The Effects Of Postsecondary Settings On Employment Outcomes and Technological Supports Transfer

Issue

Research has shown that there is a positive correlation between disability, level of education, and adult employment (Stodden, 2001; Benz et al., 1998; Reis, Neu, & McGuire, 1997; Blackorby & Wagner, 1986; Gilson, 1996). This relationship is supported by the finding that some type of postsecondary education significantly increases the likelihood of people with disabilities obtaining successful employment (Stodden, 2001; Gilson, 1996). A more profound illustration of this point can be found in employment trends. Though people with disabilities are traditionally more unemployed or underemployed relative to their counterparts without disabilities, there is however a greater correlation between education and employment rate for people with disabilities obtaining successful employment than for the general population at large (Stodden, 1998). In other words, participation in the work force increases with level of education attained and this increase is even more dramatic for individuals with disabilities, as illustrated by the following 1996 U.S. Bureau of Census statistics. For the general population, the labor force participation rates were 75.4% for persons who did not complete high school, 84.6% for those who completed high school, 87.8% for those who acquired some postsecondary education, and 89.7% among those who completed at least four years of a postsecondary program. The respective participation rates for people with disabilities are a lot lower, but the relationship between these percentages and level of education attained is much higher. For example, only 15.6% of persons who did not finish high school were working, but for those who did finish secondary school, 30.2% were labor force participants. This number jumps to 45.1% for those who have acquired some level of postsecondary education and reaches 50.3% for persons with disabilities who have completed at least four years of postsecondary program (Stodden, 2001; Yelin & Katz, 1994a, 1994b; Reskin & Roos, 1990). What is important to note here is that postsecondary education is strongly associated with material and professional success for persons with disabilities (Stodden, 2001; Gajar, 1998). Therefore, in light of its impact on quality of life especially for people with disabilities, the postsecondary
setting becomes an important domain of research inquiry.

Within this setting, then, there is a profound need to explore technological and educational supports as they affect student performance and to identify obstacles facing students with disabilities as they make transitions across various settings, such as moving from one school to another or graduating from the school setting to the labor market (Stodden, 2001; Gajar, 1998). In this vein, it becomes necessary to explore differences across postsecondary institutions as to what supports are offered for students with disabilities and how useful and transferable these supports – in particular technological supports – are to the workplace. Preliminary research has shown that there are differences between 4-year and 2-year postsecondary institutions in terms of accommodations and supports they offer, with 2-year schools offering more supports overall, including greater Assistive Technology (AT) supports across campus. Yet, regardless of institution type, few schools seem to facilitate transfer of supports to the workplace. In fact, most schools seem to offer little outside of traditional career counseling and job placement services (Harding, 2001). Technology as a support also does not seem to carry over into the work setting (Rumrill, 1999). Given this gap in supports between college and the workplace, it is unclear as to which supports (like AT for instance) would prove to be the most useful for students with disabilities once they enter the work environment.

Considering the profound impact of higher education on quality of life for people with disabilities, the proposed study is an attempt to contribute to the limited body of existing literature on supports for students with disabilities across certain kinds of postsecondary settings and how well these supports carry over into the workforce. The specific aim of this study is to compare the transition to employment for students with disabilities in relation to their prior postsecondary settings (4-year versus 2-year schools) as measured by selected variables such as work earnings, type of job, AT supports used in school, AT supports used at work, and student perceptions of what AT supports would be useful in employment.

Research Questions
1. Are there differences in work earnings between graduates of 4-year postsecondary programs and graduates of 2-year programs? If so, what are the differences?
2. Do graduates of both 4-year and 2-year programs enter into jobs related to their declared academic field of study?
3. What kinds of Assistive Technology programs (AT) did graduates of 4-year and 2-year postsecondary settings use in college, and what AT are they using in the workplace?
4. Are there differences in transference of technological supports to employment between graduates of 4-year and 2-year postsecondary programs? If so, what are the differences?
5. Which technological supports offered at the postsecondary institutions did graduates find to be most helpful and which do they think will have the most utility in the workplace?

Method
The proposed study is cross-sectional in design. An in-depth exploratory survey will be administered to students with disabilities who recently graduated from 4-year and 2-year postsecondary settings in
years 1999-2001. The objective of this survey is to compare students from both settings in regards to specified work outcomes. These outcomes are dependent variables and include work earnings, job relationship to field of study, AT use in the workplace, and perceived AT usefulness in the workplace. The independent variables are the type of postsecondary institution (4-year versus 2-year), number and kind of AT supports the institution offered, and which of these AT supports the student actually used.

