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Outcomes for students declassified from special education

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OUTCOMES FOR STUDENTS DECLASSIFIED FROM SPECIAL EDUCATION

A Dissertation

Presented to

The Faculty of the School of Education

The College of William and Mary in Virginia

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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by

Elaine Carlson

November 1997

OUTCOMES FOR STUDENTS DECLASSIFIED

FROM SPECIAL EDUCATION

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This dissertation is dedicated to Marion L. Carlson and Edward H. Carlson, who personify the principles of lifelong learning; and to Gary Shelly, for his unwavering love and support.

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Abstract

This dissertation employed data from the National Longitudinal Transition Study (NLTS) and case studies of five youth to describe outcomes for students who were declassified from special education. The NLTS tracked a nationally representative sample of youth for three years as they left school and adopted adult roles. Analyses showed that youth who were declassified from special education in secondary school differed from youth who remained in special education based on their disability, family income, and head of household's education. Declassified youth's schools were larger, had fewer low-income families, and saw more of their graduates enrolled in postsecondary academic or vocational training. Further, declassified youth exhibited better secondary and postsecondary outcomes than classified youth. Despite these differences, a multivariate model was unable to predict declassification well based on individual and family characteristics and school context. The case studies showed the unique circumstances under which students were declassified. Appropriate procedures for declassifying students with disabilities should be developed to maximize the likelihood of their success, and local educators should establish mechanisms for monitoring the progress of recently declassified students.

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OUTCOMES FOR STUDENTS DECLASSIFIED FROM SPECIAL EDUCATION

Chapter 1: Introduction

Recent reforms in education have been driven, in part, by a series of reports suggesting that America's students are unable to meet contemporary economic and societal demands. Special education reforms such as inclusion and transition planning have paralleled the general education reform movement and, like their general education counterparts, draw energy from negative research findings. A number of follow-up studies of special education students were conducted in the 1980s. In these studies, researchers reported generally poor post-school outcomes for students with disabilities, including low rates of employment and postsecondary enrollment, residential dependence, and inadequate wages and benefits (Affleck, Edgar, Levine, & Kottering, 1990; deBettencourt, Zigmond, & Thornton, 1989; Edgar, 1987; Hasazi, Johnson, Hasazi, Gordon, & Hull, 1989; Mithaug, Horiuchi, & Fanning, 1985). Briefly, these outcome studies have promulgated the notion that special education does not provide the assistance necessary for students with disabilities to become successful students and community members. As a result, policymakers, legislators, and practitioners have sought alternative educational strategies to replace those perceived to be inadequate.

Declassification

The Individuals with Disabilities Education Act (IDEA) (Section 300.5) defines students with disabilities as those children who, because of their impairments, need special education and related services. Through declassification, students previously identified as

having a disability that required special education services return to full-time general education programs. Many follow-up studies draw their samples from the population of students who were in special education at the time they left school (Hasazi, Gordon, & Roe, 1985; Mithaug et al., 1985; Sitlington, Frank, & Carson, 1992). This practice overlooks outcomes for students who were in special education at some point in their school career, but were declassified and returned to full-time general education programs due to academic or behavioral improvement, changes in eligibility criteria, or enhanced general education services.

While the prevention of disabilities is well integrated in the language of early intervention programs (Colorado State Department of Education, 1982; Corsini & Rho, 1990; Edgar, Heggelund, & Fischer, 1988; Edgar, McNulty, Gaetz, & Maddox, 1984; Hume & Dannenbring, 1989; Miller, Strain, McKinley, Heckathorn, & Miller, 1993; Raber & Frechtling, 1985; Thurlow & Ysseldyke, 1988), the number of school-age students with disabilities returning to general education programs is rarely mentioned in the literature as an appropriate outcome indicator. Furthermore, researchers and policymakers tend to deemphasize the number of students with disabilities who are declassified. Lipsky and Gartner (1992) asked, □Are the data [on declassification] not collected because they would show low rates, perhaps in the single figures? Or is it because students in special education are not expected to achieve, to compete, or to succeed?" (p. 4). Many educators seem to feel that once students are placed in special education, they remain in special education indefinitely (Edgar et al., 1988). While discussion of the special education dropout rate has flooded the literature (Edgar, 1987; Jay & Padilla, 1987;

MacMillan et al., 1992; Wolman, Bruininks, & Thurlow, 1989; Zigmond & Thornton, 1985), discussion of declassification is all but nonexistent, even though declassification may be more common than dropping out. The annual dropout rate in 1993-94 for students with disabilities age 14 and older was 5%; by comparison, the cohort rate was approximately 26% (U.S. Department of Education, 1996). Recent estimates of the percentage of students declassified range from 4% to 8.6% annually, depending, in part, on the age range sampled (Carlson & Parshall, 1996; Halgren & Clarizio, 1993; U.S. Department of Education, 1996; Walker et al., 1988).

Eligibility Issues

Prior to investigating declassification from special education, it is useful to consider what it means to have a disability or to be considered eligible for special education services. Clearly, there are cultural differences in the perception of disability, in part, because the disadvantage posed by a disability depends on the capacities most valued in a culture. For example, the current American concept of disability has its roots in Europe, and implies concern with qualities of individual independence, achievement, and equality that are central to our culture. The nature of our economy, notions of personal worth, and the value we place on self-sufficiency all contribute to our definition of disability. Thus, the concept of disability is widely regarded as a function of social, cultural, political, and economic forces (Arokiasamy, Rubin, & Roessler, 1987; Hahn, 1985; Skrtic, 1991; Wright, 1983). In many economically developing countries, disability is conceptualized differently, focusing primarily on physical strength and movement, while

downplaying notions of mental retardation, learning disabilities, and mental illnesses (Ingstad & Whyte, 1995).

Disability labels in the United States affect decisions about the distribution of services and support, taking on a political role. Provision of special education services, distribution of Social Security benefits or other disability insurance, protection against discrimination, and accommodation in employment make it necessary for our society to develop objective criteria and measures of disability so federal, state, and local governments may be perceived as distributing resources fairly (Szymanski & Trueba, 1994; Whyte & Ingstad, 1995).

Inevitably, such eligibility decisions lead to cut-offs, which imply a qualitative difference between groups of individuals. These decisions create a dichotomy between those who are eligible and those who are not. To receive services to address mental retardation, for example, a student must have an IQ score of 70 or lower and deficits in adaptive behavior. As a result, a student with an IQ score of 71 is as ineligible for services for mental retardation as a student with an IQ score of 125 (Braden & Algina, 1989). Forgotten within this system is the notion of a continuum of abilities and disabilities. Braden and Algina (1989) compared the process of determining who has a disability to pointing "... to an exact spot in a sunset where red changes to orange" (p. 5).

In fact, this process has proven difficult for local multidisciplinary teams who are responsible for determining individual students' special education eligibility. Several researchers have found that students identified as having specific learning disabilities are no different from unidentified, low-performing students (Keogh, 1990; Ysseldyke,

Algozzine, Regan, & Potter, 1980; Ysseldyke, Algozzine, Shinn, & McGue, 1982). In one study, subjects who had experience serving on multidisciplinary teams (teachers, administrators, and school psychologists) were asked to determine the eligibility of a hypothetical student based on demographic data, medical history, physical attractiveness, assessment data, and the reason for referral. All of the data provided to the participants indicated that the student's test performance and behavior were within the average range, yet 51% of the participants identified the hypothetical student as eligible for special education (Algozzine, & Ysseldyke, 1981).

Research suggests that socioeconomic factors, demographic factors, and the nature of teacher referrals may all contribute to eligibility decisions (Barona & Faykus, 1992; O'Reilly, Northcraft, & Sabers, 1989; Algozzine & Ysseldyke, 1981). Socioeconomic status and ethnicity show small but significant effects on eligibility (Barona & Faykus, 1992), as do the nature of teachers' referrals (O'Reilly et al., 1989).

Several additional reasons for the difficulty in identifying students as eligible for special education services are suggested in the literature. For example, eligibility criteria may be ambiguous (Ysseldyke, Algozzine, & Epps, 1983); pressure to place children in categorical programs may be strong (Christenson, Ysseldyke, & Algozzine, 1982); or multidisciplinary teams may lack confidence in general education programs' capacity for meeting students' needs (Algozzine & Ysseldyke, 1981). Because of the importance of special education eligibility decisions, both in terms of financial cost and effects on children, one would expect these decisions to be valid and reliable. Yet this may not be the case.

The medical model of special education holds that disability is intrinsic to the child, and can be identified by means of available assessment tools. Yet research suggests that many students found eligible for special education services, particularly those identified with learning disabilities, cannot be distinguished from unidentified students (Keogh, 1990; Ysseldyke et al., 1980; Ysseldyke et al., 1982). Special education personnel have struggled with distinctions between social maladjustment and emotional disability, in some cases, ignoring the issue altogether even though federal eligibility criteria exclude students with social maladjustment (Stein & Merrill, 1992; Weinberg & Weinberg, 1990; Zabel, 1986).

More recent conceptions of educational disability focus on a match or mismatch between the student's needs and the educational system. These two views of disability are reflected in the literature on declassification. If one views disability through a medical model, declassification becomes the equivalent of a cure: Students had disabilities; they no longer have those disabilities; they are well. When one views disability as an incongruence between the educational system and the student, on the other hand, declassification may reflect one of two things -- a change on the part of the student or a change on the part of the educational system. As in the example of Vermont's Act 230, resources previously unavailable in the general education setting were brought to bear, allowing students with disabilities to benefit from regular classroom instruction. Students were not cured of their disabilities, rather the system became better aligned with their needs. From a third perspective, declassification may be seen as a process for correcting inappropriate eligibility decisions. That is, if a local multidisciplinary team inaccurately identified a

student as eligible for special education, that decision may be reversed through declassification.

Purpose of the Study

To facilitate interpretation of national data on declassification, additional information is needed on outcomes for special education students who are declassified and return to full-time general education programs. Earlier studies suggest differences in outcomes for declassified students based on their identified disabilities, length of enrollment in special education, and the amount of general education support available (Carlson & Parshall, 1996; Kane et al., 1995; Koppitz, 1971). This study addressed the following specific questions:

1. What were the characteristics and educational experiences of youth who were declassified from special education in secondary school?
2. How do outcomes for declassified youth compare with outcomes for youth who remained in special education throughout secondary school?
3. What variables seem to account for variation in educational outcomes among declassified youth?
4. To what extent are reported outcome data biased by the exclusion of students who were declassified before leaving secondary school?

This study uses previously unanalyzed data from the National Longitudinal Transition Study of Special Education Students and case studies of declassified youths to address these study questions. It is structured in the following manner. Chapter 2 synthesizes findings from previous research. Chapter 3 describes the methods used to

collect and analyze the data for the study. Chapter 4 presents the study's findings and addresses the study questions posed in Chapter 1. Chapter 5 interprets the findings presented in Chapter 4 in light of previous research, explores the implications of those findings, and presents recommendations. Three appendices complete the report. The first includes supporting data tables, the second includes complete copies of the case study narratives, while the third contains a copy of the interview guides used to collect data from case study participants.

Chapter 2: Review of Previous Research

The students of interest in this study are those who were eligible for special education services at one time but who, either due to improved educational performance, changes in eligibility criteria, or enhanced general education services were later found ineligible for services. Because of the study's emphasis on secondary-aged students with disabilities and post-school outcomes as a measure of success, this review of previous research begins with a description of transition from secondary school to postsecondary roles. The second section reviews findings on postsecondary adjustment of youth with disabilities in the years shortly after high school, including employment, postsecondary education and training, residential independence, and social adjustment. In the third section, factors affecting postsecondary adjustment are described. The chapter then more specifically in examines previous research on students who have been declassified from special education, including the number and characteristics of declassified students and factors affecting rates of declassification, outcomes for declassified students, and factors affecting adjustment for declassified students. The chapter ends with a brief set of conclusions.

Transition from Secondary School to Postsecondary Roles

Concerns with post-school outcomes for students with disabilities prompted Congress to include in the 1990 amendments to IDEA a requirement for transition

planning for students age 16 and older.[1] The legislation defines transition services as a "coordinated set of activities for a student, designed within an outcome oriented process, which promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living or community participation" (Section 300.18). The broad definition of transition services used in the legislation supports the notion that employment is not the only appropriate goal of education. Personal autonomy, social participation and integration, lifestyle choice, as well as economic self-sufficiency, are all seen as goals of education and transition (Sailor, 1989).

Coinciding with the move toward transition planning was a change in the orientation of special education program evaluation, away from a process orientation toward an outcome orientation. As a result, the success of special education has been increasingly judged by students' educational achievement and adjustment to postsecondary roles. Parallel efforts have been underway to describe and measure quality of life for young adults, and to relate the construct of quality of life to educational outcomes or goals. Physical and material well-being, performance of adult roles, and personal fulfillment are all considered domains of the construct called quality of life (Halpern, 1993). Further, it is generally accepted that components of quality of life and outcome domains are the same for youth with and without disabilities (Dennis, Williams, Giangreco, & Cloninger, 1993; Ysseldyke et al., 1991).

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[1]The 1997 amendments to IDEA reduced the age for required transition planning to 14.

Much of the research on transition of youth with disabilities from secondary school to adult roles has focused around two central questions. First, how well are youth with disabilities doing in achieving the goals set forth in the quality of life literature? Second, what personal, familial, contextual, and educational factors appear to affect post-school adjustment? Figure 1 presents a conceptual framework for the transition experiences of youth with disabilities as they leave secondary school and move into adult roles. Developed as part of the National Longitudinal Transition Study (NLTS), the framework graphically depicts the relationships among individual/family/community characteristics, school context, school programs/services, student outcomes, young adult outcomes, and adult programs and services. It also shows variables of interest within each model component. The conceptual framework is used throughout this study as a structure for sorting information, and as a basis for exploring relationships among variables.

Postsecondary Adjustment for Youth with Disabilities

As mentioned earlier, the quality-of-life literature touches on a broad range of adult outcomes, including employment, enrollment in postsecondary education and training, residential independence, and social or community involvement. This section describes outcomes for youth with disabilities in the years following high school in each of these domains and overall.

