

PEPNet Needs Assessment: Summary of Findings

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Abstract

With the funding of the four regional postsecondary education technical assistance centers for deaf and hard-of-hearing persons, the U.S. Department of Education directed that a national needs assessment be conducted to determine the specific kinds of assistance to be provided by each of the centers. The needs assessment focused on the population of postsecondary institutions listed on the 1995-96 Integrated Postsecondary Education Data System (IPEDS) maintained by the National Center for Education Statistics. As a result, questionnaires were sent to 10,391 postsecondary institutions in the U.S. and its territories, including two- and four-year colleges as well as training programs offering less than two-year degrees. The questionnaire was designed to gain information about the postsecondary program, the number of deaf and hard-of-hearing persons being served, the types of services currently being provide, and needs for technical assistance related to provision of services to deaf and hard-of-hearing students. The study realized an overall response rate of 45 percent.



Introduction

Societal efforts (i.e. Section 504 of the Rehabilitation Act, Individuals with Disabilities Education Act, Americans with Disabilities Act) to provide access to higher education have markedly influenced the numbers of deaf and hard-of-hearing persons seeking admission to postsecondary education. A study conducted by the National Center for Education Statistics (NCES, 1994) has estimated that there are approximately 20,000 deaf and hard-of-hearing persons enrolled in the nation's two- and four-year colleges and universities. This number is in addition to approximately 2,500 students enrolled at Gallaudet University and the National Technical Institute for the Deaf at Rochester Institute of Technology.

In the midst of these rapidly expanding postsecondary resources to meet the increasing numbers and a broader range of deaf and hard-of-hearing students, it is vital that the quality of the education to which they have access be maintained and improved. The challenge for all postsecondary education is to find ways to accommodate these individuals so as to improve their chances of success.

With the funding of the four regional postsecondary education technical assistance centers for deaf and hard-of-hearing persons, the U.S. Department of Education directed that a national needs assessment be conducted to determine the specific kinds of assistance to be provided by each of the centers. This report describes the methodology used to conduct the national needs assessment and summarizes the results from the assessment.

Assessment Methodology

The needs assessment focused on the population of postsecondary institutions listed on the 1995-96 Integrated Postsecondary Education Data System (IPEDS) maintained by the National Center for Education Statistics. As a result, questionnaires were sent to 10,391 postsecondary institutions in the U.S. and its territories, including two- and four-year colleges as well as training programs offering less than two-year degrees. *Table 1* shows that almost half of the institutions were less than two year, proprietary institutions with the other half being divided between two- and four-year programs.

A questionnaire was developed to gain information about the postsecondary program, its current services and future needs. The following topics were addressed in the questionnaire:

- level of services provided;
- responsible person;
- number of deaf and hard-of-hearing persons served;
- priorities of technical assistance needs; and
- preferred strategy for responding to technical assistance needs.

Table 1.

Number and percent of postsecondary institutions surveyed and the number and percent of institutions returning questionnaires by institutional characteristics.

<i>Institutional Characteristics</i>	<i>Number Surveyed</i>	<i>Percent Surveyed</i>	<i>Number Returned</i>	<i>Percent of Returned</i>	<i>Return Rate</i>
All Institutions	10,391	100%	4,694	100%	45%
Level					
4 year	2,856	27%	1,370	29%	48%
2 year	2,666	26%	1,314	28%	49%
<2 year	4,869	47%	2,010	43%	41%
Type					
Public	2,241	21%	1,198	26%	53%
Non profit	2,987	29%	1,377	29%	46%
Proprietary	5,163	50%	2,119	45%	41%

Each of the centers had the responsibility for distributing the questionnaires to institutions in their region. The Northeast center had the additional responsibility for coordinating the data input, conducting the analysis, and reporting the results for all the centers.

