

Effect of Postsecondary Education on Reducing SSI and SSDI Payments to Deaf and Hard of Hearing College Graduates¹

Gerard G. Walter

Jack R. Clarcq

National Technical Institute for the Deaf
Rochester, NY

Abstract

This report describes the impact that postsecondary education for deaf and hard-of-hearing students has on reducing dependency on federal Supplemental Security Insurance (SSI) and Social Security Disability Insurance (SSDI) payments. The National Technical Institute for the Deaf (NTID), a college of Rochester Institute of Technology (RIT), is used as a case study. The effects of gender, degree attainment and year of exit are key independent variables used in this study.

Thirteen percent of the deaf and hard-of-hearing sample received SSI, including 15% of the females and 11% of the males. The more advanced the degree, the less likely it is that a person will collect SSI. Most recent graduates (1992-1996) received SSI payments at a rate greater than those exiting between 1980-1991. For all degree levels the percentage receiving SSI decreases with age. Between 1980 and 1989 the rates for males and females were similar. However, female graduates between 1989 and 1996 were more likely to receive SSI than males

Twenty percent of the cases received SSDI, including 25% of the females and 17% of the males. Rejected and withdrawals were 2-3 times more likely to receive SSDI than deaf bachelor's graduates. The older an individual the more likely he or she will receive SSDI. The percentage of females and males receiving payments was similar during

the first few years after graduation but female participation increases significantly over time.

Acknowledgments

The authors wish to acknowledge the assistance of Dr. Robert Bowen of Rochester Institute of Technology's Office of Institutional Research and Planning for his invaluable assistance in creating the data sets and developing the matched sample of cases from the RIT Student Record's System.

We want to thank Peter Wheeler, Associate Commissioner of the Social Security Administration Division of Research and Statistics, for opening the doors of the Social Security Administration to us and to the able assistance of Charles Scott and his support and analysis. Needless to say, this study would not have been possible without their technical assistance.

Finally, we thank Richard Burkhauser, Sarah Blanding, Professor of Policy analysis and chair, Department of Policy analysis and Management at Cornell University, for providing us with valuable counsel regarding this research.

Introduction

The United States has a history of public policy focusing on "...increasing the ability of disabled workers to overcome their impairment through rehabilitation and job training" (Burkhauser & Haveman, 1982: p. 96). Federal disability policy provides education, training, and job-placement

¹The research reported in this document was conducted in the course of an agreement between Rochester Institute of Technology and the U.S. Department of Education.

services to assist disabled workers in gaining workplace access and accommodation. In recent years, competition for public funding to support education and training programs for working age disabled persons has increased, forcing programs to document and communicate the outcomes and benefits of their efforts. Programs need to provide constituencies with "...a better sense of what is being achieved with public resources" (Ruppert, 1994: 2).

Disability programs resulting from public policy and supported by federal and state funding are being challenged to see . . . whether the programs comprise the most efficient and equitable means of providing protection and social adequacy. [The evaluation is being spurred by a sense that]. . .the costs [of] these programs and taxes required to finance them are greater than necessary to provide a socially acceptable safety net (Burkhauser and Haveman, 1982: 96).

While it is assumed that programs for the disabled facilitate career enhancement and improvement in one's quality of life, public officials also view the venture as a strategic investment. "From this perspective, accountability becomes less a question of equitable and efficient operations than documenting a concrete return on investment" (Ewell, 1991: 14). One measure of return on investment is the extent to which postsecondary education that prepares disabled individuals for employment reduces dependency on SSI and SSDI payments. The National Technical Institute for the Deaf (NTID) is a federally funded postsecondary education program that prepares individuals for employment. As such, NTID needs to docu-

ment the return on the public investment, including reducing the dependency of its graduates on SSI and SSDI payments.

In assessing impact, leaders should be proactive and not wait for a crisis to occur before documenting benefits.

