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ABSTRACT

This report presents data from the Integrated Postsecondary Education Data System and the Division of Personnel Preparation's database of supported teacher trainees for the years 1990-91 and 1991-92, on degrees awarded in special education and related health professions. Data are reported by field of study, by level of degree, and by gender. The report is intended to offer a snapshot of the supply side of personnel potentially entering the field of special education. Analysis suggests self-selection, by gender, of students graduating in the various subfields of special education as well as a generally negative situation in the supply of personnel, especially for leadership personnel in low-incidence areas. Trend data are presented to illustrate the downward spiral in total graduates in special education from 1969-70 to fewer than half that number in 1992-93. Analysis suggests the importance of increasing personnel preparation monies in the reauthorization of the Individuals with Disabilities Education Act and suggests a "payback" provision in which trainees supported with federal funds make a service commitment. Six tables present the data in detail. (DB)

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**SUPPLY OF PERSONNEL IN SPECIAL EDUCATION,
UNITED STATES: 1969-70 TO 1992-93**

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UNITED STATES: 1969-70 TO 1992-93**

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ABSTRACT

On the threshold of reauthorization of the Individuals with Disabilities Education Act (IDEA), Congress has at its disposal considerable research compiled over the last 20 years on providing a Free, Appropriate Public Education to children with disabilities, which will be invaluable to Congress in its deliberations. Central among the useful data are figures describing the supply side of personnel available to meet the educational and related services needs of these children and their families.

Contained in this report are data on degrees in special education and related health professions which have been conferred by institutions of higher education, by level of degree, and by sex (from the Integrated Postsecondary Education Data System). Also described are data from the Division of Personnel Preparation's database of teacher trainees supported through its grant awards under Part D of IDEA (Pub. L. 101-476).

INTRODUCTION

With the passage of Federal legislation to ensure a Free, Appropriate Public Education (FAPE) in the Least Restrictive Environment (LRE), great strides have been made in meeting the educational and related needs of children with disabilities and their families. On the threshold of reauthorization of the Individuals with Disabilities Education Act (IDEA), a current national picture is needed of children receiving services; supply of, and demand for, related services personnel and teachers to serve the needs of individuals from birth to 21, as well as demographic information, professional background, plans to remain in teaching, years to retirement, and opinions about school climate; principals' background and experience, plans to remain, and years to retirement; capacity of universities to meet the training needs for new teachers, related services personnel, and leadership personnel; complete data for low-incidence groups; and sources and amounts of financial support, from Federal, State, and local funding, as well as data on how such funds are spent.

Several reports are now available to shed light on these issues, some of which have been prepared by the author from data collected by the National Center for Education Statistics (NCES); specifically, a major report on teacher characteristics (from the Schools and Staffing Survey, 1987-88) (SASS), one on principal characteristics (from SASS, 1991, data), and one on student-teacher ratios by race/ethnicity (from the Teacher Demand and Shortage Survey, 1988). A planned summary report will combine data from these reports with new information from more recent surveys, as well as never before produced profile information on special education doctorates.

This report is focused on recent graduates in the field of special education (from NCES's Integrated Postsecondary Education Data System) (IPEDS) during school years 1990-91 and 1991-92. In other words, these data present a snapshot of the supply side of personnel available in the so-called resource pool of eligibles who may enter teaching in the field of special education. Some comparisons with other fields are made to sharpen one's perspective in attributing meaning to these data. Some gender comparisons are presented to highlight the magnitude of self-selection, by gender, of students graduating in the various subfields of special education.

Data in low-incidence areas illuminate the negative situation of shrinkage in the supply pipeline, which is even more critical for leadership personnel in low-incidence areas.

Finally, some trend data are presented on total awards in special education, by level of degree, to illustrate the downward spiral in total graduates in special education over the last 15 years, as well as in every

level of award. Thus, even graduates in high-incidence training areas, in which some teacher-trainees have been receiving Part D of IDEA stipend support, have dropped off dramatically.

ANALYSIS AND RESULTS

DPP Data

To set the stage for interpreting the earned degree data, a matrix of the most recent counts available (from various sources) for children served, teachers employed and needed, trainees currently supported through grants awarded by the Division of Personnel Preparation (DPP), and IPEDS completions was developed by the author. These data are displayed in the attached table 1, which is entitled, "Profile of Special Education in the United States." (Sources and dates are listed in the table.) With the 3-pronged thrust that the Office of Special Education Programs (OSEP) is making for reauthorization of IDEA (expanded Federal role for low-incidence; quality for high-incidence; and increased leadership support), categories in this table were created to split the student and teacher data into the low-incidence disability categories versus other categories of disability; and the degree data separated into levels, by these same categories, where possible. (IPEDS reporting nomenclature at the summary level does not include autism, deaf-blindness, and traumatic brain injury, for example; therefore, these graduates are most likely contained in the category called, "Special education, other," which is shown at the bottom of this table.)