The questionnaires were mailed to the schools in July 1997, with telephone follow-up occurring during August, September, and October. Of the 10,391 institutions in the survey group 7,779 were contacted by mail, fax, or telephone; and 2,618 were unreachable because of changed addresses, were no longer doing business, or chose not to answer our telephone inquiries. The total effort resulted in 4,694 returned questionnaires of which 3,959 were useable. These efforts resulted in an overall return rate of 45%, distributed among institutional types as indicated in *Table 1*. Returns from two- and four-year schools were approximately ten percentage points higher than schools offering less than two-year degrees, the majority of which are proprietary, for profit institutions.

Services Provided by the Schools

One purpose of the survey was to determine the number of schools providing services to deaf and hard-of-hearing students and the number of students being served at these institutions. The first item on the questionnaire asked institutions to indicate whether they had "an office/department for disability support services," a "program for deaf and

hard-of-hearing students,” “no identified office for disability support services.” Respondents were asked to check all that apply. The responses were classified into three categories: those that checked only an office for disability support services were classified in that category; those that checked having an office for disability support services and/or indicated having a program for deaf and hard-of-hearing students were classified as having a program for deaf and hard-of-hearing students; those that indicated only have an office for disability support services were classified in that category. The results presented in *Table 2* indicate that approximately 68 percent of the surveyed institutions provided no services for deaf and hard-of-hearing students. In addition, 94 percent of institutions providing less than two-year degrees, with proprietary control, offered no services, while almost 80 percent of the publicly controlled institutions provide some level of services for deaf and hard-of-hearing students. About two-thirds (65%) of public institutions have programs that focus specifically on the needs of deaf and hard-of-hearing students.

Table 2.
Percent of institutions providing services for deaf persons by institutional characteristics.

<i>Institutional Characteristics</i>	<i>Useable¹ Returns</i>	<i>No Disability Office</i>	<i>Program for Deaf</i>	<i>Office for Disabled</i>
All Institutions	3,959	68%	27%	5%
Level				
4 year	1,178	48%	46%	7%
2 year	1,093	51%	41%	9%
<2 year	1,688	94%	4%	2%
Control				
Public	1,026	22%	65%	13%
Non profit	1,162	70%	27%	3%
Proprietary	1,771	94%	5%	2%

Number of Deaf and Hard-of-hearing Students Served

As one might expect, those institutions that provide services also enroll the largest numbers of deaf and hard-of-hearing students. Institutions with programs to support their deaf and hard-of-hearing students, were serving 7,897 students, while schools with no disability support office reported enrolling only 1,177 students. It is also interesting to note that higher numbers of students are enrolled at public two- and four-year schools than in private programs. *Table 3* provides a breakdown of the numbers of students served by type of program. Only about two percent of all deaf and hard-of-hearing students reported by responding institutions were attending proprietary programs offering less than two-year degrees.

Table 3.
Number of deaf and hard-or-hearing students served by institutional characteristics.

<i>Institutional Characteristics</i>	<i>Number of Institutions</i>	<i>Number Deaf/Hard-of-Hearing</i>	<i>No Disability Support Office # Deaf/Hard-of-Hearing</i>	<i>Program for Deaf # Deaf/Hard-of-Hearing</i>	<i>Office for Disabled # Deaf/Hard-of-Hearing</i>
All Institutions	1,045	9,074	1,177	4,914	2,983
Level					
4 year	479	3,497	322	2,495	680
2 year	495	5,210	674	2,375	2,161
<2 year	71	367	181	44	142
Control					

¹ While 4,694 institutions returned questionnaires, only 3,959 questionnaires permitted classification by whether they offered disability support services, or responded to the needs assessment questionnaires.

Public	735	7,694	867	4,124	2,703
Non profit	241	1,090	148	742	200
Proprietary	69	290	162	748	80

Technical Support Needs of Responding Institutions

The primary objective of this study was to determine the type of technical assistance postsecondary institutions needed from the four regional centers in order to increase and improve services to deaf and hard-of-hearing students.