Administrators who want to strengthen the position and image of their agency...can emphasize to...stakeholders the contributions and benefits to the agency that the stakeholders value. It is especially important to emphasize these contributions and benefits on an ongoing basis and not wait until budget cuts or other problems arise (Knox, 1991: 245).

One question related to return on investment that educational programs for disabled individuals should address concerns the impact education has on reducing dependency on Federal Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) payments. Reducing program participation is critical since both SSI and SSDI tend to be programs that result in long term participation on the part of disabled persons once they begin receiving these entitlements (Burkhauser and Haveman, 1982). Professionals working in the rehabilitation and education of deaf and hard-of-hearing persons have, for a long time, indicated that many individuals are made dependent by their reliance on funds available through Federal SSI and SSDI. Yet there is no research to indicate whether such dependence exists and what variables impact receipt of payments. This paper focuses on the effect postsecondary education has on reducing this long-term dependency on SSI and SSDI transfer programs. To determine this dependency, NTID addressed the following questions:

Table 1 Number of cases sent to the SSA by gender and attainment level.

Gender	Sub Bachelor	Deaf Bachelor	Hearing Bachelor	Rejected	Withdrawal	Total	Percent
Male	1146	414	409	748	1688	4405	57%
Female	856	305	299	696	1112	3268	43%
Total	2002	719	708	1444	2800	7673	100%

- What are the effects of degree attained on receipt of SSI and SSDI payments?
- What are the effects of gender on receipt of SSI and SSDI payments?
- What are the effects of year of age on receipt of SSI and SSDI payments?

Methodology

To determine SSI and SSDI payments, the authors collaborated with the Social Security Administration, (SSA) Division of Research and Statistics. The project goal was discussed with SSA representatives, and a contract was negotiated for their services. SSA recovered full costs under the agreement. Information from SSA followed strict confidentiality guidelines. No data about individuals in the pool of subjects were reported. Individuals were not required to furnish any information, and no personal information was used in the data submitted by NTID.

NTID forwarded a data file of 7,673 cases to SSA. The file contained the following variables for each case: social security number, year of exit (1980 to 1996), gender, and degree attainment. The degree attainment variable had five categories: hearing with a bachelor degree from RIT; deaf with a bachelor's degree from NTID/RIT; deaf sub-bachelor's graduate from NTID; attended NTID / RIT but withdrew prior to receiving a degree; and applied to NTID but who were rejected (denied admission). Withdrawals and rejected students were studied in order to measure the effect of not completing college. The assumption could be made that the rejected students are a reasonable proxy for students with no college experience.

The sample was retrieved from the Student Record System at the Rochester Institute of Technology (RIT). This study is intended to measure the impact of education on NTID students and is not meant to be representative of deaf and hard-of-hearing persons in the United States.

Table 2

Number of cases sent to SSA by year of exit and attainment level.

Year of Graduation	Sub Bachelor	Deaf Bachelor	Hearing Bachelor	Rejected	Withdrawal	Total
1980	139	35	34	131	144	483
1981	155	31	31	103	123	443
1982	119	31	31	69	127	377
1983	138	26	26	115	181	486
1984	135	40	40	152	174	541
1985	129	39	39	118	204	529
1986	174	28	27	100	200	529
1987	156	30	29	90	196	501
1988	101	42	42	79	175	439
1989	127	45	43	70	126	411
1990	113	37	36	61	180	427
1991	100	48	48	45	155	396
1992	92	48	48	72	141	401
1993	83	52	51	57	168	411
1994	107	58	59	80	167	471
1995	69	66	65	38	137	375
1996	65	63	59	64	202	453
Total	2002	719	708	1444	2800	7673

SSA matched the 7,673 subjects with national records of individuals receiving SSI and/or SSDI payments in July 1998.¹ Table 1 presents information regarding gender and degree attainment of cases in this study.