**Sampling**

For the purposes of recruiting graduates with disabilities from different institutions, a census will be taken in selecting students from lists of 1999-2001 graduates at each college or university included in the sampling pool. Due to confidentiality issues, it is imperative to have the cooperation of the disability provider at each collaboration site. Therefore colleges will be recruited to participate from three sources: the RRTC collaborators, the pool of 21 Office of Postsecondary Education (OPE) demonstration projects (CFDA 84.333), and AHEAD members.

In cooperation with RRTC staff, the OSU project staff will recruit a minimum of ten postsecondary institutions to participate, representing both 2-year programs and 4-year programs. The total number of students that we would like to recruit from each site is a minimum of 20 graduates, resulting in a total sample of at least 200 participating students. Each ODS provider or equivalent from each participating institution will take a census of their 1999-2001 graduates. Each selected person from this respective list of graduates will receive a letter soliciting their involvement in a 20-30 minute telephone interview, accompanied by a response card that asks their name, telephone number, and best time to be contacted for the interview. If the prospective participant expresses interest in participating, he or she will send back to OSU project staff the postcard indicating their name, their contact information, and a time of preferred contact. OSU project staff will then contact these graduates, and if consent is given, will set up a time to conduct the interview. Interviews will be conducted by trained research staffs who have experience in interviewing techniques. All interviewing and data collection will take place at Ohio State University with one notable exception: the University of Hawaii at Manoa will collect their own data and perform their own interviews due to the drastic time difference between Hawaii and the continental U.S.A. All respondents will receive $25 for their participation and will also receive a chance to win an all expense-paid trip to Washington D.C.

**Survey Design**

The survey itself will be a structured questionnaire adapted from the following sources:

- Post-Graduation Technology And Accommodations Transfer Needs Survey (Roessler & Kirk);
- Work Experience Survey (Roessler);
- DO-IT Participant Survey (Burgstahler);
- National Longitudinal Transition Study (SRI International);
- DSS Survey of Technology Services and Support to College Students with Disabilities.

The instrument will be pilot-tested with a sample of recent college graduates from a school not participating in the study. Validity of the instrument will be obtained through factor analysis and reliability coefficients will be obtained via the University of Hawaii’s data analysis team.
Procedures and Timelines

Recruit 2- and 4-year Postsecondary Sites (May – October 2001)

Participating 2- and 4-year postsecondary institutions will be recruited from three sources: RRTC Collaborators, OPE project directors, and AHEAD members. To recruit AHEAD members, Carol DeSouza has agreed to solicit participating sites through an article published in the ALERT newsletter and through a conference flier disseminated at the July, 2001 AHEAD conference in Portland, OR. Each participating institution will agree to mail a packet to a census of their 1999-2001 graduates. The packet will include a letter explaining the study and a self-addressed response card indicating the participant’s willingness to participate in the study and contact information. If a graduate is interested in participating, he or she will return the postage paid response card to project staff at Ohio State University. Project staff will then contact the graduate and set up an appropriate time to administer the phone survey. Respondents will receive $25 for their participation and will also receive a chance to win an all expense-paid trip to Washington D.C.

Develop Survey (May – September 2001)

Survey items that answer our research questions will be selected from the survey instruments. The survey will be designed to be a 20-30 minute telephone interview. The draft survey instrument will be reviewed by staff at all the RRTC collaboration sites to assure the format and questions are clearly worded, complete and easily administered through a telephone interview.

Pilot Survey (September – October 2001)

A panel of national and local experts will assess the content and validity of the survey instrument. National experts that will be asked include Drs. Bob Stodden, Teresa Whelley, Tom Harding, Liz Getzel, Carol DeSouza, Phil Rumrill, and Sheryl Burgstahler. Local experts will include both consumers who work in disability support services, such as Jennifer Aaron and Evette Simmons-Reed and disability providers such as Wayne Cocchi, Director Disability Services at Columbus State Community College. Each panel member will be asked for recommendations related to item clarity and appropriateness.