The reader is cautioned that the DPP trainee data were produced by a programmer using a keyword search on the grantee database for any indication of involvement in categories which had been circled by DPP Project Officers on DPP's code sheets for Fiscal Year 1994. Because one project code sheet might represent 30 trainees, for example, with a multidisciplinary approach, any of a number of disability training categories could have been circled on that code sheet, depending on what the project proposal described as the content of the project. For each circled training category, a keyword was entered into the database: Those 30 trainees on our hypothetical code sheet could be counted each time one of those keywords was searched on. The broadest definition was thus used by the programmer to obtain counts of trainees in low-incidence disability training areas. If a project code sheet listed autism, hearing impairments, vision impairments, and multiple/severe, for example, those trainees would be captured by a keyword search of the database for each one of those disability areas. The detail in that column is, thus, by nature very soft data. To offset this unavoidable duplication of counts using a keyword search method, the author has shown an unduplicated total count of DPP trainees in the total ("All disabilities") line of the Profile table, which is based on adding up the number trained for each grant competition under Part D, and summing across competitions to arrive at the total. Thus, the total

represents an unduplicated count of the number trained in all of DPP's preservice projects for FY '94. (However, the detail in that column will not add to the total. As explained above, the keyword search gives an inflated number that represents all projects listing an emphasis on that disability area, whatever it is. If one project lists 6 disability areas, its trainees will be counted 6 times, once for each disability area in the keyword search.)

Further, many categories of personnel preparation funded with Part D funds are not described by disability categories; rather, they consist of descriptors for occupational category, or activity; e.g., psychologist, research, physical therapist, administration, etc. Trainees who could not be forced into one of the disability categories of the matrix are not represented in the row detail. Thus, besides the problem of multiple counts for the trainees who are counted more than once by virtue of being listed in association with more than one disability category, many trainees are not counted at all by disability category. However, they are included in the unduplicated total count of DPP FY'94 preservice trainees of 16,901.

IPEDS Data

Tables 2 and 3, respectively, depict the number of awards by level (and percentage of men versus women) for special education subfields, and for health professions and related sciences for 1991-92 graduates. These data represent universe totals for all public and private colleges and universities in the IPEDS completions survey. Women predominate in every subfield of special education and these health subfields at the bachelor's level except for dentistry, orthotics/prosthetics, and the category labeled "Miscellaneous health professions." At the master's level, a few more subfields, in addition to those exceptions, are male dominated: dental services, "Health and medical diagnostic and treatment services, total," "Health and medical preparation programs, total," and pharmacy. At the doctoral level, some shifts occur: Although across all fields of earned bachelor's and master's degrees women predominate in the totals, for doctorates men dominate (almost 2/3 of all doctorates were awarded to men). By doctoral subfield, half the awards in education of the mentally handicapped went to men; the other half, to women. Other fields in which men predominated at the doctoral level (in addition to those at the bachelor's and master's levels) were community health liaison, medical laboratory technologies, medical basic sciences, optometry, physical therapy, and "Health professions related sciences, other." Doctorates in Recreational therapy were split half and half between men and women.

In tables 4 and 5, the same basic information is displayed for school year 1990-91. With a few notable exceptions, the patterns in the data are similar to those cited above for tables 2 and 3. For some reason the category "Rehabilitative services, other" had more doctorates awarded to

men than to women in 1990-91; the reverse was true in 1991-92. More doctorates were awarded to men in medicine in 1990-91; for 1991-92, doctorates were not reported in medicine in this series (health professions and related sciences). Although women predominated dramatically in physical therapy doctorates awarded in 1990-91, as noted above (table 3), more physical therapy doctorates went to men the following year (table 5).