Fifty-seven percent of the cases were male and 43% female. The number and percentage of males exceeded females at all attainment levels. The data file also contained information on year of exit. (Table 2). In this study, year of exit refers to the year an individual completed a degree, was rejected (denied admission), or withdrew from NTID before receiving a degree. As seen in Table 2, the percentage of cases was evenly distributed across all years of exit.

Disability Payments

Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) provide disabled individuals with income support to facilitate career enhancement and improvement in quality of life. Approximately 60 percent of U.S. students receive SSI payments while attending NTID (Clarcq and Walter 1998). One outcome measure, then, is the extent to which postsecondary education that prepares deaf and hard-of-hearing individuals for employment reduces dependency on SSI and SSDI payments in a national environment where the numbers of disabled individuals receiving benefits is increasing (Mashaw, Reno, Burkhauser and Berkowitz, 1996: 119).

Supplemental Security Income

Supplemental Security Income (SSI), a federal entitlement program established in 1972, is for disabled individuals with little or limited resources. This program is an important part of this country's income support policy. General funds from the U.S. treasury finance the program. To be considered disabled for SSI an "...adult must have a physical and/or mental problem that keeps them from working for at least 12 months..." (Social Security Programs Can Help, 1995: 1). To be eligible for SSI a person must be a U.S. citizen or legal resident. Previous research by the authors (Clarcq and Walter, 1997) indicates that approximately 60 percent of all U.S. students attending NTID receive SSI benefits while enrolled. This 60 percent figure can be used as a baseline against

which to judge the effect of college graduation on reducing dependence on SSI entitlements. These funds, averaging approximately \$400 per month, are intended to provide a security net for individuals with limited resources. It is interesting to note, (Table 3 and Figure 1) that students applying to NTID and who were subsequently rejected received SSI payments at levels similar to students attending NTID. NTID students typically use these funds to defray the individual costs of their education.

Table 3 presents information—by age and education level—about the percentage of subjects who collected SSI benefits during July 1998. While this is a one-month snapshot, the figures obtained match those from earlier research (Clarcq and Walter, 1996) and therefore, will be used as representative of SSI rates. Age has a significant impact on receipt of SSI payments. Those exiting most recently (24 to 28 year olds) received SSI payments at rates greater than those who exited 16 to 18 years earlier (36 to 40 year olds). It is noteworthy that, for all groups, the percentage decreases with age. As a point of reference, by age 40 approximately nine percent of male and female withdrawals continue to collect payments, while for graduates the percentage is zero.

As indicated, on average, 60 percent of students attending NTID collect SSI while enrolled. This percentage represents approximately the same rate of SSI participation as for 20-year-old students rejected for admission. However, after graduation, the rates decline rapidly to the point that they are almost zero within ten years after graduation. Students who did not graduate maintain relatively high levels of SSI throughout the period of this study.

Social Security Disability Insurance

Social Security Disability Insurance (SSDI) is a federal social insurance program established in 1956 for disabled workers who are eligible for Social Security coverage (Social Security Disability Programs Can Help, 1995). "A person will be considered disabled if she or he is unable to do any kind of work for which they are suited and their disability is expected to last for at least a year..." (West, 1995: 2). A Social Security Administration priority is to help beneficiaries become independent and to take advantage of employment opportunities. SSDI is not intended to be a perma-

Table 3
Percentage of subjects receiving SSI benefits by age, degree, and gender.

