> another job while they are in school.

In some programs, students had research assistantships as opposed to teaching or clinical supervision assistantships. Students were encouraged and supported to disseminate their research through manuscripts for publication and presentations at national conferences.

A second subtheme was the enhanced university relationships with the department and college as well as with faculty across disciplines in developing and implementing interdisciplinary programs. Some interviewees also noted that the OSEP funding increased the visibility and prestige of the program within the university and increased leverage with administrators for additional funding and supports (e.g., a new faculty line).

The primary curricular benefit from OSEP funding centered on development and maintenance of the project's specialization area. As stated, "It helps sustain that area of emphasis within the program." Specialized coursework, seminars, and practica/internship experiences have been developed through these projects.   In addition, some projects have utilized funds to support consults to assist in program design, training, and evaluation. The following quote summarizes the curricular benefit of the OSEP funding,

> [T]his has allowed us to institutionalize…the concept of this
> particular specialty (pediatric psychology). The OSEP funding has
> provided the ability to move this forward at a rate and a level that
> we could never have done without it.

As a fourth subtheme, external relationships seem to have been enhanced as a result of the funding. Funds supported advisory committees and specialized field placements. In addition, professional relationships with other university programs and external organizations and agencies increased.

Interviewees also discussed benefits to the professional field/discipline as a result of the OSEP funding. It "moved our integration of science in practice further along than it has been…" Another interviewee said,

> This really allows us to have a critical mass of people who are
> keenly interested in research and scholarship and creating new
> scientific knowledge…

Respondents reported that the support provided to retain full-time students who were engaged in research led to increased empirical studies, longitudinal research, grant writing, and dissemination of research.

Implications of No OSEP funding

Interviewees were asked about the implications for their doctoral program if they did not have the OSEP funding. Five subthemes emerged: decreased enrollment and matriculation, curricular implications, collaboration, knowledge base, and faculty recruitment. Interviewees agreed that their ability to recruit/attract students and support them at a full-time level would be greatly impacted. The result would be reduced enrollment and decreased program completion. Other supports, such as travel for national meetings, would also be greatly reduced or not available at all.

A second subtheme addressed the implications for the specialized curriculum. Some respondents indicated that they would maintain the specialized coursework, seminars, and practica, however, they would be offered less frequently and with less intensity and focus. Others said that they would not be able to maintain the specialty area. Since students would be more likely to be part-time and fewer in number, interviewees noted that it would be difficult to maintain a cohort model and the sense of "programness" if this area of funding were to be diminished. In addition, students' ability to participate in research would be reduced because of less funding for supports and their part-time status.

The third subtheme was a decrease in collaboration with external constituents and colleagues. Programs that fund an advisory committee and external consultants through the project would not be able to maintain those aspects of the program. Networking with community agencies, practica/internship sites, other internal institutes/research projects, and faculty at other universities would decrease. One interviewee noted that the program would be more insular with less input from stakeholders.

It was noted that a benefit of the OSEP funding was an increased knowledge base in the field/discipline. Respondents indicated that a loss of funding would negatively impact the knowledge base as a result of decreased research and professional publications.

The fifth theme specific to no funding was a negative impact on recruitment of potential applicants for faculty positions within these institutions. Interviewees reported that there would likely be fewer potential applicants for the specialization area and that the overall ability to recruit and maintain high quality faculty would be affected.

Faculty recruitment. Interviewees were asked to discuss factors that facilitated the recruitment of doctoral level faculty to both teach and conduct research in their program specific to ECSE. Four subthemes were identified: reputation of the institution/program, a sense of community, programmatic factors, and support to conduct research. National recognition of the university and program with productive faculty who are leaders in the field was cited as a factor. In addition, having the leadership project with the specialization area added to this national reputation. The following quote supports this subtheme,

> And I really think that a lot of it has to do with the national recognition that we have for this kind of focus in our program.

> A sense of community emerged as a second subtheme. As this respondent said,

> Collegiality is another one. Even in our ads…we say shows evidence of interdisciplinary collaboration. Sort of that 'plays nice in the sandbox' characteristic.

Collaboration occurred within and across disciplines, with faculty at other universities, and with other constituents, thus, creating opportunities for new faculty. One program noted that new faculty met once per month with lunch provided by the Dean.