Employment

In the years following high school, youth with disabilities have lower rates of employment than youth without disabilities, and many are employed in positions that pay low wages, offer few benefits, and have limited opportunities for advancement (Edgar,

1987; Sitlington et al., 1992; Wagner et al., 1991). Nonetheless, most youth with disabilities who are employed express satisfaction with their jobs (Wagner, D'Amico, Marder, Newman, & Blackorby, 1992).

Approximately 40% of youth with disabilities were competitively employed in full-time positions three to five years after secondary school; an additional 14% were employed part-time. A small percentage (5.6%) were employed in sheltered or noncompetitive employment. Despite improvements in employment in the years following high school, unemployment was still an issue; 36% of youth with disabilities were unemployed three to five years after leaving school. Yet for various reasons, including enrollment in postsecondary education or training, or child rearing, most unemployed youth were not seeking work (Blackorby & Wagner, 1996; Wagner et al., 1992).

Wages for youth with disabilities improved considerably in the years after high school. Forty percent of those out of school three to five years earned more than $6.00 per hour compared with 9% of those out of school up to two years. While most youth with disabilities out of school up to two years earned less than $4.30 per hour, that percentage dropped to one-fourth for those out of school three to five years (Blackorby & Wagner, 1996; Wagner et al., 1992).

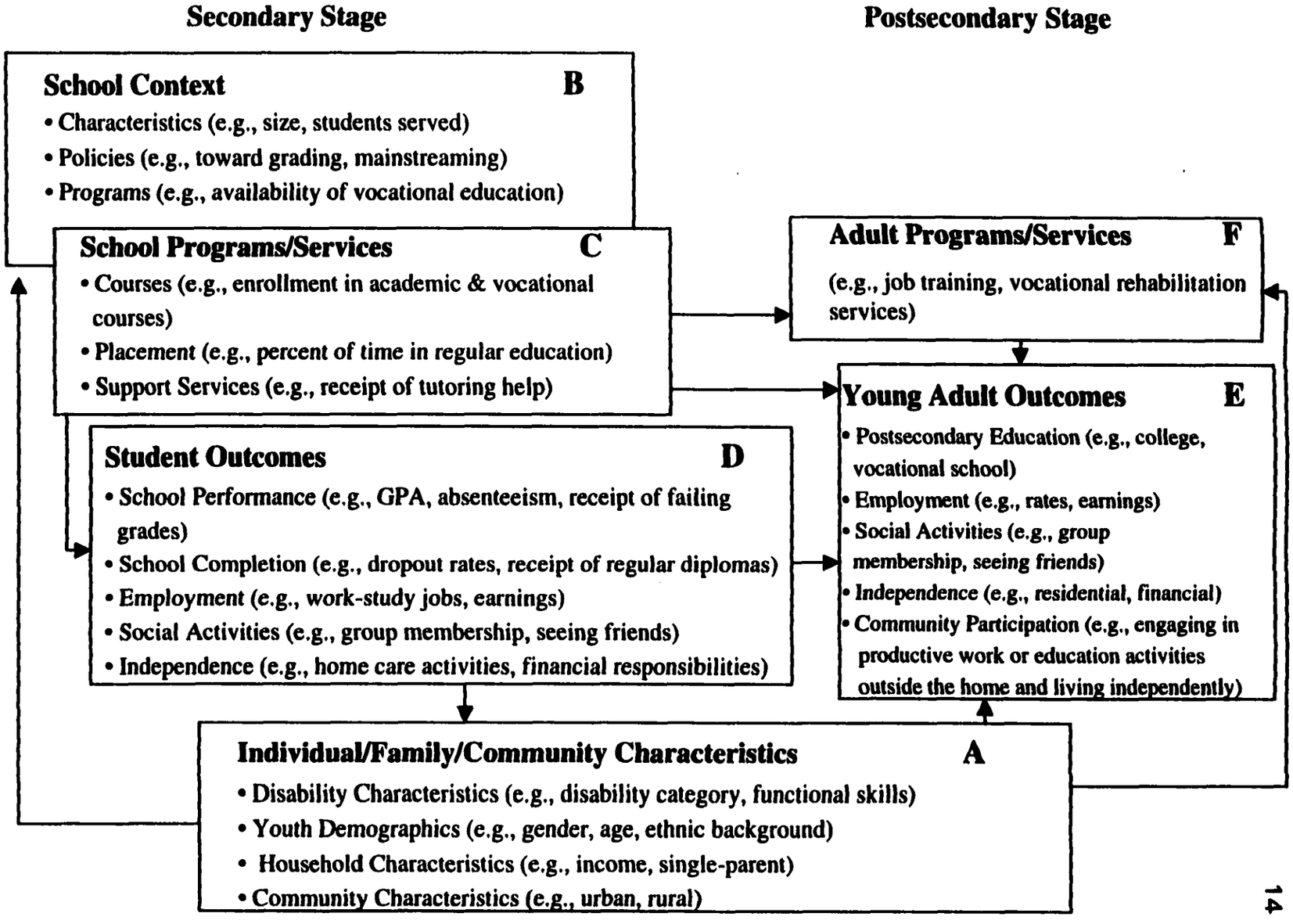

Figure 1. NLTS conceptual model of secondary transition for students with disabilities.

Postsecondary Education and Training

Students with disabilities are more likely than those without disabilities to drop out of high school (Edgar, 1987; Jay & Padilla, 1987; Wagner et al., 1991; Zigmond & Thornton, 1985), and, once they drop out, they are less likely to return to high school or earn a high school equivalency diploma. In fact, dropouts in the general population were twice as likely as dropouts with disabilities to have completed high school after dropping out (Wagner et al., 1992). Three to five years after dropping out of high school, almost one-third of youth with disabilities still had not earned a diploma.

It is perhaps not surprising to find that many youth with disabilities did not receive any postsecondary education or training in the years following high school. Three to five years after high school, 27% of youth with disabilities had received some type of vocational training or college education. This compares with 68% of youth without disabilities. Even those youth with disabilities who received a high school diploma enrolled in postsecondary education and training at far lower rates than their nondisabled peers (Blackorby & Wagner, 1996; Wagner et al., 1992). Youth in the general population showed a higher rate of postsecondary enrollment than youth with disabilities even when data for the general population were adjusted to match youth with disabilities on the basis of race/ethnicity, gender, and head of household's education (Blackorby & Wagner, 1996). Among those youth with disabilities who received postsecondary training, community colleges and the military were the most common educational environments for such instruction (Sitlington et al., 1992).

Residential Independence

Shortly after leaving secondary school, most youth with disabilities continued to live with their parents (Sitlington et al., 1992; Wagner et al., 1992). Youth with disabilities out of school three to five years were far more likely to live independently than those out less than two years (37% compared with 11%). However, even after this improvement, youth with disabilities were still only one-half to two-thirds as likely as youth without disabilities to live independently (Blackorby & Wagner, 1996; Wagner et al., 1992).

Social Adjustment

Many young adults with disabilities (38%) saw friends or family members socially at least four days per week. Others had fewer social contacts, but only 5% to 6% of youth with disabilities were socially isolated, meaning they saw friends less than once a week, did not belong to social groups, and were not married or engaged (Wagner et al., 1992). Youth with disabilities were less likely than their typical peers to be married or living with a person of the opposite sex (19% compared with 30%), but 24% of young adults with disabilities had children of their own. Forty-one percent of young women with disabilities had a child when they were out of high school three to five years; half these women were single mothers (Wagner et al., 1992).

Overall Postsecondary Adjustment

In the years after secondary school, 20% of youth with disabilities were engaged full-time outside the home in either employment or education, lived independently, and were socially integrated in their communities. Forty-three percent of youth participated in

two of the three dimensions, engagement, residential independence, or social/community integration. The remaining 27% of youth were not fully participating in either the engagement or residential dimensions. While these profiles showed some improvement from the years immediately following high school, those considered engaged full-time outside the home were primarily employed in low skill and low wage positions (Wagner et al., 1992).

Factors Affecting Postsecondary Adjustment

Various educational and student-specific factors were clearly associated with post-school adjustment. Type of disability, family background, and educational experiences all influenced post-school outcomes for youth with disabilities.

Disability

Youth with learning disabilities were more likely than youth with other disabilities to be employed, and were more likely to live independently (Sitlington et al., 1992; Wagner et al., 1992). They also earned between $1,500 and $4,000 more per year than youth in other disability categories, and the gap in earnings increased over time.

Youth with speech and language impairments were more likely than others to enroll in academic postsecondary education; in other regards, their level of post-school adjustment was similar to that for students with learning disabilities (Wagner et al., 1993). Halpern, Yovanoff, Doren, and Benz (1995) found disability labels of mental retardation, learning disability, or emotional disability unrelated to overall levels of participation in postsecondary education and training.

Youth with emotional disabilities were consistently less successful than youth with learning disabilities or speech and language impairments in adjusting to adult roles, although their level of community participation tended to improve over time. In contrast, levels of participation for youth with mental retardation and severe disabilities did not improve as rapidly over time, and as a result, the gap between their adjustment and the adjustment of students with other disabilities increased (Wagner et al., 1993).

Individual and Family Characteristics

Being from a racial or ethnic minority group, a low-income household, being exposed to low parental expectations, or coming from a single-parent household adversely affected post-school outcomes. Combinations of these factors were particularly damaging to achievement (Heal & Rusch, 1995; Wagner et al., 1993). Personal characteristics (e.g., gender, race, receipt of public assistance, receipt of special transportation) and home background (e.g., family structure, household income) predicted postsecondary employment for young adults with disabilities (Heal & Rusch, 1995). Ethnicity and household income were positively related to both vocational and academic postsecondary training for youth with disabilities. Parental expectations were also positively related to vocational and academic postsecondary training but congruence of parent and student expectations were not (Halpern et al., 1995; Wagner, Blackorby, Cameto, & Newman, 1993).

In estimating post-school outcomes for males with learning disabilities who had average abilities, Wagner and colleagues (1993) found that those from white, two-parent families with moderate incomes, high parental expectations, prosocial behaviors, and a

strong secondary vocational education program were likely to enroll in postsecondary vocational education (57%), were likely to be competitively employed (80%), and were generally independent in at least two of the three adult domains - engagement, residential independence, or social participation (81%). Similar youth exposed to a strong academic program in secondary school were likely to enroll in postsecondary academic education (60%), were likely to be competitively employed (74%), and were largely independent in two of the three broad outcome domains (86%). In contrast, African-American males with learning disabilities from single-parent, low-income households with moderate parental expectations, fewer prosocial behaviors, and an unfocused secondary school program were less likely to pursue either postsecondary vocational (17%) or academic education (3%), had lower rates of competitive employment (35%), and were likely to be both unengaged and residentially dependent (49%).

Educational Experiences

Youth with disabilities who took higher-level academic courses in high school were more likely to be involved in postsecondary education, independent living, and community participation (Wagner et al., 1993). Educational factors affecting enrollment in postsecondary academic and vocational education included functional achievement, successful completion of instruction in certain fields, parent and student satisfaction with secondary instruction, and parent perception that the youth no longer needed help in critical skill areas, and transition planning (Halpern et al., 1995; Wagner et al., 1993). Grade point average was related to participation in academic postsecondary programs but not vocational education (Wagner et al., 1993).

Educational experiences also affected young adults' prospects for employment. Vocational instruction was associated with higher probabilities of employment and higher wages after secondary school. Furthermore, students who took a series of related vocational classes were likely to receive substantially higher total compensation (Wagner et al., 1993). Youth with disabilities who had high math, reading, or writing skills were two to three times more likely to be competitively employed than youth with low academic skills (Benz, Yovanoff, & Doren, 1997). Benz et al. (1997) found that youth with disabilities were two to three times more likely to be competitively employed after high school if they had two or more work experiences in their last two years of high school, left school with high social skills and job search skills, and did not exhibit needs for vocational instruction one year after high school.

The more time youth spent in general education classes (controlling for other differences), the more likely they were to be engaged outside the home and to participate in their communities once out of school. However, benefits of inclusion in terms of employment and wages accrued primarily to youth with sensory or physical disabilities (Wagner et al., 1993). Dropouts with disabilities had consistently less post-school success than completers, independent of other differences between the two groups (Edgar, 1987; Hasazi et al, 1985; Porter, 1982; Wagner et al., 1993; Zigmond & Thornton, 1985). While this tended to be true for all areas of participation, levels of community involvement had an especially strong negative association with dropping out (Wagner et al., 1993).

Community Characteristics

Local economic factors also affected outcomes for young adults with disabilities. For example, Heal and Rusch (1995) found that local county income and local unemployment rates were related to employment rates for youth with disabilities.

Number and Characteristics of Declassified Students

As mentioned in Chapter 1, studies of educational outcomes for students with disabilities typically exclude those students who were in special education at one time but returned to general education through declassification. This begs the question of whether outcomes for declassified students are better than outcomes for students who remained in special education through secondary school, and the extent to which the exclusion of declassified students biases research on outcomes for students with disabilities overall.

Over the past 25 years, several follow-up and follow-along studies have estimated the rate at which special education students were declassified. Based on differences in the ages of the students, their disabilities, and the design of the studies, declassification rates have varied. Koppitz (1971) reported a declassification rate of 4.8% a year for a group of students with learning disabilities. In a study of students with disabilities in grades K-6, Walker et al. (1988) calculated a rate of 8.6% a year. Data collected from states by the U.S. Department of Education (1996) showed 4% of students with disabilities ages 14 and older returning to general education in a year. Similar figures were reported in two studies of students with disabilities in grades K-12, 7.3% and 7%, the former conducted in one intermediate unit, the latter across the state of Michigan (Carlson & Parshall, 1996; Halgren & Clarizio, 1993).