Age	MALE					FEMALE				
	Hearing BS	Deaf BS	Sub BS	Withdrawn	Rejected	Hearing BS	Deaf BS	Sub BS	Withdrawn	Rejected
20		45%	63%	57%	60%		59%	67%	64%	72%
21		45%	63%	57%	48%		59%	67%	64%	57%
22		45%	63%	57%	41%		59%	67%	57%	49%
23		45%	63%	42%	36%		59%	67%	44%	43%
24	0%	45%	19%	33%	32%	2%	59%	29%	37%	38%
25	0%	45%	14%	27%	28%	1%	59%	22%	32%	34%
26	0%	6%	11%	24%	26%	1%	13%	17%	28%	31%
27	0%	4%	9%	21%	23%	1%	10%	14%	24%	28%
28	0%	3%	8%	18%	21%	1%	8%	12%	22%	26%
29	0%	3%	7%	16%	19%	1%	6%	10%	19%	24%
30	0%	2%	6%	15%	18%	0%	5%	9%	17%	22%
31	0%	2%	5%	13%	16%	0%	4%	7%	15%	20%
32	0%	2%	4%	12%	15%	0%	4%	6%	14%	18%
33	0%	1%	3%	11%	13%	0%	3%	5%	12%	16%
34	0%	1%	3%	9%	12%	0%	2%	4%	11%	15%
35	0%	1%	2%	8%	11%	0%	2%	3%	9%	14%
36	0%	1%	1%	7%	10%	0%	1%	2%	8%	12%
37	0%	1%	1%	7%	9%	0%	1%	2%	7%	11%
38	0%	0%	0%	6%	8%	0%	0%	1%	6%	10%
39	0%	0%	0%	5%	7%	0%	0%	0%	5%	9%
40	0%	0%	0%	4%	6%	0%	0%	0%	4%	8%

ment source of income. Rather, it is meant to improve a person's economic condition. However, nationally, fewer than 10 percent of disabled individuals receiving benefits will leave the SSDI roles (Mashaw, Reno, Burkhauser, and Berkowitz, 1996).

SSDI is funded with Federal Insurance Contributions Act (FICA) taxes paid by employers and workers. Eligibility for disability benefits is based on a person's work history and the benefit amount depends on one's earnings. Individuals must have worked and paid FICA tax for enough years to be covered under Social Security, and some of the taxes must have been paid in recent years. The SSDI payment amount is based on a worker's life-

time average earnings covered by social security. At the time of this study, to be eligible for SSDI a disabled person must not be working or working but earning less than the Substantial Gainful Activity (SGA) level (\$500/month). In essence, SSDI is an unemployment benefit for a person with a disability. The benefit doesn't stop until the person finds a job that exceeds the SGA level.

Table 4 and Figure 2 provide information—by degree attainment and age—about the percentage of males and females receiving SSDI. It should be noted that almost no one attending NTID collected SSDI. This is because most students do not meet SSDI participation requirements before enrolling. In contrast, immediately after exit significant num-

Figure 1

Percentage of males and females receiving SSI payments by age and education level