The instrument will then be field-tested with a minimum of 3 recent graduates from Ohio State University and one other collaboration site. These participants will be asked to assess the content and face validity of the instrument. They will be asked to report any problems with the format and wording and list other concerns that might compromise the validity of the instrument.

Revise Survey (November – December 2001)

Revisions will be made at the discretion of the researchers and select members of the expert panel of reviewers.

Train Phone Interviewers (December 2001)

Alexa Murray, Project Associate, will train select OSU staff in appropriate interviewing techniques.

Recruit sample participants (July – December 2001)

Respondents will be solicited using many of Dillman’s (1978) suggestions for ensuring a good response rate. A cover letter will be sent to the participant, on the institution’s letterhead. It will be personalized and signed by a person familiar to the participant. In addition to the cover
letters, each participating institution will enclose a stamped self-addressed return postcard for graduates to send back if they are willing to participate in the study; this card will indicate the participant’s name, phone number and best time to contact. Each respondent will receive $25 for completing a 20-30 minute phone survey as well as a chance to win an all expense-paid trip to Washington D.C. Similarly, each participating institution that has recruited graduates for our study will receive a chance to win an all-expense paid trip to Washington D.C. to attend the AHEAD conference in July 2002.

Conduct Telephone Interviews (January – April 2001)

The phone interview will be conducted by trained staff members at Ohio State University (with the notable exception of the University of Hawaii at Manoa.) It is our intention to have one of the primary phone interviewers be Jennifer Aaron here at Ohio State University. Ms Aaron is a college graduate with a learning disability who has tried and uses a number of different AT software. It is expected that she will be able to establish rapport quickly with the graduates to be interviewed. Project Associate Alexa Murray will be training interviewers and will also be conducting interviews along with at least 4 or 5 others on the interviewing team.

Complete Data Analyses (February 2001 – June 2002)

Descriptive statistics (frequencies, sample comparison of means, etc.) will be applied to the data using SPSS, and differences between 4-year and 2-year graduates will be examined for significance using t-tests. All data analyses will take place at the University of Hawaii. Completed surveys will be sent incrementally to the data analysis team at Hawaii, and both the quantitative and qualitative responses will be analyzed.

Report Results

Findings will be reported through four methods:
1. A Final Report describing the methods, findings and implications
2. Two short information briefs, the first designed for consumers and disability service providers, and the second for researchers
3. Research article published in AHEAD or similar peer review journal
4. Presentations at conferences such as AHEAD’s July 2002 summit.

Final Report (September 2002)

The final report will describe the problem, the procedures to develop, pilot and refine the survey instrument, the response rates by institution, and the results. The final chapter of the report will provide the implications and recommendations for further research and practice for researchers and disability service providers, respectively.

Develop Implications Briefs (July – December 2002)

Two Implication Briefs will be developed: the first brief will be designed for students and disability service providers and the second brief will be for researchers. The first brief for students/disability service providers will include a short summary of the problem statement and research questions, followed by a larger implications section that describe promising practices that can be implemented by either the student or the disability services providers that improve the transfer of supports from postsecondary to employment settings. These promising practices will be either gleaned from the survey results and/or actual
practices suggested by the graduates.

The second brief will be targeted to researchers. It will provide a more substantial review of the problem and research questions, the findings, and recommendations for future research. It is anticipated that this study will lead to a more wide scale study funded by RSA or NIDRR through a field-initiated RFP.

**Develop articles (July – December 2002)**

At least one article will be submitted to at least one of the following peer-reviewed journals: AHEAD, Career Development of Exceptional Individuals, and/or Disability Studies Quarterly.

**Present information AHEAD (July 2002)**

Conference abstracts will be submitted to the Call for Papers for the AHEAD conference.

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**Limitations**

The proposed project is currently not set up to be longitudinal. However, the authors recognize that creating a longitudinal component such as administering the survey again in six months or a year’s time over a period of two or three years to the same groups would greatly enhance study design and credibility of results. Should this study become longitudinal as a follow-up activity, then it may be possible to develop a model of effective AT supports used in both college and workplace settings using multivariate analyses. Another limitation is that students from adult vocational postsecondary schools were not included in the sample, and adding this component would supplement our survey results with greater information, particularly in the area of technology transfer. Lastly, another limitation is our proposed small sample size, which greatly limits our statistical power and ability to generalize findings.
REFERENCES


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