Students with speech and language impairments and learning disabilities were among those most likely to be declassified (Carlson & Gragg, 1997; Carlson & Parshall, 1996; Kane et al., 1995; USDE, 1996; Walker et al., 1988). Some studies report as many as 66% of all declassified students as having been classified with speech and language impairments (Carlson & Parshall, 1996). While one source (USDE, 1996) found students with other health impairments to be declassified at relatively high rates, this finding has not been supported by other studies (Carlson & Parshall, 1996; Walker et al., 1988). This may reflect different uses of the disability categories across states, and the relative severity of the other health impairment category in the states in which the studies were conducted. For example, students initially identified with hearing impairments, orthopedic impairments, multiple disabilities, or mental retardation were rarely declassified from special education (Carlson & Parshall, 1996; USDE, 1996; Walker et al., 1988).

The disabilities of students returning to general education through declassification also differed by age. Most students returning to general education did so from ages 8 to 11, and students with speech impairments comprised the vast majority of those returning to general education at the elementary ages (Carlson & Parshall, 1996). At the middle school ages, students with learning disabilities comprised increasing percentages of those returning to general education, whereas at high school age, students with emotional disabilities comprised a sizeable proportion of declassified youth (Carlson & Parshall, 1996, USDE, 1996).

In a Nebraska study, teachers were asked which instructional adaptations declassified students would need in postsecondary settings. They responded that 36% of

secondary-aged students would not require any instructional adaptations. However, they expected that many students would require untimed tests (24.7%) or oral testing (20.0%) (Carlson & Gragg, 1997).

Factors Affecting Rates of Declassification

It appears that declassification is not only a product of individual student performance, but is also affected by movement across educational levels and changes in local and state policy. For example, students were more likely to be declassified if they were making the transition from preschool to kindergarten, or from elementary school to secondary school (Thurlow & Ysseldyke, 1988; Walker et al., 1988). From these cases, it is not clear if there were insufficient services available to meet student needs as they progressed through the educational system, whether administrators and service providers felt students deserved a clean slate when they entered a new school, or if another explanation accounted for this phenomenon.

Variation in declassification rates from state to state also suggests that state policy or practice can affect the likelihood that students with disabilities are declassified. Annual declassification rates in 1993-94 for students 14 and older varied from 0.06% in North Dakota to 13.2% in Vermont (USDE, 1996).

Vermont's Act 230 is one example of how state policy may affect declassification. This reform initiative was intended to increase the capacity of schools to meet the needs of all students by developing a more comprehensive system of education services. After implementation of Act 230, Vermont's special education child count dropped from a high of 13,243 in 1989 to 10,804 in 1993. Some of this decline was due to reductions in the

initial identification of students with disabilities. However, many additional students were declassified from special education because they no longer required special education services; other supports were available to meet student needs within the general education system (Kane et al., 1995).

Another example of education policy and its effect on declassification came with the change in eligibility criteria for students with mild mental retardation in the 1970s. Following several court cases challenging the use of IQ tests to identify minority students as mentally retarded (Larry P. v. Riles (1984) and Diana v. State Board of Education (1970), the American Association of Mental Deficiencies (AAMD) and many states altered their definition of mental retardation, thereby reducing the overall prevalence of mental retardation in the population. As a specific remedy in the Larry P. case, all Black students in California labeled educably mentally retarded were reassessed using alternative criteria, including a higher IQ cut-off and reweighting of certain test sections. This process resulted in the declassification of between 11,000 and 14,000 students previously identified with mental retardation. States adopting the revised AAMD definition immediately made ineligible all students with IQ scores in the range of 70 to 85 (MacMillan, 1988).

Similarly, in the early 1980s, New York state altered its eligibility criteria for students with learning disabilities, adopting a more stringent discrepancy formula. In the year that followed, the number of students identified with learning disabilities decreased from 28,000 to 12,167 (Stark, 1982). The practice made ineligible a large group of

students with mild learning disabilities and, although the practice was challenged in court, it was upheld as being within the guidelines of IDEA (Kavale & Forness, 1992).

Outcomes for Declassified Students

Given the differing rates of declassification reported in the literature, and the circumstances surrounding some instances of declassification, it seems natural to explore the educational outcomes of declassified students. As one might expect, outcomes were reportedly far better in cases where declassification was tied to individual student performance, or when additional support was available to assist low-performing students within the general education program. Outcomes were less positive when widespread policy changes resulted in declassification for which teachers and students were inadequately prepared.

In a follow-up of students declassified following enactment of Vermont's Act 230, 82% of students were judged by their general and special education teachers to be successful, and grades indicated these students' academic performances were the same when they were off individual educational plans (IEPs) as when they were on them (Kane et al., 1995). Other studies of declassification support these generally positive student results (Carlson & Parshall, 1996; Koppitz, 1971).

In contrast, students with educable mental retardation who were declassified after the Diana decision in California scored significantly lower on standardized achievement tests than a sample of chronically low-achieving students who had never been identified as having a disability (Meyers, MacMillan, & Yoshida, 1975). This suggests that students previously identified as having mental retardation were in greater need of educational

support than other low-achieving students, yet once they were declassified, such support was unavailable.

In an examination of outcomes for declassified students, general education teachers and counselors in Michigan rated their declassified students by approximate grade performance, social adjustment, and behavioral adjustment. Here, declassification was based on individual circumstances, not a specific policy reform or changes in eligibility criteria. Sixteen percent of those declassified were assigned an A, 37% a B, 35% a C, 10% a D, and 2% an F. Twenty-two percent of former special education students were considered less socially well adjusted than their peers without disabilities, 65% were as well adjusted, and 14% were better adjusted. Former special education students generally had a lot of friends. Less than 2% of students were reported to have no friends and 3% were reported to have only one friend. In terms of behavior, 16% of former special education students were reportedly less well adjusted than their peers, 59% were as well adjusted, and 25% were better adjusted than their peers (Carlson & Parshall, 1996).

In the same study, to assess the extent to which the decision to declassify students and return them to full-time general education programs was valid, teachers and counselors were asked whether or not students who returned to general education programs continued to need special education services. Respondents felt 11% of declassified students required additional special education assistance. The issue of recidivism was clearly a concern, particularly given the expense associated with required assessments for determining special education eligibility. Of 2,530 students who were declassified in Michigan in 1989, 483 were subsequently enrolled in special education in

1991, 1992, or 1993. Returning to special education in the years following declassification was independent of disability classification. Of the students who returned to special education after being declassified, 41% had teachers who predicted in their one-year follow-up that they still needed special education assistance, and 242 returned to special education with a different disability classification than in their previous enrollment in special education. By far, the most common classification change was from speech and language impairments to learning disabilities (61% of those changing disability labels) (Carlson & Parshall, 1996).

One might assume that declassified students would not require adult services. However, in an assessment of projected adult service needs in Nebraska, 49% of declassified youth showed some need for adult services. The most common needs were for case management, postsecondary academic and vocational education, social skills, recreation/leisure services, and alternative education (Carlson & Gragg, 1997).

Factors Affecting Adjustment for Declassified Students

The next question of interest is what factors appear to affect the relative success of declassified students. While it appears that the circumstances of the declassification may affect student outcomes, it seems likely that other factors such as type and severity of disability, age at declassification, and length of time in special education might also play a role. In light of the scarcity of research on outcomes for declassified students, literature on postsecondary adjustment for students with disabilities and characteristics of highly successful adults with disabilities may provide some insights and hypotheses about correlates of success for declassified students.

In the study of declassified students in Michigan, grades were better for younger than for older students who were declassified. This was explained, for the most part, by the fact that students with speech and language impairments returned to general education at younger ages, and performed better academically in general education than did students with learning, physical, or emotional disabilities. The longer the declassified students were in special education, the lower respondents rated their overall academic performance in general education (Carlson & Parshall, 1996).

Students with emotional disabilities reportedly had more difficulty with social adjustment when returning to the full-time general education program than other former special education students. Declassified students with emotional disabilities were also most likely to exhibit unacceptable school behavior (Carlson & Parshall, 1996).

Many students declassified from special education in secondary school received services to address learning disabilities. Yet in recent years, the disability community has recognized that learning disabilities continue throughout adulthood, and some data suggest that learning disabilities may even become more severe in adulthood (Gerber & Reiff, 1994). Adults with learning disabilities have reported greater problems than high school seniors with learning, daily living skills, social skills, personal adjustment, and vocational adjustment. It is possible that adults perceive their learning disabilities more clearly than high school students or that adult roles are, in fact, more demanding for individuals with learning disabilities than are secondary-school roles (Minskoff, Sautter, Sheldon, Steidle, & Baker, 1988).

For individuals with learning disabilities, who may have IQ scores ranging from 70 to giftedness, IQ has been a strong predictor of academic and vocational success (Faas & D'Alonzo, 1990; Hohenshil, Levinson, & Heer, 1985; Minskoff, Hawks, Steidle, & Hoffman, 1989). IQ, special talents, psychological processing abilities, language abilities, academic achievement, psychosocial adjustment, and employability skills are considered critical in describing the severity of the learning disability. Other factors considered predictive of positive adjustment for individuals with learning disabilities include family support (Minskoff, 1994; Rawson, 1968), socioeconomic status (Minskoff, 1994), high school completion (Minskoff, 1994), and quality of academic and vocational education (Minskoff, 1994; Rawson, 1968).

Research on highly successful adults with learning disabilities has identified several critical factors. First, the driving force for success was a desire to establish control over one's life. This required making internal decisions, including a desire to succeed, being goal-oriented, and internally reframing one's learning disabilities in a more positive way. Control also required overt adjustments -- adopting strategies and techniques for dealing with one's disability, such as persistence, creativity, carefully choosing an environment that fit with individual strengths and needs, and garnering personal support (Gerber & Ginsburg, 1990).

While identifying student characteristics associated with successful educational and post-school outcomes may help untangle the threads of cause and effect, they are not among the factors educators can typically control. Identifying policies that support declassification and the successful transition of students from special education back to

full-time general education programs could be far more valuable. Two areas of special education reform, inclusion and transition planning, may offer promise in this regard.

Conclusions

Special educators may be apprehensive about declassifying students who are doing well and who may no longer require specialized services. Such hesitation may be based on the fact that, particularly at the secondary level, there are often few support services available for students outside of special education. Furthermore, declassified students may find themselves confronted with graduation requirements they are ill prepared to meet. For example, whereas most states have provisions for students enrolled in special education whereby they can meet graduation requirements by taking tests under modified conditions or by meeting the objectives set forth in their IEP, low-achieving students who are not in special education have fewer options (MacMillan, 1988). These factors may limit the rate at which special education students are declassified and may also limit the success of those who are declassified.

As part of its special education funding formula, the state of New York provides financial support to local school districts to help in the transition of students leaving special education through declassification. Services such as counseling, speech, teacher aides, or consultant services may be provided during the first year a child is declassified. Unfortunately, the funding is limited; it generated an estimated $225 per pupil in 1985 (Possin, 1986). The notion of providing financial support to assist declassified students is commendable. However, compared to the reimbursement for students in resource room

placements, which was approximately seven times that for declassification services, financial incentives may continue to weigh in on the side of special education placement.

Chapter 3: Study Design

This study used a mixed design, tapping both qualitative and quantitative methods. The quantitative portion used previously unanalyzed data from the National Longitudinal Transition Study of Special Education Students (NLTS)[2] to explore in-school (e.g., grades, high school services, graduation) and post-school outcomes (e.g., postsecondary education, employment, independent living, social adjustment) for students who were declassified from special education in secondary school. In the qualitative portion, case studies were conducted for five youth who participated in the NLTS and were declassified from special education in secondary school.

Sample

NLTS data were collected on a nationally representative sample of more than 8,000 youth with disabilities who were 13 to 21 years old in the 1985-86 school year. The sample was constructed in two stages. In the first stage, a sample of 450 school districts was randomly selected from the population of approximately 14,000 school districts serving secondary special education students. It was stratified by region of the country, district wealth, and student enrollment. Because an insufficient number of districts from the original sample agreed to participate, a replacement sample of 1,768 additional

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[2]The NLTS was conducted by SRI International under contract with the U.S. Department of Education.

districts was selected. A total of 303 school districts and 22 schools for students with sensory impairments agreed to have their students selected for study.

In the second stage, students were selected from rosters compiled by districts. Districts were instructed to include all special education students in the 1985-86 school year who were in grades seven through 12 or who were born in 1972 or before. Rosters were stratified into three age groups for each of the 11 federal disability categories; youth were randomly selected from each age/disability group so that approximately 800 to 1,000 students were selected in each disability category.

Of the 12,833 students selected for the sample, about one-third could not be reached by telephone for the parent interview. A sample of 554 nonrespondents was selected for study. Of those, 442 were located and interviewed. A comparison of respondent and nonrespondent interviews showed that the telephone sample underrepresented low-income households. The sample was reweighted to adjust for this bias.

For the case study portion of the study, seven students from the NLTS sample who were declassified from special education were selected. The declassified youth were chosen purposefully from among those who were in the youngest age cohort and originally resided in the eastern United States. They were chosen to reflect variation by disability, academic achievement, and type of community.

To draw the case study sample in a way that ensured the confidentiality of the NLTS participants, SRI extracted the names and addresses of youth who met the sample criteria, made initial contact with the sampled youth to inform them about the current

study, and requested their participation. SRI sent letters to 75 prospective case study participants requesting their cooperation in the study. Because it had been several years since families participated in the NLTS and respondents might have been apprehensive about discussing their experiences with an unfamiliar researcher, parents and students were each offered $100 as an incentive to participate in the interview. The youth were asked to return a postage-paid response card, addressed to the student investigator, if they were willing to participate. In all, 13 youth returned postcards after the first mailing. Seven were selected for the pilot test and case study sample. The others were sent a letter, thanking them for their interest, explaining that the response had been greater than expected, and indicating that their participation was not required. A College of William and Mary T-shirt was enclosed as a token of appreciation.

Eventually, two of the seven youth were dropped from the study due to difficulty in obtaining school records. In one case, the school district indicated that no records were available for the specified youth. Despite information in the NLTS data set, neither the youth nor his parents remembered him being declassified from special education. Because no verification of his declassification was available, the youth was dropped from the case study sample. A second youth participated in the interview, but failed to submit the letter authorizing the school district to release his records. After more than 10 follow- up telephone calls, he was also dropped from the study.