Of the responding institutions, 1,348² provided information on 32 questions in which they were asked to determine the level of priority for receiving technical assistance from the regional centers. Responses were on a five point Likert scale with 1 indicating low priority and 5 indicating high priority. *Table 4* summarizes the results from these 32 questions ranked by mean response. Questions relating to acquiring funding for support services, gaining information about technology, and strategies to facilitate accessibility were given the highest priority. Those relating to development of skills for remedial instruction, notetaking, and computer-aided reporting received the lowest priority ratings.

Table 4.
Mean response ratings for priorities for technical assistance.

QUESTION	MEAN RATING	FACTOR
Funding for support services	4.07	Administration/Planning
Strategies to improve support	3.93	Administration/Planning
Technology to facilitate accessibility	3.93	Resource Management
Training staff to work with DHH students	3.76	Administration/Planning
Technology to facilitate learning	3.73	Resource Management
Strategies for retention	3.64	Student Maintenance
Managing interpreters	3.63	Resource Management
Needs of multidisabled DHH students	3.58	Administration/Planning
Financial aid considerations	3.55	Administration/Planning
Partnership with VR counselors	3.52	Student Maintenance
Classroom and campus access	3.49	Student Maintenance
Work experience and placement	3.49	Student Maintenance
Legal issues of faculty	3.43	Legal Issues
Legal issues of administrators	3.42	Legal Issues
Legal issues of students	3.41	Legal Issues
Self advocacy training for DHH students	3.35	Student Maintenance
Managing computer-aided reporters	3.34	Resource Management
Managing notetakers	3.32	Resource Management
Managing tutors	3.25	Resource Management
Developmental English instruction	3.22	Basic Skills
Assessment of basic skills	3.14	Basic Skills
Peer mentoring for DHH students	3.07	Student Maintenance
Developmental mathematics instruction	3.06	Basic Skills
Development for counselors	3.04	Professional Development
Development for interpreters	3.03	Professional Development
Managing counselors	3.02	Resource Management
Development for tutors	3.01	Professional Development
Strategies for recruitment	2.98	Student Maintenance
Development for remedial instructors	2.97	Professional Development
Development for notetakers	2.94	Professional Development
Developmental science instruction	2.84	Basic Skills
Development for computer-aided reporter	2.79	Professional Development

In order to reduce the complexity of the 32 questions, the results were factor analyzed. This statistical analysis reduced the 32 questions to six factors. We have named the six factors Administration/Planning, Resource Management, Legal Issues, Student Maintenance, Basic Skills, and Professional Development. *Table 4* indicates which questions make up each of these factors. *Table 5* provides mean scores for each of the six factors broken out by institutional characteristics. From the table it can be seen that questions about Administration/Planning, and Resource Management received the highest priority ratings (3.79 and 3.52 respectively), while Legal Issues (3.42) and Student Maintenance (3.34) had similar scores. Basic Skill development (3.06) and Professional Development (2.98) are areas of least interest to the respondents.

Table 5.
Mean ratings for six needs factors by institutional characteristics.

<i>Institutional Characteristics</i>	<i>N</i>	<i>Administration/ Planning</i>	<i>Resource Management</i>	<i>Legal Issues</i>	<i>Student Maintenance</i>	<i>Basic Skills</i>	<i>Professional Development</i>
All Institutions	1348	3.79	3.52	3.42	3.34	3.06	2.98
Level							
4 year	590	3.82	3.53	3.47	3.30	2.79	2.88
2 year	592	3.84	3.64	3.49	3.42	3.42	3.18
<2 year	166	3.49	3.02	2.95	3.17	2.74	2.58
Control							
Public	830	3.86	3.67	3.49	3.46	3.33	3.19
Non Profit	353	3.74	3.36	3.41	3.14	2.60	2.64
Proprietary	165	3.50	3.11	3.04	3.16	2.70	2.57

Methods of Delivering Technical Assistance

Of the responding institutions, 1,3223 provided information on 16 questions in which they were asked to rate the value of ways in which technical assistance could be delivered by the regional centers. Responses were on a five point Likert scale with 1 indicating low value and 5 indicating high value. Results from these 16 questions are ranked by mean response in *Table 6*. It can be observed that sharing information through interaction with colleagues and conferences is preferred over consultations and peer reviews.