Some of the most astounding findings from two of these tables (2 and 4) involve the "0" cells at the doctoral level, adding emphasis to the dire need for increased Federal support of leadership training at the doctoral level, especially in low-incidence subfields of special education. Specifically, no doctorates were awarded in 1991-92 in the following fields (IPEDS nomenclature is used here to avoid confusion but it is not "person-first" language): deaf and hearing impaired, multiple handicapped, physically handicapped, blind and visually handicapped, and speech impaired. (Note: IPEDS reports Gifted and Talented as a special education subfield; so, although it is shown here in tables 2 and 4 because IPEDS collects it this way, the author subtracted out these data on gifted and talented to arrive at the numbers shown under IPEDS Completions in the Profile table (table 1) of this report. Obviously, gifted and talented is not a disability category as defined in IDEA.) During 1990-91 the picture was just as bleak: Although 1 doctorate was awarded in education of the multiple handicapped, none were awarded in education of the mentally handicapped. Several subfields graduated only 1 or 2 doctorates each of these years; even in learning disabilities, only 7 doctorates were awarded in 1991-92.

By far the most dramatic gender difference in these two years of data affects the deaf and hearing impaired student population: only 2 percent of the bachelor's degrees were awarded to men in this subfield.

SUMMARY

At the summary level, of more than 1 million bachelor's degrees awarded in 1991-92, over 100,000 were awarded in the education field; of those, close to 8,000 were awarded in special education. For more than 350,000 master's degrees, about 92,000 went to the education field, with over 9,000 in special education. Among doctorates, for all fields, over 40,000; for education, close to 7,000; of those, only 192 in special education. The pattern, overall, is similar for the previous year.

The final table (table 6) displays trend data for earned degrees in special education from 1969-70 through 1992-93. The number of bachelor's degrees awarded increased initially during the early to mid-70's, then dropped from a high of 18,545 in 1975-76 to a low of 6,573 in 1987-88. Although small increases are shown for the most recent data years, the overall trend has been a sharp downward spiral to fewer than half of the

number of bachelor's degrees granted at their peak. A similar trend occurred for master's degrees but not as sharp a drop--increasing initially then dropping from 14,144 in 1977-78 to a low of 8,581 in 1987-88. For doctorates, as well, a downward spiral occurred from a high of 308 in 1977-78 to a low of 183 in 1990-91. Then, as with the other levels of awards, small increases have occurred in recent years. In general, compared to men, women have been capturing an increasingly larger number of doctorates in special education, a trend that began during school year 1978-79. (See figure 1 below.)

IMPLICATIONS

One should remember that these drops occurred even while Part D of IDEA personnel preparation monies have been supporting teacher trainees. If this support is reduced or removed, even for high-incidence subfields, the ensuing escalation of drops in numbers of graduates in special education could create disastrous shortages of teachers for children with disabilities. This author believes that these data do not lie--rather, they argue strongly for increased Federal support for low-incidence and high-incidence subfields. Instead of robbing Peter to pay Paul, these data insist that a push needs to be made for increased levels of Federal funds for both groups of teachers, in addition to expanding leadership training monies to produce more special education teacher trainers among college faculty.

Along with overall increases needed in Federal funding for personnel training in special education, individual student stipends should be increased to keep pace with inflation and the current reality that older students, most with families to support, come back into the training pipeline for a master's or a doctorate. They cannot stay in the program until graduation unless they have adequate stipends. Many able potential trainees with families would not risk giving up secure jobs without substantial stipends. The problem is worse for postdoctoral recruitment/retention, especially for minorities who tend to have families earlier, as well as to have larger families.

Finally, the author urges the Department to include a "payback" provision in its reauthorization request. The pipeline of personnel trained with Part D monies has been leaking. Without a service commitment required of trainees supported with Federal funds, no assurance of retaining these graduates in field has been obtained in prior years. Attrition is known to be higher for new teachers, during the first three years of teaching, especially for special educators. If these holes in the pipeline are plugged with a payback requirement, then perhaps OSEP can gain some ground in its struggle to provide the field with sufficient personnel to meet the needs of all children with disabilities. If subsequent OSEP-supported trainees do not stay in field after graduation, at least some of the funds could be recouped

from them to support other personnel who will remain to serve our Nation's children with special needs.

(The opinions expressed herein are those of the author and may not necessarily be endorsed by DPP, OSEP, or the Department.)