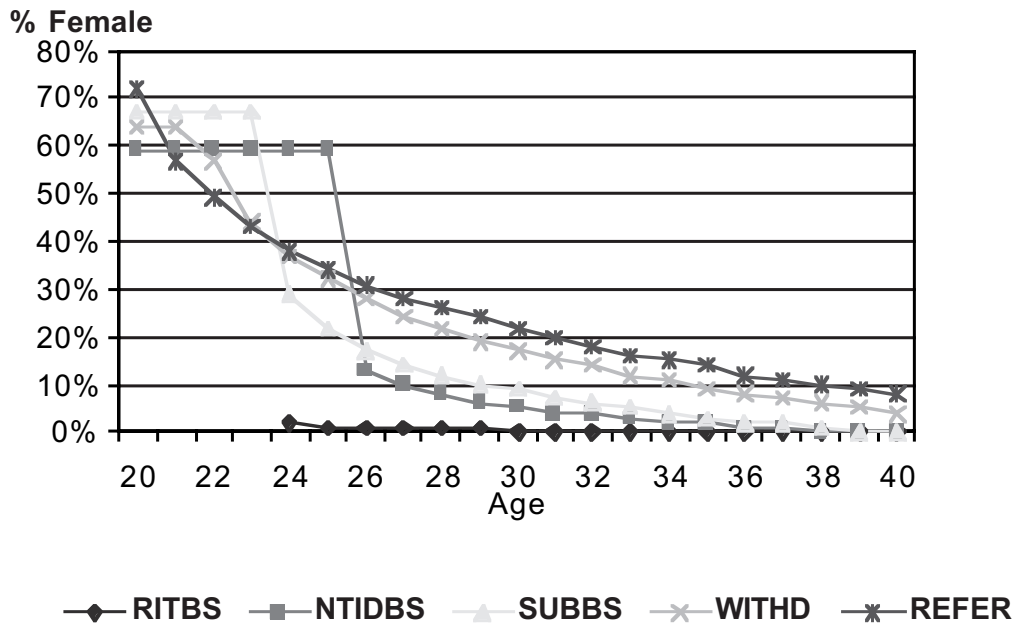
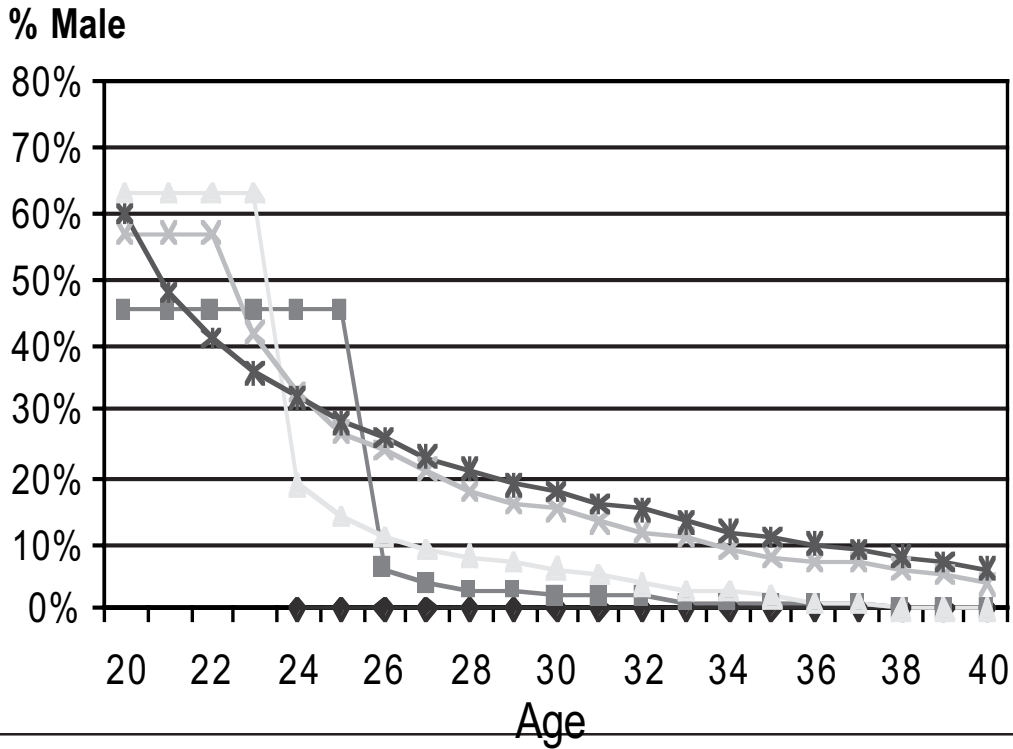


Table 4
Percentage of subjects receiving SSDI benefits by age, degree, and gender