Instrumentation

There were several instruments used to collect data for the NLTS. In addition, other instruments were used in the case studies. In this section, each instrument is

described briefly, along with information on its use in the study.

NLTS Parent/Guardian Survey

In the summer and fall of 1987, parents of students with disabilities were interviewed by telephone. They provided information on their family background, developmental expectations for their children, youth's characteristics, experiences with special services, youth's educational attainment, employment experiences, and measures of social integration. The interviews were repeated in 1990, with youth responding instead of parents whenever possible. Researchers collected information on employment, income, living arrangements, adult services received, social adjustment, and community involvement.

NLTS School Record Abstracts

In 1986-87 and again in 1990, information was abstracted from students' school records for their most recent year in secondary school. This information included courses taken, grades achieved, educational placement, related services received, school status at the end of the year, attendance, IQ, and minimum competency test participation/results.

NLTS School Program Survey

In 1986-87, schools attended by sample youth were surveyed for information on enrollment, staffing, programs and related services offered to secondary-aged students, policies affecting special education programs and students, and community resources for children and adults with disabilities.

Case Study Parent/Student Interview Guide

In fall of 1996, seven youth with disabilities and their parents were interviewed in

person regarding the youth's in-school and post-school experiences. Interviews were conducted using semi-structured interview guides. Interview items asked parents and youth to describe and react to the youth's high school experiences, including general education, special education, and extracurricular activities. Parents and youth were asked about the youth's experiences since leaving school, including employment, post-secondary education, living arrangements, and social adjustment. Youth were also asked about their perceptions of their disability and the way it affects them in school, work, and community life. (The interview guides are included in Appendix C.)

The interview guides were pilot tested in November, 1996. Two young adults and their parents were selected from the sample to participate in the pilot test. The instrument was revised slightly following the pilot test, but data from the pilot test interviews were used in the case study analyses. Interviews lasted from 1 hour to 2.5 hours. All interviews were tape recorded with the permission of the respondents and later transcribed for analysis.

In the fall and winter of 1996, school records, including individualized education plans, and cumulative folders for students in the case studies were requested from the youth's high schools. Information from these records included courses, grades, educational placements, special education services, related services, attendance, and minimum competency test participation/results.

Data Analysis

Variables of interest for this study were extracted from the NLTS Wave 2 data tape. All analyses of the NLTS data were conducted using SPSS. Descriptive statistics,

including cross-tabulations and means, were conducted for classified and declassified youth on selected variables in the data set. Comparisons were made between students who were declassified and those who remained in special education throughout their high school careers. Chi-squares and t-tests were used to test for statistically significant differences at the $\alpha = .001$ level.

Treatment of Specific Variables

In several instances, variables in the NLTS data set were manipulated to support specific analyses for the study. SRI International used data from the Wave 1 and Wave 2 data tapes to develop a list of those students who were declassified from special education between the time the NLTS sample was drawn in 1985-86 and the 1990 data collection. Youth were defined as declassified if one of the following conditions was met. The youth was defined as declassified if, in Wave 1, the student's primary disability was coded as 0 (declassified); if, in Wave 2, the student was not receiving special education services; or if, in Wave 2, the student's primary disability was coded as declassified -- no longer receiving special education services. A dummy variable was created to indicate whether or not each youth in the Wave 2 data set was declassified. An Excel file was used to import the dummy variable into the SPSS data set containing the extracted NLTS variables.

To determine the percentage of youth who received different types of postsecondary adult services, service data were analyzed only for those youth who had graduated, dropped out of school, reached the maximum age for services, or been suspended or expelled at the time of the 1990 survey. This was done to exclude from the analyses those youth receiving services through secondary school programs.

In the mulitvariate model designed to predict high school completion for declassified youth, the variable *compst90*, which reflected youth's high school completion status in 1990, was recoded to create a dummy variable that reflected only whether or not the youth had graduated from high school in 1990. Youth who dropped out, reached the maximum age for services, or were suspended or expelled were coded 0, while those who graduated with a diploma or certificate were coded 1.

Many of the variables included in the NLTS had high levels of missing data. All the variables on which descriptive statistics were run are included in Appendix A. In cases where 30% or more of the cases were missing, a warning was included under the appendix table. In several cases, variables considered theoretically important to the multivariate models were excluded because of high levels of missing data.

Multivariate Analyses

The conceptual framework included in Chapter 4 served as a starting point for multivariate analyses used to explore factors predicting declassification and outcomes for students declassified from special education. Logistic regression was used in one of the three models. It allowed the use of categorical and continuous independent variables, and a binary dependent variable (declassification). Like multiple regression, the goal of logistic regression is to find an optimal linear function of independent variables for predicting the probability of the dependent variable. Each variable in the equation is weighted with coefficients estimated from the data ($\beta_{1...n}$) so the linear combination maximizes the predictive power of the model (Hosmer & Lemeshow, 1989).

The odds ratios generated from the logistic regression show, for each level of the independent variable, the increased probability that students were declassified relative to all levels of that variable. The odds ratios were estimated as follows:

$$\text{odds ratio} = \hat{p}/1-\hat{p} = \exp(\beta).$$

To determine differences in probability between levels of a given variable, the following formula was used:

$$\text{odds ratio} = \exp(\beta_1-\beta_2),$$

where β_1 is the coefficient for one level of a categorical variable and β_2 is the coefficient of another level of the same variable.

Forward stepwise linear regression was used in the remaining models. It is used to consider the relationships of a variety of independent variables to a continuous dependent variable. The coefficients ($\beta_{1..n}$) represent the influence of each variable, independent of the others. The R^2 statistic describes the percentage of the variance in the dependent variables explained by the model (Hosmer & Lemeshow, 1989).

Case Studies

The case studies personalized declassification by describing five students' educational experiences before and after declassification, and tracing their transition into adult roles. Both within-case and cross-case analyses were conducted on the qualitative data. Within-case analyses began with a narrative description of student experiences based on the information gathered from NLTS instruments, school records, and interviews. In cross-site analysis, attempts were made to identify clusters or families of cases, and to

confirm or refute theoretical relationships explored through the quantitative analyses (Miles & Huberman, 1994).

Chapter 4: Study Findings

This study used data from the National Longitudinal Transition Study (NLTS) and case studies of five young adults to describe students who were declassified from special education in secondary school. It explored individual, family, and school characteristics associated with declassification, as well as factors associated with outcomes for declassified youth.

Conceptual Framework

This chapter presents findings from the study's quantitative and qualitative analyses. The analyses were guided by the study questions delineated in Chapter 1 and the conceptual models presented in Figures 2 and 3.

The first model draws from previous research and theory to hypothesize about factors affecting declassification from special education. Individual and family characteristics, school context, secondary school programs and services are all considered influential in predicting declassification.

Individual and family characteristics, such as the severity of a student's disability or family wealth, may affect declassification directly. For example, it is clear from previous research that students with severe cognitive disabilities are rarely declassified. Further, more affluent families may seek private counseling or tutoring that improves student performance and facilitates declassification.

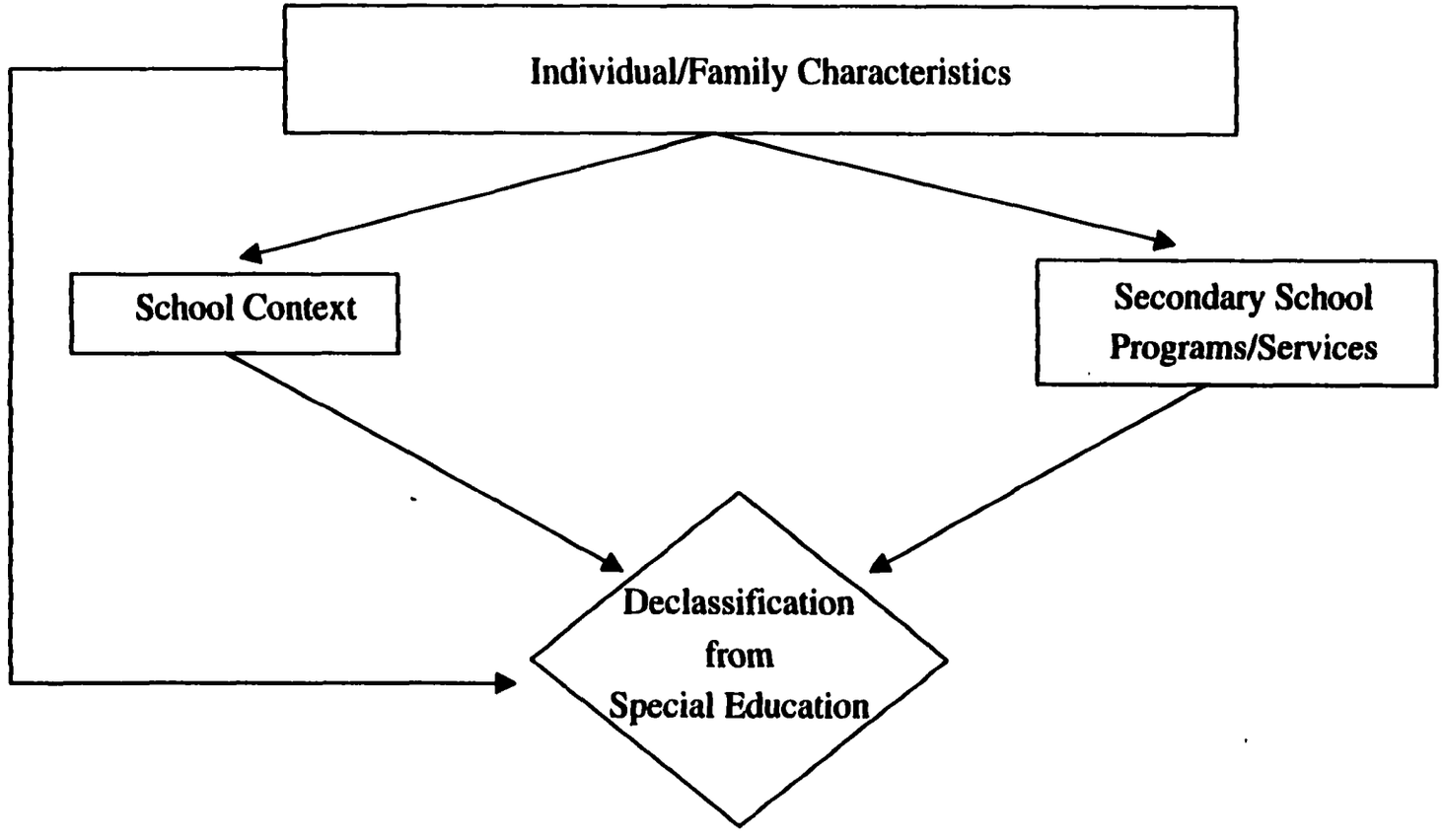

Figure 2. Conceptual framework for predicting declassification in secondary-age students with disabilities.

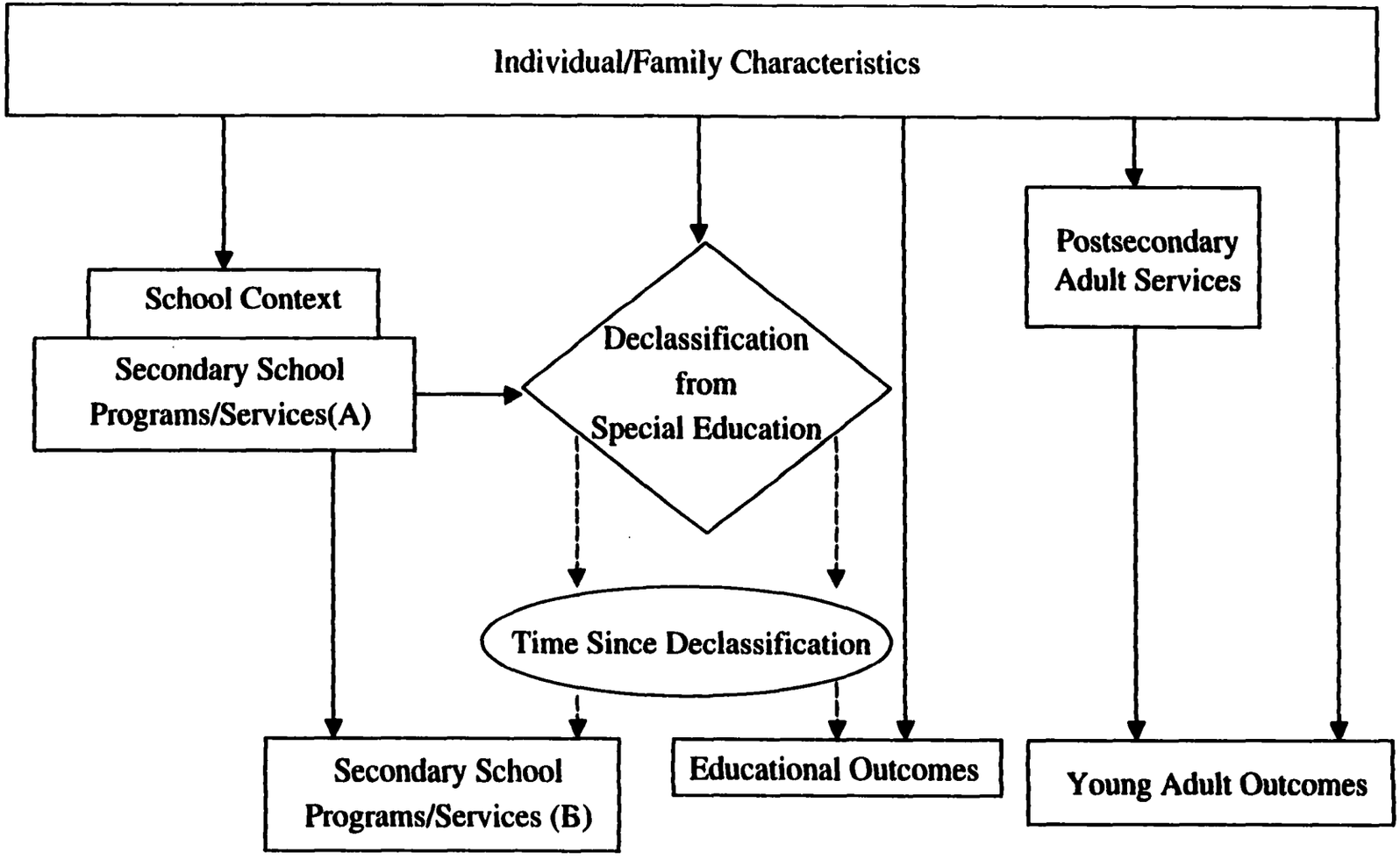

Figure 3. Conceptual framework of transition experiences and outcomes of youth with disabilities.