The third subtheme relates to aspects of the program that may attract faculty candidates. These aspects included a critical mass of faculty, scholars and leaders in the field, with whom to work and learn from. Interviewees discussed applicants seeking programs in which they can focus on their specialization within the discipline and which seem to be a "good fit" or match for their professional interests in research, service, and teaching. A thriving doctoral program was also noted as a recruitment factor.

The fourth subtheme specific to faculty recruitment was support to conduct research. This quote summarizes comments made regarding this subtheme,

> They want support for their scholarly work. The people we're interviewing are all interested in careers where they're doing a lot of research, and they ask a lot of questions about what supports are available internally to help them be successful as scholars.

The types of supports that were identified as being desirable are: release time from teaching, "start up" funds to conduct and disseminate research, internal facilities (e.g., research labs, research centers/institutes), research assistants and support staff, mentorship from fellow faculty, and administrative support.

Primary roles of graduates

Nineteen of the 20 interviewees (95%) said that they were preparing graduates to accept faculty positions in higher education that involved both teaching and research. Interviewees consistently recognized the need to increase the potential number of qualified faculty in their specialization areas. Quotes such as the following were typical.

> Academics and researchers or both. What we want to do is grow the field of people to teach and model good research.
>
> [I]ncreasing faculty members in our field nationally.
>
> What we want is to make sure that these students are prepared to take an academic position and (we) give them more opportunities than what our other students have…

Some programs also focus on policy in order to prepare policy analysts and policy makers. One project has as its focus systems change.

> Through their coursework, students are prepared to directly impact public policy….they will probably seek…positions in state or federal departments of education.

A third subtheme in terms of roles of graduates was administration. Some programs included coursework and research that focused on administration in school settings, clinical settings, and/or state and federal agencies. The fourth related subtheme was provision of direct services to children and families. Due to the nature of some disciplines, graduates are prepared as clinicians. These quotes highlight this emphasis,

> Basically, you're trained to be a clinician, and maybe to a lesser extent a private practitioner…
>
> We believe that our doctoral students are equally prepared to go into academia and equally prepared to go into school practice as well as other clinical practice.

Some interviewees noted that it is more difficult to encourage graduates with established careers outside of higher education to seek higher education faculty positions as opposed to policy, administration, or direct services.. The following quote addresses this dilemma,

> We're not producing enough doctoral level people so that there are many opportunities for graduates now, even though we…want them to take a university job, sometimes these other jobs pay a lot more money.

Curriculum

Interviewees were asked to describe the curriculum of their OSEP funded doctoral program. Three subthemes were discussed by each respondent: relationship of the specialization area to the core doctoral requirements for all students in the major, the specialization component of this project, and individualization of the specialization program for students.

Students in these projects were required to complete all core doctoral requirements in the major. For all programs this included a research core with coursework addressing different methodologies (i.e., quantitative and qualitative), various research designs (e.g., group, single subject), and data analysis and interpretation. All students assisted with faculty research and some participated in research teams, research apprenticeships/practica, and mentoring undergraduate and master's students who were conducting research. Required research experiences for all programs included a qualifying/comprehensive exam (or an alternate equivalency product) and the dissertation. Some programs also required a master's thesis or research equivalency and, early in the program, a comprehensive review of the research literature based on a selected topic.

All doctoral students were required to complete a certain number of courses in the major, as well as doctoral seminars. The number of required courses ranged from 3 to 12 and the number of seminars ranged from 3 to 4. Some programs required courses outside of the department, a minor, a related area, and/or an area of inquiry. The more clinically oriented programs had core courses with clinical components.

Most of the doctoral programs required their majors to apply this content in pratica or internships that may occur in a variety of placements (e.g., schools, hospitals, state/federal agencies). Some programs provided credit for the practica and others did not. The required practica varied across programs and included the following: research, university teaching, leadership, public policy, advocacy, assessment, and administration. Some of the clinical programs required a culminating clinical practicum as the fourth or fifth year of the program.