Age	MALE					FEMALE				
	Hearing BS	Deaf BS	Sub-BS	Withdrawn	Rejected	Hearing BS	Deaf BS	Sub-BS	Withdrawn	Rejected
20					7%					19%
21					12%					22%
22				23%	15%				21%	24%
23				23%	17%				24%	25%
24	1%		14%	23%	18%	3%		21%	26%	26%
25	0%		13%	23%	20%	2%		23%	28%	27%
26	0%	17%	13%	23%	21%	2%	5%	24%	29%	28%
27	0%	15%	13%	23%	22%	1%	10%	24%	29%	28%
28	0%	14%	13%	22%	23%	1%	12%	25%	30%	29%
29	0%	13%	13%	22%	23%	1%	14%	25%	31%	29%
30	0%	12%	13%	22%	24%	1%	15%	26%	31%	30%
31	0%	12%	13%	22%	25%	1%	16%	26%	32%	30%
32	0%	11%	13%	22%	25%	0%	17%	26%	32%	30%
33	0%	11%	13%	22%	26%	0%	18%	26%	32%	31%
34	0%	10%	13%	22%	26%	0%	19%	27%	33%	31%
35	0%	10%	13%	22%	27%	0%	19%	27%	33%	31%
36	0%	10%	12%	22%	27%	0%	20%	27%	33%	31%
37	0%	9%	12%	22%	27%	0%	21%	27%	34%	32%
38	0%	9%	12%	22%	28%	0%	21%	27%	34%	32%
39	0%	9%	12%	22%	28%	0%	21%	27%	34%	32%
40	0%	9%	12%	22%	28%	0%	22%	28%	34%	32%

bers begin collecting benefits. This is probably because numbers of students have worked while in college, either at part time jobs or in cooperative education positions, and become eligible for benefits. On average 15 percent of all male graduates and 20 percent of female graduates collected SSDI benefits one year after graduation.

As with the percentage of subjects reporting earnings, there are significant differences between males and females. For both males and females the percentage of cases collecting SSDI benefits who withdrew or were rejected at admission was greater than for students who graduated. The percentage of male graduates collecting SSDI gradually decreases with increasing age, while the rate

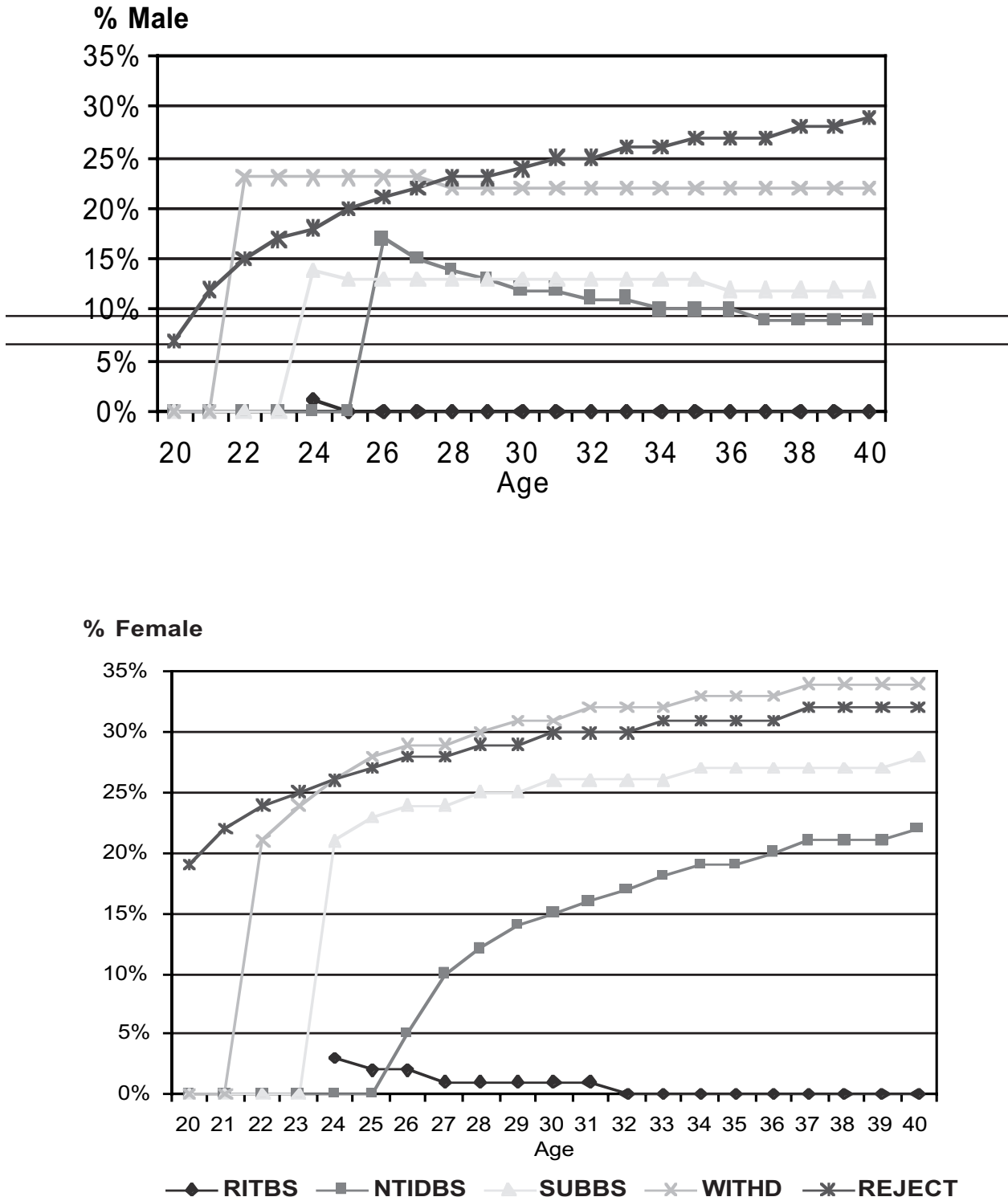
increases for females. By age 40 approximately 10 percent of male graduates collected SSDI benefits, compared with approximately 30 percent of females who did not graduate. Over time, graduation from NTID reduces dependency on SSDI, especially for males. For females, graduation reduces the numbers receiving SSDI payments.