Individual and family characteristics may also affect the probability of declassification indirectly by altering the school context and school services. For example, parents who are better educated may be more likely to advocate for special education services that facilitate declassification. While those special education services may directly affect the probability of declassification, the parents' level of education indirectly affects declassification through its affect on the provision of services.

Similarly, school characteristics may affect declassification either directly or indirectly. Larger schools may be more likely than smaller schools to declassify youth simply because they have more experience with the declassification process. In a less direct fashion, larger schools may increase the likelihood of declassification because they offer a wider range of student support services.

By increasing the level of academic support available through general education or other educational programs, schools may reduce the need for special education programs. In this way, declassification may be directly influenced by secondary programs and services. Yet secondary school services are not developed in a vacuum. Presumably they reflect the needs, values, and resources of the students and the community, as suggested in the model.

The second model shares many components of the first. However, it goes beyond the point of declassification to explore declassification as an intervening variable affecting secondary school programs and services, as well as in-school and post-school outcomes. In this more complex model, individual and family characteristics, school context, and school programs and services are not only predictive of declassification, but also of in-

school and post-school outcomes. Declassification is an intervening variable that is influenced by individual and family factors, school context and programs, but also influences programs and services, educational outcomes, and young adult outcomes. Postsecondary adult services are added to the second model as a factor affected by individual and family characteristics, and directly influencing young adult outcomes. As an example, students' intellectual ability may affect the services they receive in school (e.g., tutoring), their likelihood of declassification, their educational outcomes (e.g., course grades), the adult services they receive (e.g., vocational education), and their adult outcomes (e.g., employment). The variables from the NLTS used to test the model presented in Figure 3 are listed in Figure 4.

The findings from the quantitative analyses of the NLTS and the case studies are presented in the order suggested by the models: (a) individual/family characteristics, (b) school context, (c) secondary school programs and services, (d) declassification, (e) educational outcomes, (f) postsecondary adult services, and (g) young adult outcomes. Once findings on individual components of the models are presented, the results of the multivariate analyses are discussed. (Supporting tables are located in Appendix A.)

Individual/Family Characteristics •disability •race/ethnicity •gender •behavior •age •family structure •household income •head of household's education •community living skills •intellectual functioning	**Secondary School Programs/Services** •occupational therapy •physical therapy •counseling •speech •tutoring •membership in school groups
School Context •% of low income students •% of students going to college •% of students going to vocational education •enrollment	**Educational Outcomes** •behavior •instructional level in math •instructional level in reading •school exit status •failing grades •social contact. •task awareness
Young Adult Outcomes •academic postsecondary courses •vocational courses •residential independence •employment -PT/FT -type of position -wages -benefits	**Postsecondary Adult Services** •counseling •vocational education •life-skills instruction •vocational rehabilitation

Figure 4. NLTS variables used to reflect components of the conceptual model.

Analysis of the quantitative data was complicated by three factors. First, declassification in secondary school is a relatively rare event. The majority of students with disabilities remain in special education from one year to the next. Consequently, efforts to predict declassification proved difficult. Second, the NLTS data set includes a very large sample, which permitted analyses not feasible with smaller data sets. Because of the large sample size, finding statistically significant differences between groups was not

difficult, even with $\alpha = .001$. In many cases, however, findings that were statistically significant had no practical importance because the magnitude of those differences was small. Throughout this chapter, efforts were made to discuss both statistical significance and practical importance. Third, the NLTS was not specifically designed to address issues of declassification. Hence, in several instances, variables critical to testing the validity of the model were not collected. In other instances, nonresponse bias limited the scope of analyses and raised questions about the validity of the results for modeling declassification.

Individual and Family Characteristics

Of those secondary-aged students who were in special education in 1985-86, 5.6% were declassified from special education by 1990 (s.d. =.229). This represents 81,460 of the 1,466,828 youth in secondary special education programs. Secondary-aged students who were declassified from special education differed somewhat from their peers who remained in special education. This section describes differences in individual and family characteristics between declassified and classified youth, in terms of disability, race/ethnicity, gender, age, socioeconomic status, intellectual functioning, and community living skills.

Disability

Students who were declassified from special education in secondary school were more likely than their classified peers to have learning disabilities, speech impairments, and emotional disabilities, and far less likely to have mental retardation and multiple disabilities, as shown in Table 1. Almost 70% of the youth who were declassified in secondary school received special education services to address learning disabilities.

However, of all secondary-aged youth with disabilities, those with speech impairments were most likely to be declassified (17.0%).

As mentioned in Chapter 1, previous studies also found students with speech and language impairments and learning disabilities most likely to be declassified (Carlson & Parshall, 1996; Kane et al., 1995; USDE, 1996; Walker et al., 1988). While one source (USDE, 1996) found students with other health impairments declassified at relatively high rates, other studies have not supported that finding (Carlson & Parshall, 1996; Walker et al., 1988), and less than 1% of the declassified youth from the NLTS had other health impairments (see Appendix A, Table A-1). In interpreting the NLTS data, which includes only secondary-aged students with disabilities, it is important to keep in mind that most students returning to general education did so from ages 8 to 11 (Carlson & Parshall, 1996).

Race/Ethnicity

Declassified youth also differed from their classified peers in ethnic background. They were more likely to be White (77.2% v. 64.4%), and less likely to be Black or Hispanic (see Table A-2).

Gender

In one respect, declassified and classified youth were quite similar; both groups had the same gender distribution. Sixty-eight percent of youth declassified from special education in secondary school were male. By comparison, 69% of classified youth were male, which is typical for secondary special education programs (Doren, Bullis, & Benz, 1996; Gillespie & Fink, 1974; Hobbs, 1975; Wagner et al., 1991). (See Table A-3).

Table 1

Primary Disability of Secondary-Aged Declassified Youth

		Declassified		Classified	
		%	N	%	N
Learning disability	Column	69.1	56,259	54.9	761,066
	Row	6.9		93.1	
Emotional disability	Column	13.3	10,864	10.4	144,281
	Row	7.0		93.0	
Speech impairment	Column	10.4	8,481	3.0	41,285
	Row	17.0		83.0	
Mental retardation	Column	5.5	4,506	25.0	345,809
	Row	1.3		98.7	
Visual impairment	Column	0.2	172	0.7	9,857
	Row	1.7		98.3	
Hard of hearing	Column	0.1	116	0.9	13,037
	Row	0.9		99.1	
Deafness	Column	-	-	0.8	11,705
	Row	-		100.0	
Orthopedic impairment	Column	0.4	315	1.3	17,526
	Row	1.8		98.2	
Other health impairment	Column	0.9	704	1.3	18,388
	Row	3.7		96.3	
Multiple disabilities	Column	0.1	43	1.6	21,941
	Row	0.2		99.8	
Deafness/blindness	Column	-	-	<0.1	472
	Row	-		100.0	

Age

Youth in the NLTS who were declassified from special education were considerably younger than their peers who remained in special education. In 1987, the mean age for declassified youth was 19.3; the mean for classified youth was 20.6 (see Table A-8). This difference is important to consider in interpreting findings on the educational and postsecondary outcomes for classified and declassified youth.

Socioeconomic Status

Compared to classified students, those who were declassified typically came from families with higher socioeconomic status. They were slightly more likely to come from two-parent families; their families had higher household incomes; and the heads of household had higher levels of education (see Tables A-9, A-10, and A-11).

The effects of parental education were well demonstrated in one case study. Reagan's father was a career military officer who reportedly had high expectations for his daughter. He apparently learned to compensate for his own reading difficulties, and seemed determined to help his daughter do the same. Reagan indicated that her father spent many hours with her throughout high school, studying and helping her with assignments. Reagan attributed much of her high school success to her father's assistance and motivation.[2]

[2]The case study narratives in Appendix B provide a detailed description of five declassified youth, including information on their level of engagement, financial and residential independence, and social adjustment.

Intellectual Functioning

In designing the NLTS, SRI International developed an intellectual ability scale. It combined ratings for how well parents believed the youth could look up telephone numbers in the phone book and use the phone without help; read and understand common signs like *Stop*; tell time on a clock with hands; and count change. Scores ranged from 1 to 16. Declassified youth scored significantly higher on the intellectual functioning scale than classified youth, 14.8 compared to 13.7 (see Table A-5).

Community Living Skills

SRI developed a similar scale to measure youth's community living skills. It combined ratings of how well youth could go to the library or community swimming pool, use public transportation, buy their own clothes, and arrange a plane or train trip. Again, declassified youth scored significantly higher than their classified peers, 15.3 out of 16 compared to 12.8 out of 16 (see Table A-6).

School Context

Secondary-aged students who were declassified from special education attended schools that differed in some respects from the schools of their peers. They were generally larger, 965 versus 863 (Table A-12) and had fewer students from low-income families (see Table 2). Declassified youth's schools also had a larger percentage of their graduating class attending academic or vocational postsecondary education (see Tables A-14 and A-15).

An example of how school context can influence individual behavior was evident in one of the case studies. Scott had several close friends in high school and many of his

friends were in honors classes. Since his friends went to college, so did Scott. When Scott was in high school, he was dating the woman he later married. "I knew she would be disappointed if I didn't go [to college]."

Table 2

Percentage of a School's Students from Low-Income Families by Declassification Status

		Declassified		Classified	
		%	N	%	N
Less than 10%	Column	27.8	18,441	18.0	116,279
	Row	13.7		86.3	
10%-25%	Column	39.4	26,120	37.7	243,674
	Row	9.7		90.3	
26-50%	Column	25.4	16,867	29.7	192,121
	Row	8.1		91.9	
>50%	Column	7.3	4,850	14.7	94,961
	Row	4.9		95.1	

Secondary School Programs and Services

The secondary school experiences of declassified youth differed considerably from those of their classified peers. By definition, declassified students stopped receiving special education services, one of those differing experiences. However, there were others. As discussed earlier, the disabilities of classified and declassified youth differed, and consequently, so did the services they received.

Special Education Services

When they were in ninth grade, 34% of declassified youth received speech therapy, 17% received tutoring, and 7% received personal counseling. In comparison, when classified youth were in ninth grade, 28% received speech therapy, 22% received tutoring, and 27% received personal counseling (see Table A-20).

Social Engagement

Research suggests that some special education students are socially isolated, and do not affiliate with their school, their classmates, or community groups (Wagner et al., 1992). Declassified youth were far more likely than their counterparts in special education to belong to a high school club or group, 81% compared to 44% (see Table A-21). Several of the youth in the case studies expressed the importance of extracurricular activities to their high school experiences. For example, Scott had a mild speech impairment, and was quite shy in school, but found he was "more confident and outgoing in baseball." Reagan felt socially isolated in high school, but had her most positive social interactions through her membership in the high school band.

Declassification

The case studies of declassified youth are the primary source of information on the process through which students were declassified from special education. Each of these youth came to be declassified from special education in a different way; their stories contribute considerably to our understanding of declassification as part of the special education eligibility process.

Reagan

When Reagan was 12 years old, test results showed she was functioning in the low-average range of intelligence. Particular weaknesses included general information, vocabulary, attention to detail, and short-term memory. The psychologist did not make a strong recommendation either for continuation or cessation of learning disability services, but services were continued based on Reagan's academic performance. By ninth grade, she received only monitoring services, and could use the resource room for support as needed. In 11th grade, Reagan initiated cessation of special education services. She indicated that, at the time, she did not require additional support, and was receiving adequate grades in her general education classes. The eligibility committee met and agreed to Reagan's request.

Kevin

Kevin was placed in a program for students with emotional disabilities and received services in a self-contained special education class. On several occasions, school personnel promised to mainstream Kevin but repeatedly reneged on that promise. "Every time I thought I was going to get out, they would pull another trick to keep me in." Kevin's behavior gradually improved and he moved to less restrictive placements. In 10th grade, he was dismissed from special education; he was doing well in his classes and was not seen as needing additional assistance. Kevin does not think that he ever actually had an emotional impairment, but wonders if he has a learning disability. "I have a hard time with abstract stuff, but anything I do with my hands; it just falls into place." "I know that

if I find out I have a learning disability, I can get longer time to take tests." "That's what I want -- to be able to relax and block everything out."

LaDonna

LaDonna received special education services to address a developmental delay. Several IQ tests administered early in her school career consistently indicated a full-scale IQ of 75. When she was in high school, LaDonna was reevaluated for special education eligibility and achieved a full-scale IQ of 81. She described her declassification this way. "They gave me this test I had to pass to get out of special classes." "After I got out of special classes, I would have different teachers for every subject." LaDonna was the only youth in the case studies who moved from a self-contained class to a general education program at the time of declassification. It is unclear whether the declassification was planned based on improved performance, whether her performance on the IQ test made her unexpectedly ineligible for services, or whether eligibility criteria for services under the developmental delay category changed.

Rosiland

Rosiland was evaluated several times for special education eligibility in elementary school, but was repeatedly found ineligible even though she had a documented hearing impairment. In middle school, she was found eligible for services. She began receiving speech therapy to help with her pitch, which was variable. Rosiland's teachers were told that she needed to sit at the front of the class so she could hear, but otherwise she did not receive any special education services.