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Table 1. -- Profile of special education in the United States: Various years

Disability Category	School year 1992-93 Students 6-21			School year 1991-92		FY '94 DPP Trainees*	School year 1991-92 IPEDS Completions		
	Total	Part B	SOP	Employed	Needed		Bachelor's	Master's	Doctorates
All disabilities	4,639,674	4,452,117	181,557	3,089,904	27,282	16,901	7,866	9,236	192
Low-incidence									
Multiple disabilities	103,215	86,179	17,036	7,767	700	2,094	85	114	0
Hearing impairments	60,896	43,707	17,189	7,025	727	459	236	175	0
Visual impairments	23,811	18,129	5,682	3,025	306	247	25	17	0
Autism	15,527	12,238	3,289	1,126	326	142	--	--	--
Deaf-blindness	1,425	773	652	150	41	105	--	--	--
Traumatic brain injury	3,903	2,906	997	68	35	49	--	--	--
Other disabilities									
Orthopedic impairments	52,921	46,498	6,423	1,612	313	347	29	47	0
Other health impairments	68,754	63,962	2,072	2,159	260	60	--	--	--
Specific learning disabilities	2,369,385	2,333,571	35,814	97,805	8,003	4,968	468	661	7
Speech or language impairments	1,000,154	990,718	9,436	43,610	3,907	948	653	288	0
Mental retardation	533,715	484,871	48,844	43,142	3,079	461	551	221	2
Serious emotional disturbance	402,668	368,545	34,123	29,486	4,724	5,874	240	207	1
Cross-categorical	--	--	--	69,919	4,833	--	5,332	7,194	173
Special education, other	--	--	--	--	--	--	247	312	9

*Total is unduplicated count of individual trainees in preservice grants; however, detail in rows for this column represents multiple counts for individuals, obtained through keyword searches of training categories listed in database (keyed in from categories of training which were circled on project code sheets. Many areas of training are not described by a disability category, but represent occupational categories or activities (e.g. psychologists, research, physical therapy, etc.). Individuals trained in those areas cannot be represented in a matrix of disability categories, but the numbers trained are included in the total of 16,901. 'SOP' = State-operated programs; 'Part B' refers to Part B of IDEA, Pub. L. 101-476.

SOURCE: OSERS 16th Annual Report, for student and teacher data; DPP trainee data are from DPP's project grantee database for FY '94; IPEDS Completions are from the Digest of Education Statistics, 1994, NCEI, U.S. Department of Education.

Table 2 -- Percentage of bachelor's, master's, and doctor's degrees conferred in special education and related fields by institutions of higher education, by sex of student and subfield of study, 1991-92

Field of Study	Bachelor's degrees		Master's degrees		Doctor's degrees	
	Total number	Percentage of men	Total number	Percentage of men	Total number	Percentage of men
All fields	1,136,553	46	352,836	46	40,659	63
Education, total	106,006	21	92,666	23	6,864	41
Education administration & supervision, total	20	20	10,329	39	2,131	47
Administration of special education	12	17	9	11	15	13
Educational evaluation, research, & statistics	19	16	161	34	97	41
School psychology	39	28	458	19	85	31
Special education, total	7,897	6	9,420	13	192	27
Special education, general	5,332	6	7,194	13	173	28
Education of the deaf and hearing impaired	236	2	175	14	0	0
Education of the gifted and talented	1	0	184	10	0	0
Education of the emotionally handicapped	24	13	207	25	1	100
Education of the mentally handicapped	551	5	221	14	2	50
Education of the multiple handicapped	65	6	114	17	0	0
Education of the physically handicapped	26	21	47	15	0	0
Education of blind & visually handicapped	25	12	17	12	0	0
Education of specific learning disabled	468	4	661	9	7	0
Education of the speech impaired	653	3	288	6	0	0
Special education, other	247	13	312	13	9	11
Counselor ed /counseling, guidance services	44	27	11,429	22	372	43

NOTE: " " = Not applicable; "+" = Not reported in this series. Detail in total columns may not add to subtotals because inapplicable categories have been omitted.
SOURCE: IPEDS (public and private colleges and universities), NCES, DEFI, U.S. Department of Education

Table 3 - Percentage of bachelor's, masters' and doctor's degrees conferred in health professions and related fields by institutions of higher education, by sex of student and subfield of study, 1991-92