Summary

Completing college certainly reduces the probability that a deaf and hard-of-hearing person will collect SSI or SSDI. By age 40 no graduates are collecting SSI while five percent of non-graduates continue to participate in the program. This re-

Figure 2

Percentage of males and females receiving SSDI payments by age and education level.



duction is especially noteworthy when one considers that approximately 60 percent of graduates were receiving SSI benefits while enrolled as students.

SSI contrasts with SSDI in that, while they were students, virtually no graduates were participating in the SSDI program, but by age 40 about 10 percent of males and 25 percent of female graduates are collecting SSDI. These rates compare to approximately 30 percent for non-graduates. It also appears that individuals graduating with sub-bachelor's degrees have higher rates of SSDI participation than individuals graduating with bachelor's degrees. These higher rates are probably the result of increased unemployment on the part of sub-bachelor's graduates, and might be indicative of employability problems of some persons graduating at this level.

While SSDI rates for males are relatively flat over time, rates for females increase with time. It appears that females use SSDI as an income support during their child rearing years. One unanswered question is whether these individuals will return to the workforce after their childbearing years. Mashaw, Reno, Burkhauser and Berkowitz (1996) indicate that, nationally, fewer than 10 percent of individuals collecting SSDI are ever removed from the rolls. If these national statistics apply to deaf women, than it can be expected that an increasing number of highly educated deaf and hard-of-hearing females will collect SSDI throughout their life.

Policy Implications

The findings suggest that federal funding of post-secondary programs such as NTID reduces continued dependence on SSI and SSDI programs, especially for graduates. However, there are differences between these two programs.

An earlier study (Clarcq and Walter, 1997) found that approximately 60 percent of students attending NTID were receiving SSI. Ten years after graduation less than one percent of these graduates are collecting SSI, while ten percent of non-graduates continue to receive benefits even into their 30s. Training programs have a significant impact in improving overall income levels to avoid continued dependence on the income supports provided through the SSI program.