Rosiland stopped receiving speech therapy when she started high school. Her mother reported that speech services were not offered in the high school and that is why services were discontinued; school records suggest she received special education until eleventh grade. It is not clear if Rosiland's high school teachers were offered consultation services or if her progress was monitored by special education staff. She and her mother are sure she did not receive direct services in high school. When Rosiland was in 12th grade, she was in a serious car accident. Later, a neurologist determined that, as a result of the head injury, Rosiland had a seizure disorder that caused a coma-like sleep. She was reclassified for special education under her previous disability category (i.e., hearing impairment), and received homebound services for several months.

Scott

Scott began receiving speech therapy to address an articulation problem when he was in fourth grade. He primarily had trouble pronouncing the sounds for "r" and "l." He was pulled out of his general education class two or three times per week to receive speech therapy. Scott did not have a clear recollection of when he stopped receiving speech therapy but believed it may have been when he went from elementary school to middle school. He assumed he was doing better and no longer required the services. No school records were available to verify his assumption.

These case studies illustrate a variety of circumstances under which individuals were declassified from special education. In some cases, the decision was initiated by the student rather than the school. In other cases, the transition from middle to high school seemed to play a role in the decision. In one instance, the IQ test score at a three-year

reevaluation may have spurred declassification. Very few of the case study participants remembered the process through which they or their children were declassified from special education. Furthermore, because the study was conducted nine to 12 years after these individuals were declassified, access to school records documenting the process of declassification was limited.

Educational Outcomes

Several measures were used to assess educational outcomes for declassified youth. These included percentage of failing grades, classroom behavior, and high school completion.

Failing Grades

Declassified youth had slightly fewer failing grades overall than their classified peers. Declassified youth failed 13.2% of their graded classes while youth who remained in special education failed 15.5% of graded classes (see Table A-22).

Classroom Behavior

As part of the NLTS, teachers were asked to rate students' behavior in academic general education classes. Surprisingly, students declassified from special education had worse classroom behavior than their classified peers. Specifically, teachers indicated that 5% of declassified youth did not behave well; 19% had mixed behavior; 26% behaved fairly well; 10% behaved well, 9% pretty well; and 31% very well (see Table A-24).

Kevin is a good example of a declassified youth who exhibited problems controlling his behavior. In elementary school, Kevin could not sit still in class; he talked at inappropriate times, made noise, and talked out of turn. Kevin's doctor prescribed

Ritalin to treat what was diagnosed as hyperactivity. The Ritalin calmed Kevin for about eight hours; after it wore off, he would be "wild." In middle school, Kevin was described as lacking motivation and interest in school. He had trouble sitting still, and frequently disrupted class.

High School Completion

Declassified youth were more likely to complete high school than their classified peers. In 1990, 79% of declassified youth had completed high school compared to 62% of classified youth. Twenty percent of declassified youth had dropped out of school and 1% had reached the maximum age for services (see Table A-33).

Postsecondary Adult Services

Some individuals with disabilities receive services after they leave high school. These services may be provided by public or private agencies, or individuals. In 1990, 20% of declassified youth who were out of secondary school received career counseling, job assistance, job skills training, or vocational education. Nine percent received aid from a tutor, reader, or interpreter, and 6% received life-skills training or occupational therapy. Three percent received personal counseling or therapy, and fewer than 1% received speech or language therapy, physical therapy, mobility training, or other help with physical disabilities. Declassified youth were more likely than classified youth to receive vocational education and tutoring, but less likely to receive other types of support (see Table A-46). These differences may reflect the types of disabilities common to declassified youth (e.g., learning disabilities) or declassified youths' higher rate of enrollment in postsecondary education. Many colleges, universities, and technical training programs offer support for

students with disabilities, which may have been a source of assistance unavailable to youth not pursuing postsecondary academic or vocational education.

Young Adult Outcomes

The NLTS examined outcomes for youth with disabilities in three domains: engagement in work, school, or vocational education; social adjustment; and residential independence. Overall, in the years immediately after leaving high school, youth who were declassified from special education had better outcomes than youth who remained in special education. For example, in 1990, fewer than 1% of declassified youth reported being socially isolated, meaning they saw friends less than once a week. This compares with 9.6% of classified youth (see Table A-78).

Employment

In the years immediately after high school, youth with disabilities who remained in special education were more likely to be competitively employed (48% versus 42%) and typically worked more hours (34 hours/week compared to 29 hours/week) (see Tables A-55 and A-47). In 1990, many of the declassified youth who were employed worked in food service (41%); clerical positions (33%); or professional, management, or sales positions (17%). Students who remained in special education through secondary school were more likely to work in labor (24%), operations (19%), food service (15%), or crafts (14%) (see Table A-63).

Postsecondary Education

In 1990, nearly 60% of declassified youth had been enrolled in postsecondary education since high school compared to 27% of classified youth (see Table A-49). As a

result, they may have taken lower-paying, part-time jobs common to college students. Differences in employment patterns for classified and declassified youth may reflect the higher rate of enrollment in postsecondary education for declassified youth.

Independent Living

By 1990, declassified youth were only slightly more likely than youth who remained in special education to live independently, 32.2% compared to 27.8% (see Table A-58). This may also reflect their continued enrollment in postsecondary school.

Scott's experience provides a good example of the relationship between residential dependence, employment, and postsecondary enrollment noted in the quantitative analyses. When he graduated from high school, Scott attended Ohio State University, kept his job at the local supermarket, and continued to live at home. He had some student loans and worked 35 to 40 hours per week to pay for the subsequent quarter's tuition. Once or twice he did not have enough money to pay his tuition, so he took fewer classes or took the quarter off. It took him just over five years to finish his degree. He now holds a position as a buyer with the same supermarket chain.

Life Skills

The NLTS also collected information on various life skills important to independence for individuals with disabilities, such as registering to vote, holding a driver's license, having a personal checking or savings account, and having a credit card (see Table 3). Declassified youth were more likely than classified youth to have a license, savings account, and credit card, and to be registered to vote, but less likely to have a checking account.

Profiles

In order to get a composite measure of the postsecondary adjustment of students with disabilities, SRI developed youth profiles that combined information on individual engagement in work, school, or job training; independent living; and social involvement. Overall, youth who were declassified from special education were more independent than their peers (see Table 4). In 1990, 24% were independent in all three domains and 60% were independent in two of three domains. Three percent were either active or living independently but were not socially active; 6% were active in work or school but not residentially independent, and 7% were not active in work or school and were not residentially independent. None of the declassified youth were institutionalized.

Table 3

Life Skills of Classified and Declassified Youth with Disabilities

	Declassified		Classified	
	%	N	%	N
Has a driver's license	70.4	9,528	55.6	100,065
Registered to vote	52.6	7,285	46.2	79,810
Has a savings account	70.0	6,634	45.1	70,244
Has a checking account	19.6	1,856	29.9	47,403
Has a credit card or charge account	50.9	4,825	21.7	34,400

Comparing the 1987 profiles with the 1990 profiles suggests that slightly fewer declassified youth were independent in all three domains in 1990 than in 1987, but far more youth were independent in two of the three domains. In the years from 1987 to

1990, many classified youth gained in independence, but, as a group, continued to lag behind declassified youth on these measures. The profiles for declassified youth varied by gender and disability. Males were slightly more likely than females to be independent in all three domains (26% compared to 20%), but males were also more likely than females to be dependent (e.g., living in a group home for youth with disabilities) (see Table A-84).

In 1990, 23% of declassified youth with learning disabilities were engaged in work, school, or job training; lived independently; and were socially involved. An additional 62% were independent in two of three domains. Almost as many youth with emotional disabilities were independent in two (41%) or three domains (24%) but an additional 24% of these youth were neither active nor living independently. The vast majority of declassified youth with speech impairments and mental retardation were independent in either two (30% and 31%, respectively) or three domains (58% and 69%, respectively) (see Table A-85).

Reagan. The case studies provide descriptive examples of outcomes for declassified youth. Reagan finished high school with a 2.6 grade point average and passed the Virginia minimum competency test. She had a part-time job as a cake decorator for several years while she attended a local community college. She did well on the job but received poor grades in her classes, and eventually failed out. Reagan later enrolled in a dental assistance program, where she did well. After her job training, Reagan was hired by a local dental practice where she worked for three years.

Table 4

Profile for Classified and Declassified Youth in 1987 and 1990

	Declassified				Classified			
	1987		1990		1987		1990	
	%	N	%	N	%	N	%	N
Active, living independently, and socially involved	26.9	899	24.2	11,973	6.2	115,959	18.7	139,489
Independent in two of three domains	12.5	8,967	59.6	29,417	34.4	88,573	42.0	314,073
Either active or living independently, and not socially involved	25.9	864	3.5	1,722	16.4	42,232	8.0	60,128
Active but not independent	14.9	498	6.1	2,994	20.2	52,127	9.9	74,294
Not active or independent	19.9	665	6.7	3,285	21.6	55,698	19.0	141,700
Institutionalized	-	-	-	-	1.1	2,940	2.4	18,017

Reagan decided to pursue further training as a dental hygienist, but failed to pass the entrance test for the dental hygiene program on two different occasions. She took a second position as a dental assistant, but quit because she did not like the dentist. The third dental position was also problematic; Reagan lost the job when the dentist discovered that she was not a certified hygienist. Reagan left her fourth position after six months to take a position with a dentist she met at her health club. She was fired after two weeks for being too slow. On last report, she was working packaging tortillas in a factory, taking business classes, and reconsidering her career options.

Kevin. Kevin received his high school diploma in 1989 with a 74 grade point average. He worked briefly in an automobile transmission repair shop; worked as a manager in an auto parts store; and then enlisted in the Air Force where he remained for four years. Kevin received several awards and promotions during his four years of service and enjoyed an active social life. During his enlistment, Kevin enrolled in a community college in Wyoming, where he was stationed. He later moved back home and enrolled at a local community college. Last year, Kevin transferred to a large state university. Academics continue to be a struggle for Kevin. He has a hard time applying himself to his studies. Kevin says he has difficulty comprehending what he reads for class, his attention span is very short, and he has difficulty taking tests.

LaDonna. After being declassified from special education, LaDonna received one C, one D, and 16 Fs before becoming pregnant and dropping out of school. She continued to live with her mother, and began collecting Aid to Families with Dependent Children. She stayed on welfare for a few years; she continues to receive medical

insurance for her children, but no longer receives income support. After the birth of her second child, LaDonna took classes to prepare for her GED, but never took the test. LaDonna had a few jobs shortly after she left school -- one recycling cans, another selling sheets and tablecloths in a retail store. LaDonna worked at a toy factory for three years. She earned $5.75 per hour and received benefits. The factory closed, and she was unemployed for a year. Currently LaDonna works three days a week, eight hours per day in the kitchen of a nursing home. She has five children.

Rosiland. Rosiland graduated from high school with a 1.8 grade point average. After high school, Rosiland continued to live at home with her mother, and took a full-time job at the Epcot Center. She supplemented her income with part-time jobs at a shoe store and a department store. During her breaks at the Epcot Center, Rosiland would fall asleep and have trouble waking up. She began having severe headaches and would go into deep, coma-like sleeps. A neurologist determined that Rosiland had a seizure disorder. In 1995, Rosiland took a nail technician's class but was unable to complete the course because of her health problems. Rosiland recently worked at a local middle school as an aide in the special education program. She was forced to leave the job after about a month because of her seizure disorder. The position with the school district allowed Rosiland to have her own apartment for the first time. After she was forced to quit her job, the apartment became financially unfeasible, and she moved back in with her mother. Rosiland applied for social security, but was denied. Several months ago, she reapplied and is awaiting a determination on her case.

Scott. Scott graduated from high school with a 2.5 grade point average, and attended Ohio State University. He kept his high school job at a local supermarket, and continued to live at home. He worked 35 to 40 hours per week to pay for the subsequent quarter's tuition. While he had some difficulty motivating himself to complete his school work in his first year of college, Scott finished his bachelor's degree in five years. In his junior year in college, Scott married his high school sweetheart, and they now have a two-year-old daughter. Scott works in the supermarket's administrative office as a reorder buyer earning $23,900 per year.

Multivariate Analyses

The first multivariate analysis was designed to predict declassification from special education using individual and family characteristics (i.e., disability, sex, race/ethnicity, family income, head of household's education level, and family structure) and school context (school enrollment, percentage of students from low-income families, percentage of students pursuing postsecondary academic education, and percentage of students pursuing postsecondary vocational education). The conceptual model for this analysis is depicted in Figure 2.

The model predicted declassification correctly 91.2% of the time. Specifically, it was highly successful in predicting which students would remain in special education (99.6% correct predictions) but was highly unsuccessful in identifying the students who were declassified (6.6% correct predictions). While the entire model was statistically significant based on a chi-square, better results would have been achieved by predicting against declassification in every instance, since only 5.6% of youth were declassified

(94.4% correct predictions). Consequently, from a practical perspective, the overall model was unsuccessful in predicting declassification from special education for secondary-aged youth based on the independent variables used.

Several analyses were conducted to ensure that the model's inability to better predict declassification was not due to statistical methods or missing values. Discriminant analysis was used to determine whether or not the classified and declassified youth could be statistically distinguished on the continuous variables used in the logistic regression model. It generated an Eigenvalue of .0077 suggesting that differences between the two groups could not be identified.

A correlation matrix was generated to assess the possibility that multicolinearity interfered with the model's performance. All the dependent variables in the model were included. The highest correlations were between the percentage of a school's students attending college and the percentage of students from low-income families (-.477), household income and head of household's level of education (.429), and family structure and household income (.401). Most of the other correlations were low (<.1). Based on this analysis, collinearity was not considered a threat to the model. As stated previously, declassification is a relatively rare event for secondary-aged students (5.6%). This likely contributed to difficulty in predicting declassification.

Despite the logistic regression model's overall limitations in predicting declassification based on the measures available from the NLTS, the model provided some valuable information about the probability of declassification for different groups of youth. The odds ratios show, for each level of the independent variable, the increased probability

that the youth was declassified in secondary school. For example, females were 11% more likely to be declassified than males when all other variables in the model were held constant (see Table 5).