The specialization requirements of the programs varied by university and discipline. In some cases, there was variation within the interdisciplinary programs by discipline. As noted above, all of the doctoral students completed the core requirements for their major. Two programs required students to complete 1 or 2 years in the major prior to beginning the specialization component. Required coursework in the specialization area ranged from 3 to 13 courses and could be completed as electives in the program or as part of a required related area or minor. Some programs required courses from other departments or a minor in a specific area (i.e., family science) as part of the specialization coursework. Specialized seminars were also required in most programs and ranged from 4 to 5. Some programs required additional or continuous practica and allowed for projects within practica with a pediatric emphasis. These practica also occurred in a variety of placements, but with a birth through 5 emphasis. Most of the programs also required their students to teach undergraduate or master's courses, either independently or as a co-teacher to prepare for a future faculty role. All of the programs utilized traditional face-to-face delivery of courses with some web enhancement. Courses tended to be scheduled during the day or evenings. Three programs offered Saturday or weekend classes, while two had summer institutes. Three programs had some online courses, while one offered some coursework via interactive television.

All of the programs allowed doctoral students to individualize various components of the program to address their future career interests and to maintain an intensive focus in the specialization area. Emphasis on the specialization component via individualization was essential for doctoral programs that had a large number of required courses and practica for all students in the major. Students in some programs created individual development plans based on program competencies/standards in collaboration with their advisor or doctoral committee. These plans took into account the students' prior education, professional experiences, and career goals. Individualization occurred in practica/internships, coursework, research, scholarly endeavors, community service, and university teaching. Practica/internships were individualized based on varied placements, optional internships based on student goals, and individualized projects that addressed the specialization area. Coursework was individualized for different students in the program through the electives that they chose, selected seminars based on interests, independent studies, electives related to the specialty component, and projects within courses that focus on the specialization area. Similarly, students' research typically focused on the specialization area and was conducted with their faculty advisor or research teams in that area of interest. The required research apprenticeships/practica also focused on research in the specialization component. The resulting scholarly endeavors (e.g., presenting at conferences, peer review of journal articles, developing manuscripts, and writing grants) were then based on the research in the specialization area. Some programs also individualized the qualifying exam and allowed students to develop alternative products based on their research (e.g., write a grant, develop an undergraduate course, write a potentially publishable manuscript). As previously discussed, most programs require university teaching with undergraduate or master's students in the discipline. Students in some programs also had the opportunity to focus on the specialization area through work with parents and parent groups and conducting professional development for community agencies/ groups.

Two structured items were included in the interview protocol. The interviewees were asked to identify the types of activities in which the doctoral students could be involved through their assistantships. The majority of programs (n=21, 91%) involved students in research related activities (i.e., research projects and grant writing) while independent teaching (n=15, 65%) or co-teaching (n=13, 57%) was also very common within these programs (see Table 18).

Interviewees were also asked to identify factors that influenced their graduates' selection of a higher education faculty position. The two most commonly cited factors were working conditions (n=10, 43%) and a match with the graduates' career interests and goals (n=9, 39%). See Table 19 for other factors that were identified.

Table 18.   *Doctoral Students' Assistantship Opportunities (n=23)*

Assistant Opportunities	n	%
Assist with research projects, manuscript development	21	91
Assist with grant writing	17	74
Co-teach undergraduate or master's courses	15	65
Independently teach undergraduate or master's courses	13	57
Supervise undergraduate or master's students in the field	13	57
Present at and attend national meetings	3	13
Complete additional clinical placements/internships	2	15
Other		
1 Assistantship is entire experience, their job is to complete the specialized courses and practica	1	4

NOTE: Percentages total more than 100% as respondents could identify as many responses as were relevant.

Table 19.   *Factors Affecting Graduate Students' Choice of a Higher Education Faculty Position (n=23)*

Factors	n	%
Working conditions/supports (e.g., hours, work environment, facilities, equipment, support for research , travel funds)	10	43
Match with interests (i.e., research, teaching, service)	9	39
Geographic location of the university/college (e.g., cultural and recreational opportunities)	8	35
Salary	7	35
Colleagues with whom will be working most closely	6	30
Benefits (e.g., on-site childcare, retirement, health insurance)	5	25
Students who will be teaching and mentoring	4	20
Desire to not relocate to another city or state	2	10
Career employment or other needs of family (e.g., proximity to parent, ability of spouse to obtain position)	2	10
Opportunities for promotion and career advancement	1	5
Job security	0	0

NOTE: Percentages total more than 100% as respondents could identify as many factors as were relevant.

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