Table 6.
Mean response ratings for priorities for technical assistance.

QUESTION	MEAN RATING	FACTOR
Collaborating with colleagues	3.61	Conferences/Information Access
Best practice models/modules	3.61	Conferences/Information Access
Resource materials center	3.60	Conferences/Information Access
World Wide Web access	3.59	Conferences/Information Access
Regional seminars	3.58	Conferences/Information Access
National support service standards	3.56	Conferences/Information Access
State or region-wide networks	3.54	Conferences/Information Access
In-service staff training/development	3.54	Consultation
Newsletters	3.44	Conferences/Information Access
Workshops for service providers	3.44	Consultation
National conferences	3.18	Conferences/information Access
Satellite broadcasts	3.09	Conferences/Information Access
Conference proceedings	3.00	Conferences/Information Access
Consultation via on-site visits	2.98	Consultation

² This is the number responding to “needs” portion of the questionnaire. Persons with no experience and no deaf or hard-of-hearing students receiving services were not asked to respond to this part of the questionnaire.

³ This is the number responding to “technical assistance delivery” portion of the questionnaire. Persons with no experience and no deaf or hard-of-hearing students receiving services were not asked to respond to this part of the questionnaire.

As with the previous section about support needs, the responses to the 16 questions were factor analyzed and two factors extracted from the analysis. The 16 questions fell into two categories: Conferences/Information Access and Consultation. *Table 6* indicates which questions make up each of these factors. *Table 7* provides mean scores for each of the two factors broken out by institutional characteristic. From *Table 7* it can be seen that Conferences and Access to Information (3.50) by way of various media forms are the most desirable ways to provide technical assistance. Consultation was a less desirable form of delivering technical assistance especially in terms of peer reviews and site visits.

Table 7.
Mean ratings for two delivery factors by institutional characteristics.

<i>Institutional Characteristics</i>	<i>N</i>	<i>Conference Information Access</i>	<i>Consultation</i>
All Institutions	1,322	3.50	3.49
Level			
4 year	576	3.55	3.55
2 year	586	3.58	3.58
<2 year	160	2.99	2.99
Control			
Public	821	3.66	3.66
Non Profit	347	3.34	3.34
Proprietary	154	2.96	2.96

Discussion of Results

Representation of the returns. As in any voluntary questionnaire, caution must be exercised in generalizing the results from those who returned the forms. It could be that the reason institutions did not respond is that they did not serve deaf and hard-of-hearing students. Of the 4,694 responding institutions, only 1,045 reported serving any deaf or hard-of-hearing students during the 1996-97 school year. This is only 22 percent of the responding schools. We have no way of knowing whether schools serving significant numbers of deaf and hard-of-hearing students tended to respond at a higher rate than institutions who served no deaf and hard-of-hearing students. As a result caution must be exercised. In the current study there are a number of elements which lead us to feel that the returns can be considered representative of the population of postsecondary institutions in the United States.

The first indicator that the results can be generalized is the fact that the percent of returned questionnaires, by type of institution, is almost exactly the same as the distribution of the universe of postsecondary institutions. This result indicates that there is little or no bias in terms of types of institutions choosing to respond to the questionnaire.