Only five of the disabilities -- emotional disability, speech impairment, mental retardation, orthopedic impairment, and multiple disabilities -- were significant in the model. Youth with emotional disabilities were 8.3 times more likely than youth with all disabilities to be declassified, and youth with speech impairments were 27.3 times more likely than all youth with disabilities and 3.3 times more likely than youth with emotional disabilities to be declassified.[3]

Race/ethnicity and family structure were also significant variables in the model. White youth were 1.97 times more likely than Black youth to be declassified when all other factors in the model were held constant, and youth from one-parent families were 50% more likely than youth from two-parent families to be declassified.

School enrollment was a continuous variable in the model. The odds ratio was 1.0002, which means the probability that a youth was declassified increased by .02% for each additional student enrolled in the school. The percentage of a school's students attending trade/vocational school was also significant. The odds ratio for this variable was .9786 meaning for each percentage of a school's youth attending vocational or trade school, the probability of declassification decreased by 2.1% when all other variables were held constant.

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[3]The odds ratios for variables with three or more levels estimate the likelihood of declassification relative to the overall effect.

While household income was a significant variable overall, the relationships between income and declassification were not monotone, meaning declassification did not consistently increase or decrease with household income. The results for head of household's education were similarly difficult to interpret.

The second multivariate analysis was used to predict the percentage of failing grades that youth received. It used the same individual and family characteristics and school context variables specified in the first model. The model was significant. However, it predicted only 21% of the variance in failing grades received. All the variables in the model were significant, but the effect sizes were small. The percentage of a school's students from low income families, gender, and school enrollment had the largest effect sizes (see Table 6).

The final model was designed to predict adult outcomes for declassified youth using the individual and family characteristics and school context variables specified previously and educational outcomes (i.e., percentage of failing grades and high school completion). The dependent variable was the youths' profiles for 1990, an aggregate variable generated by SRI to combine engagement in work or school, residential independence, and social engagement. The model was significant and reasonably predictive of the youth's profiles, accounting for 50% of the variance in profiles. All variables were significant at the $p<.01$ level; head of household's education was excluded from the model. The percentage of failing grades the youth received in secondary school, race/ethnicity, disability, and household income had the largest effect sizes (see Table 7).

Table 5

Summary of Logistic Regression Analysis for Predicting Declassification (n=285,092)

Variable	B	SE B	Odds Ratio
Disability			
learning disability	2.0480	.5017	7.7523
emotional disability	2.1153	.5019*	8.2924
speech impairment	3.3057	.5022*	27.2683
mental retardation	.6516	.5021*	1.9186
visual impairment	-.5535	.5404	.5749
hard of hearing	-.1856	.5165	.8306
deaf	-3.6730	1.0379	.0254
orthopedic impairment	.5317	.5084*	1.7018
other health impairment	1.8939	.5042	6.6452
multiple disabilities	-2.8436	.6566*	.0582
deaf/blind	-3.2905	0.00*	.0372
Gender			
male	-.1086	.0080*	.8971
female	.1086	0.00*	1.1147
Race/ethnicity			
Black	1.1603	.3778*	3.1910
White	1.8392	.3776*	6.2915
Hispanic	.0064	.3794	1.0065
American Indian/Alaskan native	4.9970	.3795*	147.9682
Asian or Pacific Islander	-4.3023	1.5632*	.0135
Other	-3.7006	0.00*	.0247
Household income			
<12,000	.1272	.2489	1.1356
$12,000 but less than $20,000	.1786	.2489	1.1956
$20,000 to $24,999	1.7795	.2488*	5.9271
under $25,000, unspecified	1.1650	.2518*	3.2058
$25,000 but less than $38,000	.3099	.2489	1.3632
$38,000 to $50,000	.4513	.2493	1.5704
over $50,000	.6443	.2501	1.9047
$25,000 and over, unspecified	-4.6558	0.00*	.0095

Disability			
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emotional disability	2.1153	.5019*	8.2924
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mental retardation	.6516	.5021*	1.9186
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orthopedic impairment	.5317	.5084*	1.7018
other health impairment	1.8939	.5042	6.6452
multiple disabilities	-2.8436	.6566*	.0582
deaf/blind	-3.2905	0.00*	.0372
Head of household's education level			
11th grade or less	.0491	.0192	1.0503
high school diploma	-.3138	.0185*	.7306
some college	-.2043	.0227*	.8152
2-year college degree	.8891	.0262	2.4330
4-year college degree	.1297	.0280	1.1385
some graduate work	1.5337	.0434	4.6351
graduate degree	-2.0835	0.00*	.1245
Family structure			
one-parent	.4064	.0083*	1.5014
two-parent	-.4064	0.00*	.6660
School enrollment	.0002	1.021 E-05*	1.0002
% school's students from low-income families			
less than 10%			
10% to 25%	-.0108	.0158	.9892
26% to 50%	.1380	.0116*	1.1480
over 50%	-.0957	.0130*	.9088
	.0315	0.00*	1.0136
% school's students attending college**			
% school's students attending trade/vocational school	-.0216	.0007*	.9786
Constant	-6.1666	.6753*	

Note. χ^2=29448.74.
*$p < .01$.
**Excluded from model.

Table 6

Summary of Linear Regression Analysis for Predicting the Percentage of Failing Grades for Declassified Youth (n=76,697)

Variable	B	SE B	*B*
Block 1			
Disability	.828	.050	.095*
Gender	-5.730	.166	-.221*
Race/ethnicity	-2.331	.120	-.121*
Household income	-.483	.044	-.075*
Head of household's education level	-1.460	.054	-.172*
Family structure	3.122	.158	.129*
Block 2			
School enrollment	4.2 E-03	.000	.210*
% students from low-income families	-3.244	.101	-.242*
% students attending college	6.5E-02	.005	.108*
% students attending trade/vocational school	.228	.009	.168*
Constant	18.091	.662	

Note. $R^2 = .212$.
*$p < .01$.

Youth who failed more classes were less likely to be active, independent, and socially engaged. Youth from families with higher incomes exhibited greater levels of adult independence. Interpreting the effect size for disability is difficult given that it was an unranked categorical variable and no measure of severity was used. The model suggests that students with learning disabilities, emotional disabilities, and speech

impairments (i.e., those coded 1, 2, and 3) had better profiles than those with other health impairments, multiple disabilities, and deaf/blindness (i.e., those coded 9, 10, and 11).

Table 7

Summary of Linear Regression Analysis for Predicting 1990 Profiles for Declassified Youth

Variable	B	SE B	*B*
Disability	.428	.008	.413*
Gender	.209	.023	.096*
Race/ethnicity	-.712	.0	-.121*
Household income	-.147	.019	-.450*
Head of household's education level	-.230	.004	-.424*
Family structure	-.599	.019	-.297*
School enrollment	-1.6E-04	0.00	-.107*
% students from low-income families	-.179	.016	-.169*
% students attending college	4.3E-03	.001	.092*
% students attending trade/vocational school	-3.3E-02	.001	.292*
%failing grades	4.7E-02	.001	.555*
High school completion status	-9.8E-02	.022	-.057*
Constant	5.398	.098	

Note. $R^2 = .501$.
*$p < .01$.

Summary of Findings

The first study question was, *What were the characteristics and educational experiences of youth who were declassified from special education in secondary school?* The 81,460 youth with disabilities who were declassified from special education in secondary school differed slightly from youth who remained in special education on a

number of variables, including disability, race/ethnicity, socioeconomic status, and intellectual functioning. They were more likely to have learning disabilities, speech impairments, or emotional disabilities, came from families with higher incomes, and had better educated parents.

Declassified youth also attended schools that differed in some respects from the schools of classified youth. Typically, declassified youths' schools were larger, had fewer low-income families, and had more of their graduates enrolled in postsecondary academic or vocational education.

Declassified youth were more likely than classified youth to have received speech therapy in ninth grade, but were less likely to have received tutoring or counseling. They were also far more likely than their peers who remained in special education to belong to a school or community group.

Based on the experiences of five young adults, the process of declassification appeared highly individualized. In one case, the youth requested declassification. In two cases, the transition from middle school to high school seemed to play a role in discontinuing services. In yet another instance, an IQ score at a three-year reevaluation seemed to have instigated declassification.

The second study question was, *How do outcomes for declassified youth compare with outcomes for youth who remained in special education throughout secondary school?* On average, declassified youth received slightly fewer failing grades than their classified peers and they were more likely than youth in special education to complete high school. In the years immediately after high school, youth who were declassified from special education were significantly more likely than their classified peers to enroll in

postsecondary academic or vocational education, and were less likely to be employed or to be employed full time. Declassified youth were more likely than classified youth to live at home with their parents. They were more likely to have a driver's license, credit card, and savings account, but less likely to have a checking account. Declassified youth were also more likely than classified youth to receive vocational education and tutoring as adults. Youth profiles indicate that, overall, declassified youth were more independent than their peers who remained in special education.

The third study question was, *What variables seemed to account for variation in outcomes among declassified youth?* Both gender and disability were related to outcomes for declassified youth. Males were slightly more likely than females to be independent in all three domains, but males were also more likely than females to be inactive and residentially dependent. Declassified youth with learning disabilities, speech impairments, and mental retardation were likely to be independent in two or three of the domains, that is, engaged in work, school, or job training; living independently; and socially involved. Almost as many youth with emotional disabilities were independent in two or three domains, but almost one-fourth of these youth were neither active nor living independently.

Despite the differences between classified and declassified youth, the multivariate model was unable to predict declassification well based on individual and family characteristics and school context. The model for predicting profiles for declassified youth was fairly effective. It explained 50% of the variance in profiles based on individual and family characteristics, school context, and educational outcomes. In that model, the

percentage of failing grades the youth received in secondary school, race/ethnicity, disability, and household income had the largest effect sizes in predicting youth profiles.

The final study question was, *To what extent are reported outcome data biased by the exclusion of students who were declassified before leaving secondary school?* Because declassification is relatively rare, particularly among secondary-aged students, outcomes for declassified youth would have to be markedly different from outcomes for youth who remained in special education to bias the results of outcome studies based on their omission. That was not the case. While declassified youth were significantly different from youth who remained in special education on a wide range of variables, typically the differences were small. The combination of small effect sizes and a small proportion of declassified youth limited any bias.

Chapter 5: Implications

This study explored declassification from special education through analysis of data from the NLTS and case studies of declassified youth. This chapter discusses the study's findings in light of previous research; notes limitations of the study; outlines implications for future research, policy, and practice; and summarizes the study's purpose, methods, and findings.

Discussion of Study Findings

This section discusses the findings of the study. It addresses declassified youth's individual and family characteristics, their educational experiences, the declassification process, their in-school and post-school outcomes, factors associated with those outcomes, and possible bias associated with omitting declassified youth from outcome studies.

Characteristics of Declassified Youth

Declassified youth differed from their peers who remained in special education in a number of ways, including family characteristics, disability, and level of functioning. This section discusses findings on the differences in characteristics of classified and declassified youth.

Family characteristics. Declassified youth were slightly more likely than classified youth to be White, to come from two-parent families, to have higher household incomes, and to have parents with higher levels of education. There are several possible

explanations for the association between family background and declassification. More affluent families may be more likely to secure private support services for their children, such as tutoring or counseling. Better educated families may be more skilled in helping their children with homework assignments and may be more effective advocates in securing appropriate services. They may also have higher educational expectations for their children, motivating youth to excel in academics despite their disabilities.

Disability. Previous research indicates that students with learning disabilities comprise the largest percentage of declassified youth in middle and high school, and students with emotional disabilities comprise a sizeable proportion of those declassified in high school (Carlson & Parshall, 1996; USDE, 1996). This study produced similar findings. Of youth declassified from special education, 69% had learning disabilities, 13% had emotional disabilities, and 10% had speech impairments. In part, this reflects the large number of students with learning disabilities relative to the number with other disabilities. In fact, students with speech impairments were most likely to be declassified (17.0%), followed by students with emotional disabilities (7.0%) and students with learning disabilities (6.9%). The high rate of declassification for students with speech impairments likely reflects the prevalence of childhood articulation disorders. Frequently these disorders improve through maturation or speech therapy and, in many cases, may not suggest limitations in cognitive or behavioral functioning.

This study did not support the U.S. Department of Education (1996) finding that students with other health impairments are declassified at relatively high rates. Fewer than 4% of youth with other health impairments were declassified, compared to 5.6% of all youth with disabilities. In 1991, the U.S. Department of Education published a policy

letter indicating that students with attention deficit disorder who are eligible for special education services may receive services under the other health impairment category. This category is now composed largely of students with attention deficit disorder (USDE, 1997). The NLTS sample was drawn in 1985, before the dramatic rise in the diagnoses of attention deficit disorder. Consequently, the characteristics of students with other health impairments in the NLTS sample and those in the U.S. Department of Education report may differ, resulting in different rates of declassification.

Information from the case studies provided additional insights into the disabilities of declassified youth. Several of the case study participants did not believe they ever had disabilities. LaDonna, for example, who received services for developmental delays until high school, was not sure why she received special education. "Back in elementary, . . . they had special classes, but I didn't think I really needed to be in them . . . I don't know why they put me in them. . . I remember when I was in special classes, I came in second in a spelling bee, even though I was in special classes."

Kevin did not believe he had a disability either and, even now, resents his special education placement. His mother said, "Kevin insists to this day that I did not fight hard enough to keep him out [of special education]." She said she felt pressured into the special education placement by the authority and expertise of school officials.

Reagan believed she had a learning disability, but viewed its effects very narrowly. She recognized that she had trouble remembering what she read, and believed that if she read more quickly, she was more likely to retain material. She did not attribute to her learning disability difficulty in maintaining jobs or succeeding in school.

Rosiland recognized that she had a hearing impairment and a seizure disorder. If she was driving in the car, she had trouble hearing what passengers said. She had to put the telephone to her left ear, and sometimes could not hear it ring if she was listening to the radio or watching television. She set the volume on the television somewhat higher than the average person would. With regard to her seizures, Rosiland said "I can go and work and do well for so long, and then have another [seizure]." "People don't want you on the job if you have to take time off like that."