Field of Study	Bachelor's degrees		Master's degrees		Doctor's degrees	
	Total number	Percentage of men	Total number	Percentage of men	Total number	Percentage of men
All fields	1,130,553	46	352,838	48	40,659	63
Health professions & related sciences, total	61,720	17	23,085	20	1,661	42
Chiropractic	0	-	0	-	0	-
Communication disorders sciences & services	4,137	4	3,541	4	61	27
Community health liaison	327	24	190	26	23	65
Dentistry	65	54	325	66	13	85
Dental services	732	5	72	67	0	-
Health services administration, total	3,222	22	3,103	33	57	44
Health & medical assistants, total	867	48	136	29	71	-
High & med. diagnostic & treatment svcs., total	1,156	37	23	61	0	-
Medical laboratory technologies, total	2,375	27	464	45	86	52
Health & med. prep. programs, total	5,306	42	133	56	73	56
Medicine	-	-	+	-	+	-
Medical basic sciences	324	31	193	42	232	55
Mental health services, total	483	15	411	22	14	43
Nursing	31,020	6	62	7	403	5
Optometry	140	45	12	33	6	87
Pharmacy	1,260	36	116	56	201	59
Epidemiology	0	-	210	45	66	38
Rehabilitation/therapeutic services, total	6,316	16	3,087	23	26	43
Art therapy	49	2	172	14	0	-
Dance therapy	5	0	48	9	0	-
Music therapy	153	10	33	24	0	-
Occupational therapy	2,149	6	466	10	2	0
Orthotics/prosthetics	29	62	0	-	0	-
Physical therapy	3,111	25	1,533	27	7	57
Recreational therapy	124	11	3	0	2	50
Vocational rehabilitation counseling	93	23	515	27	7	43
Rehabilitative services, other	625	20	266	27	10	60
Miscellaneous health professions	341	60	66	60	25	66
Health professions & related sciences, other	3,574	26	74	35	231	53

NOTE: * = Not applicable; + = Not reported in this series. Detail in total columns may not add to subtotals because inapplicable categories have been omitted (e.g., veterinary medicine).
SOURCE: IPEDS (public and private colleges and universities), NCES, IERI, U.S. Department of Education

Table 4 -- Percentage of bachelor's, master's, and doctor's degrees conferred in special education and related fields by institutions of higher education, by sex of student and subfield of study: 1990-91

Field of Study	Bachelor's degrees		Master's degrees		Doctor's degrees	
	Total number	Percentage of men	Total number	Percentage of men	Total number	Percentage of men
All fields	1,094,538	46	337,188	48	39,294	63
Education, total	110,807	21	87,343	23	6,187	42
Education administration & supervision, total	41	17	9,904	40	2,055	48
Administration of special education	12	17	83	6	11	45
Educational evaluation, research, & statistics	18	6	155	30	148	45
School psychology	204	14	1,616	22	510	36
Special education, total	6,976	6	9,059	12	163	26
Special education, general	4,722	6	6,894	13	163	25
Education of the deaf and hearing impaired	220	5	165	9	0	0
Education of the gifted and talented	1	0	140	9	0	0
Education of the emotionally handicapped	197	13	208	18	1	100
Education of the mentally handicapped	543	4	194	8	0	0
Education of the multiple handicapped	70	9	66	13	1	100
Education of the physically handicapped	19	5	36	3	0	0
Education of blind & visually handicapped	20	25	10	30	0	0
Education of specific learning disabled	343	6	673	5	11	27
Education of the speech impaired	605	5	211	7	0	0
Special education, other	236	6	412	12	7	43
Counselor ed./counseling, guidance services	49	12	11,094	22	361	40

NOTE: "—" = Not applicable. Detail in total columns may not add to subtotals because inapplicable categories have been omitted. SOURCE: IPEDS (Public and private colleges and universities); NCES, OERI; U.S. Department of Education.

Table 5-- Percentage of bachelor's, master's and doctor's degrees conferred in health professions and related fields by institutions of higher education, by sex of student and subfield of study, 1980-91