The findings are not as clear for SSDI, since there is a relatively high percentage of graduates

who are receiving SSDI benefits well into their thirties. The issue to be addressed is whether the reported levels of 18 percent for sub-bachelor's and 13 percent for bachelor's graduates are acceptable. Certainly these levels are lower than the 30 percent (30%) reported for those who do not graduate. While college graduation reduces the probability that individuals will collect SSDI, significant numbers of graduates (12 percent of male and 30 percent of female) are receiving payments 10 years after graduation. As long as U.S. disability policy permits deaf and hard-of-hearing persons to qualify for SSDI there will be a certain percentage of people taking advantage of the benefit.

The high percentage of females collecting SSDI deserves special note, though it is not possible from this study to assess whether the relatively higher percentage of female participation is based on income need or on the fact that SSDI is a social benefit of which deaf and hard-of-hearing women of childbearing age can take advantage. Findings from this research indicate that many deaf and hard-of-hearing women who were previously employed begin collecting SSDI by the time they are in their early thirties. The policy issue raised is whether this is an intended use of SSDI.

Another question raised for further study is whether there is any relationship between major area of study and the probability of collecting SSDI. The results of this study poses the hypothesis that programs whose graduates seek employment in areas where the salary levels are only slightly above minimum wage (i.e. less than 10 dollars per hour) and for which there is little opportunity for job advancement, are prime candidates for SSDI. It makes economic sense, since the difference between the SSDI benefit and the wage potential is relatively narrow. The question NTID must address is whether there are such programs and whether these programs are responsible for the higher than desired level of graduates collecting SSDI, especially at the sub-bachelor's level.

The findings discussed in this report suggest that further research must be conducted which evaluates the relationship between major area of study and relative earnings level of persons collecting SSDI at a point in time. Research of this nature would offer reason(s) for collecting SSDI. For example, it is possible that some sub-bachelor's graduates have difficulty enhancing their technical skills and thus need SSDI payments

as part of the process of developing new skills necessary to function in the workplace. Such findings could provide information concerning levels of earnings and participation in SSI and SSDI programs to be expected from graduates of majors offered through the college of NTID.

Endnote

1. We use the July participation rates as representative of average rates across a year. While the authors recognize there may be monthly variations in the numbers of individuals collecting SSI and SSDI, a study conducted in 1996 with NTID alumni as subjects (Clarq and Walter, 1997) indicated similar overall rates of participation as the current study.

References

Burkhauser, R.V. and Haveman, R.H. (1982). *Disability and work economics of America*. Baltimore: The Johns Hopkins University Press.

Christal, M.E. (1998). *State survey on performance measures: 1996-97*. Denver, CO.: State Higher Education Executive Officers.

Clarq, J.R. and Walter, G.G. (1997). *SSI benefits collected by NTID students Rochester*. NY: Rochester Institute of Technology.

Ewell, P.T. (1991). Assessment and public accountability: back to the future. *Change*. 23(6), 12-17.

Knox, A.B. (1991). Educational leadership and program administration. In John M. Peters and Peter Jarvis and Associates. *Adult Education Evolution and Achievements in a Developing Field of Study*. San Francisco: Jossey Bass.

Mashaw, J., Reno, V., Burkhauser, R., and Berkowitz, M. (1996). *Disability: Work And Cash Benefits*. Kalamazoo: W.E. Upjohn Institute for Employment Research.

Ruppert, S. (Ed) (1994). *Charting higher education accountability: a sourcebook on state-level performance indicators*. Denver, CO: Education Commission of the States.

Red book on work incentives. (1995). SSA Publication No. 64-030. Social Security Disability Programs. (1991) SSA Publication No. 05-10057.

Social Security programs can help. (1995). SSA Publication No. 05-10057.

When you can get Social Security disability. (1993). SSA Publication No. 05-10153

West, J. (ed.) (1991). The American with Disabilities Act. "Summing up opportunities for implementation". 333-334.