A second indicator concerns the reported number of deaf and hard-of-hearing students to whom the responding institutions are providing services. We report (*Table 3*) that the responding institutions (45%) indicated serving 9,074 deaf and hard-of-hearing students. If we weight this number for those who did not respond, then it might be estimated that there are 20,164 deaf or hard-of-hearing students in postsecondary institutions in the U.S., almost all attending two- and four-year colleges or universities. This figure is very close to the estimated number of 20,040 reported by the National Center for Educational Statistics (NCES) in 1994. In addition, the percent reported in this study as being served in two-year institutions is 57 percent while the figure of 61 percent is reported in the NCES study. These results lead us to conclude that the returns obtained in this study are reflective of the population of postsecondary institutions in the United States.

It must be pointed out, however, that the NCES study indicated that 27 percent of the institutions surveyed enrolled deaf and hard-of-hearing students in all four years from 1989-90 through 1992-93. While we still hold with our initial caution about the tendency for schools serving deaf and hard-of-hearing students to respond, the similarity in the percentage of schools serving deaf and hard-of-hearing students lends further credence to the fact our findings are representative.

Level of services being provided. About half of the two- and four-year institutions indicated providing services to deaf and hard-of-hearing students either through a special program for supporting these students or through an office for disabled students. This percentage is somewhat higher than the 37 percent reported in the NCES study. This finding might indicate an increase, during the last decade, in the number of offices of support services being established at postsecondary institutions. In addition, it is interesting that only about six percent of the less-than-two-year institutions provided any services. This finding might indicate that these institutions are not generally accessible to people who are deaf and hard-of-hearing. The finding that 78 percent of public and only 30 percent of private institutions provide such services is in keeping with the findings of the NCES study. Again, these results indicate that “for profit” postsecondary institutions provide very little by way of services for deaf and hard-of-hearing persons, and are, for the most part, probably not accessible to this population of disabled persons.

Priorities for technical assistance. The major objective of the needs assessment was to determine the types of needs which postsecondary institutions have for technical assistance. Overall, it appears there is more of a need for assistance in administering and managing services for deaf and hard-of hearing students than for assistance with how to develop basic skills in students or in professional development for faculty and staff. While there is considerable agreement among most types of institutions, the less-than-two year programs see more of a need for issues of recruiting and maintaining students in their environments than do two- and four-year institutions. Also, proprietary institutions seem to indicate a much lower level of need for the various types of technical assistance than do the public or not-for-profit sectors. We can only speculate about why this difference exists. It probably should be the responsibility of PEPNet and each of the four regional centers to develop national and regional plans to respond to these identified needs.

Delivering the technical assistance. It appears that the respondents felt that all types of technical assistance delivery were needed, but felt more strongly about availability of conferences and meetings, and access to information about service delivery. It is clear, however that they did not feel that peer program reviews and on site visits were as desirable a way of providing technical assistance.

Conclusions

A number of conclusions can be drawn from the data presented here.

- The data about number of programs providing services and numbers of deaf and hard-of-hearing students in postsecondary institutions in the U.S. is highly consistent with the study reported in 1994 by the National Center for Educational Statistics. The estimate of approximately 20,000 deaf and hard of hear students in two- and four-year colleges is confirmed, with the added number of about 600 in institutions offering less than two-year degrees.
- While the majority of public institutions offer support services for deaf and hard-of-hearing students, the majority of non-profits and most proprietary programs offered no services for deaf and hard of hearing students. This finding is especially noteworthy since 79 percent of all institutions surveyed fall into the non-profit or proprietary categories, but 85 percent of all deaf and hard-of-hearing students are enrolled in public institutions. Access by

persons who are deaf and hard-of-hearing to postsecondary education is not consistent across the spectrum of offerings available in the United States.

- Priority should be given to providing training and information dissemination about administering and managing services and resources for deaf and hard-of-hearing students. While they should not be neglected, less emphasis needs to be given to providing professional development and information about basic skill development than the other areas.
- Training and technical assistance can be provided in a number of ways, but direct interaction and sharing through conferences, meetings, and information access is preferred over consultation and site visits to institutions.

References

National Center for Education Statistics. (March, 1994). Deaf and hard of hearing students in postsecondary education. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement (NCES 94-394).



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