Field of Study	Bachelor's degrees			Master's degrees			Doctor's degrees		
	Total number	Percentage of		Total number	Percentage of		Total number	Percentage of	
		men	women		men	women		men	women
All fields	1,064,536	48	52	337,186	48	54	96,294	63	37
Health professions & related sciences, total	59,070	18	82	21,200	21	79	1,613	43	57
Chiropractic	0				100	0	0		
Communication disorders sciences & services	3,235	4	96	3,171	5	26	92	26	74
Community health liaison	504	17	83	636	25	75	83	52	48
Dentistry	61	73	27	356	71	29	21	76	24
Dental services	991	1	99	24	4	96	0		
Health services administration, total	3,078	23	77	3,042	33	67	43	47	53
Health & medical assistants, total	643	45	55	119	36	64	0		
HHA & med assist, & treatment spec, total	1,012	37	63	44	70	30	0		
Medical laboratory technologies, total	2,471	28	72	1,373	35	65	133	51	49
Health & med prep programs, total	567	82	18	0			0		
Medicine	113	61	39	37	65	35	6	67	33
Medical basic sciences	165	36	64	91	46	54	95	67	33
Mental health services, total	278	18	82	180	31	69	0		
Nursing	29,381	7	93	7,129	9	91	406	9	91
Optometry	199	52	48	19	68	32	5	80	20
Osteopathic medicine	4	75	25	4	75	25	0		
Pharmacy	6,068	39	61	280	56	44	205	60	40
Podiatry	0			261	39	61	50	38	62
Rehabilitation/therapeutic services, total	6,436	19	81	2,476	21	79	16	33	67
Art therapy	30	0	100	132	7	93	0		
Dance therapy	7	0	100	36	10	90	0		
Music therapy	163	9	91	21	10	90	0		
Occupational therapy	2,089	6	94	401	7	93	0		
Otitis/prosthetics	17	78	22	0			0		
Physical therapy	3,425	26	74	1,067	28	72	6	17	83
Recreational therapy	165	26	74	3	33	67	0		
Vocational rehabilitation counseling	211	18	82	632	24	76	9	31	69
Rehabilitative services, other	341	12	88	194	21	79	3	67	33
Miscellaneous health professions	40	45	55	37	36	64	0		
Health professions & related sciences, other	3,827	26	74	1,780	37	63	102	55	45

NOTE: "-" = Not applicable. Detail in total columns may not add to subtotals because incomplete categories have been omitted (e.g. veterinary medicine).

SOURCE: IPEDS (public and private colleges and universities), NCES, CERU, U.S. Department of Education.

Table 6--Number of earned degrees conferred in special education by institutions of higher education, by level of degree and sex of student: 1969-70 to 1992-93

School year	Level of degree											
	Bachelor's degrees					Master's degrees					Doctor's degrees	
	Total number	Number of		Total number	Number of		Total number	Number of		Total number	Number of	
		Men	Women		Men	Women		Men	Women		Men	Women
1969-70	7,761	996	6,765	5,351	1,408	3,943	241	194	47			
1970-71	8,360	1,106	7,254	5,962	1,531	4,431	198	137	61			
1971-72	11,069	1,439	9,630	6,916	1,789	5,127	234	149	85			
1972-73	15,133	1,881	13,252	8,177	1,985	6,192	227	154	73			
1973-74	18,080	2,201	15,879	9,939	2,303	7,636	240	165	75			
1974-75	18,292	2,130	16,162	11,396	2,360	9,036	234	128	106			
1976-76	18,545	2,104	16,441	13,509	2,537	10,972	294	162	132			
1976-77	17,260	1,794	15,466	13,941	2,473	11,468	297	168	129			
1977-78	16,443	1,616	14,827	14,144	2,348	11,796	308	157	151			
1978-79	15,442	1,348	14,094	13,585	2,135	11,450	292	127	165			
1979-80	14,480	1,280	13,200	13,245	1,949	11,296	307	132	175			
1980-81	13,930	1,093	12,837	13,500	1,847	11,653	275	105	170			
1981-82	12,804	934	11,870	13,153	1,742	11,411	306	107	199			
1982-83	11,418	816	10,602	11,301	1,399	9,902	271	99	172			
1983-84	10,301	656	9,645	10,547	1,342	9,205	239	81	158			
1984-85	9,134	574	8,560	9,933	1,211	8,722	235	81	154			
1985-86	8,206	540	7,666	9,311	1,079	8,232	245	86	159			
1986-87	6,996	492	6,504	8,826	1,025	7,801	230	61	169			
1987-88	6,573	478	6,095	8,581	1,026	7,555	217	55	162			
1988-89	6,667	440	6,227	8,791	1,031	7,760	251	45	206			
1989-90	6,615	462	6,153	9,025	1,102	7,923	203	58	145			
1990-91	6,976	526	6,450	9,059	1,166	7,893	183	48	135			
1991-92	7,867	597	7,270	9,420	1,214	8,206	192	51	141			
1992-93	8,657	674	7,983	9,765	1,324	8,441	249	67	182			

NOTE: School year 1981-82 and prior years include "Administration of special education" in these numbers, as well as "Education of the culturally disadvantaged", "Remedial education" and "Education of the gifted and talented" are included in all years of these collections
 SOURCE: Various years from the Digest of Education Statistics, IPEDS Completions Survey, and HEGIS, its predecessor, NCES, OERI, U.S. Department of Education.



Figure 1. Doctorates in special education
by sex, by year