In describing his speech impairment, Scott said ". . . [My] R's only seem to bother me when I really think about it too much." Scott's parents sometimes had difficulty understanding him on the telephone if he spoke too quickly; his mother said he had a tendency to "swallow his words." Scott attributed his shyness to his speech impairment. He believed he had been hesitant to speak out in classes because of his articulation problems.

Level of functioning. Overall, declassified youth functioned at a higher level than youth in special education. On a scale of intellectual functioning, declassified youth scored significantly higher than their peers who remained in special education (14.8 out of 16 compared to 13.7 out of 16). Declassified youth were also rated higher in community living skills than classified youth, 15.3 out of 16 compared to 12.8 out of 16. It is not clear how youth without disabilities would score on such scales.

Declassified youths' high scores on ratings of intellectual functioning and community living may reflect the types of disabilities common to declassified youth; few had mental retardation, multiple disabilities, or sensory impairments. The scores may also reflect the severity of their disabilities. Many declassified youth may barely have qualified

for services under special education eligibility criteria, suggesting that, from the point of identification, they were among the highest functioning students found eligible.

Educational Experiences of Declassified Youth

The schools declassified youth attended and the services they received also differed from those of classified youth. The secondary schools attended by declassified youth had lower rates of poverty, a larger percentage of their students enrolling in postsecondary vocational or academic courses, and larger enrollments. Schools in the lowest poverty category (less than 10% of students in poverty) had a mean declassification rate of 13.7%, compared to 5.6% overall. It is not clear precisely why larger, higher-income schools are more likely to declassify students with disabilities. These schools may have more educational support available in general education classes, better special education programs, more effective remedial programs, or more community resources available to assist students. Despite these patterns, school-level variables had very small effect sizes in the multivariate models for predicting declassification.

Only limited data were available from the NLTS on the services declassified youth received in secondary school. In ninth grade, 34% of declassified youth received speech therapy, 17% received tutoring, and 7% received personal counseling. These services correspond with the disabilities common to declassified youth -- learning disabilities, speech impairments, and emotional disabilities.

The Declassification Process

The case studies provided valuable information on the circumstances under which secondary-age students were declassified from special education. Each case was somewhat unique, but several supported findings from previous research. Thurlow and

Ysseldyke (1988) and Walker and colleagues (1988) reported that students are more likely to be declassified as they make the transition from preschool to kindergarten, or from elementary school to secondary school. Two examples from the case studies supported the hypothesis that declassification is affected by movement across educational levels. In middle school, Rosiland received speech services to help with her pitch, but stopped receiving speech therapy when she started high school. Her mother claimed speech services were not offered in the high school, and cited that as the reason why services were discontinued. School records suggest Rosiland received special education until 11th grade. It is possible that Rosiland's teachers received consultation services after direct services were discontinued, or that special educators monitored Rosiland's progress.

Scott was also declassified when he changed schools. In fourth grade, he began receiving speech therapy to address an articulation problem. He was pulled out of his general education class two or three times per week to receive speech therapy. Scott stopped receiving speech therapy when he went from elementary school to middle school. He assumed he was doing better and no longer required services.

Previous research also suggests that state policy or practice affects the likelihood of declassification (Kane et al., 1995; MacMillan, 1988). In the 1980s, many states altered their definition of mental retardation and, as a result, reduced the overall prevalence of mental retardation. It is unclear if such a definitional change was the basis for LaDonna's declassification. School records showed that LaDonna repeatedly scored 75 on full-scale IQ tests. When she was 14, LaDonna was retested and scored 81. She was declassified shortly thereafter. With a full-scale IQ of 75 to 81, even under a very inclusive definition of mental retardation, LaDonna would have been on the borderline of eligibility.

One multivariate model was designed to predict declassification from special education using individual and family characteristics, and school context. On a practical level, the model was unsuccessful in predicting declassification for secondary-age youth based on the independent variables selected, despite its statistical significance. The model correctly predicted declassification in 91.2% of the cases. Predicting against declassification in every case would have resulted in correct predictions in 94.4% of cases, since only 5.6% of youth were declassified. Despite its limitations, the model provided valuable insights into the probability of declassification for different groups of youth. For example, youth with speech impairments were far more likely than youth with any other disability to be declassified from special education. In fact, they were 3.3 times more likely than youth with emotional disabilities to be declassified. Females were 11% more likely than males to be declassified, and White youth were almost twice as likely as Black youth to be declassified, controlling for other factors.

Youth from single-parent families were more likely to be declassified than youth from two-parent families. It is not clear why this was the case. It is possible that the negative influences commonly associated with single-parent families were controlled by other variables in the model -- household income and head of household's education. Some characteristics of the schools youth attended were significant in the model, but their effects were fairly small. As school enrollment increased, the probability of declassification also increased. The greater the percentage of a school's students attending trade or vocational school, the smaller the likelihood of declassification from special education.

A graphic description of the declassification process and its implications are presented in Figure 5. Based on eligibility criteria established by the state and operationalized by local school districts, students may be correctly or incorrectly found eligible, or correctly or incorrectly found ineligible ($Eligibility_1$). Those found eligible receive special education services and, at least every three years, are reevaluated for eligibility ($Eligibility_2$). Once again, according to established criteria, students may correctly or incorrectly be found eligible, or correctly or incorrectly found ineligible.

Civil rights and educational and programmatic concerns rest with the correctness of these eligibility decisions. Eligible students have a right to services under IDEA, and denial of such services represents a violation of those civil rights. Students incorrectly found eligible may receive unnecessary services, which, at a minimum, reflects an inappropriate use of special education funds. By following the flow chart in Figure 5, one sees that declassification reflects one of two scenarios. First, the initial eligibility determination may have been appropriate, suggesting that the youth's educational performance improved between the first and second eligibility meetings. Second, the initial eligibility determination may have been inappropriate, and declassification served to correct the previously erroneous decision. The legend in Figure 5 outlines the implications of each possible combination of eligibility decisions.

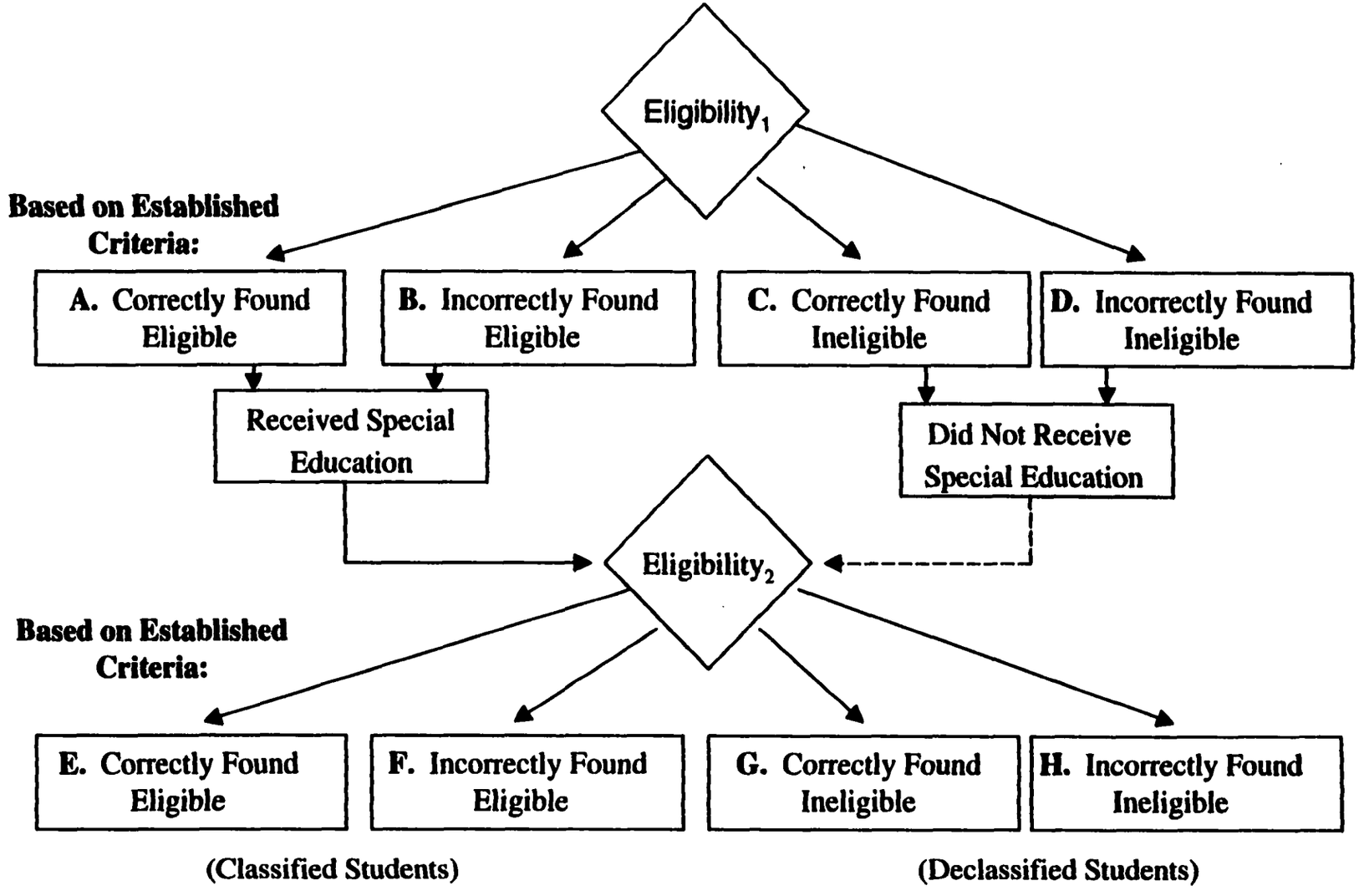

Figure 5. Conceptual model of special education eligibility decisions.

Figure 5, cont'd.

Implications of Possible Special Education Eligibility Decisions

A→E	Youth with disabilities receive needed services.
A→F	Youth should have been declassified. Inappropriate use of special education funds in years subsequent to $Eligibility_2$.
A→G	Youth was appropriately declassified.
A→H	Youth should not have been declassified. Student left at risk for school failure.
B→E	Youth should not have been found eligible at $Eligibility_1$. Inappropriate use of special education funds in years between $Eligibility_1$ and $Eligibility_2$. Youth received unneeded services.
B→F	Youth should not have been found eligible at $Eligibility_1$ or $Eligibility_2$. Inappropriate use of special education funds in the years following $Eligibility_1$ or $Eligibility_2$. Youth received unneeded services.
B→G	Youth should not have been found eligible at $Eligibility_1$. Declassification at $Eligibility_2$ used to correct previous decision. Inappropriate use of special education funds between $Eligibility_1$ and $Eligibility_2$. Youth received unnecessary services.
C→ all	Youth correctly found ineligible.
D→ all	Youth incorrectly found ineligible. Student left at risk for school failure. Youth may be referred for special education at future date.
B→H	Youth should not have been found eligible at $Eligibility_1$ and should not have been found ineligible at $Eligibility_2$. Inappropriate use of special education funds between $Eligibility_1$ and $Eligibility_2$. Youth provided with unneeded services after $Eligibility_1$. Leaves student at risk for school failure after $Eligibility_2$

Outcomes for Declassified Youth

Analyses of data from the NLTS showed generally positive results for students declassified from special education in terms of grades, high school completion, postsecondary enrollment, and social engagement. On nearly every measure, declassified youth performed better than their peers who remained in special education. Declassified

youth had fewer failing grades, were more likely to complete high school, and were less likely to be socially isolated. These findings support previous research that suggests declassified youth, on average, do well relative to their peers in special education (Carlson & Parshall, 1996; Kane et al., 1995; Koppitz, 1971).

One measure on which declassified youth performed worse than expected was behavior in academic general education classes. Teachers indicated that 5% of declassified youth did not behave well. This may reflect the fact that 13.3% of declassified youth had emotional disabilities, which are commonly associated with behavior problems. In addition, high levels of nonresponse on this item threaten the validity of any conclusions drawn from it.

Students with learning disabilities and emotional disabilities are more likely than students with other disabilities to drop out of school, and they comprise a large proportion of those declassified from special education (USDE, 1996). In 1990, however, 79% of declassified youth had completed high school compared to 62% of classified youth.

In the years immediately after high school, declassified youth were less likely than their classified peers to be competitively employed and to live independently, and were more likely to have part-time jobs. However, they were far more likely than their peers in special education to enroll in academic postsecondary courses. In 1990, nearly 60% of declassified youth had been enrolled in postsecondary education since high school.

Declassified youth were more likely than their peers in special education to receive postsecondary adult services, which may relate to their higher rate of postsecondary academic and vocational education. Many colleges and universities offer support services for students with disabilities that are unavailable to working adults with disabilities. Three

of the case study youth, Reagan, Scott, and Kevin, exhibited patterns that fit this profile. After high school, they enrolled in local colleges or universities, continued to live at home with their parents, and took part-time jobs (see narratives in Appendix B).

This pattern may also help account for differences in the life skills of classified and declassified youth. Declassified youth were more likely than classified youth to exhibit independence on most life skills measured, including having a driver's license, savings account, and credit card, and registering to vote. However, declassified youth were less likely than classified youth to have a checking account. It is possible that youth only obtained checking accounts when they moved out of their parents' houses and assumed responsibility for rent, utilities, insurance, and other expenses. Because a large proportion of declassified youth continued to live at home with their parents after secondary school, a checking account may not have been necessary. The fact that declassified youth were likely to have savings accounts and credit cards may reflect their families' higher socioeconomic status.

Youth profiles, which combined information on individual engagement in work, school, or job training; independent living; and social involvement, showed that declassified youth were more independent than their peers in special education. In 1990, 24% were independent in all three domains, and 60% were independent in two of three domains. Three percent were either active or living independently but were not socially active; 6% were active in work or school but not residentially independent; and 7% were not active in work or school and were not residentially independent. It is possible the generally positive outcomes for declassified youth reflect the nature and severity of declassified youths' disabilities, higher levels of intellectual functioning, socioeconomic

advantages, better educational services, higher levels of motivation or parental expectations, or positive peer pressure.

Despite overall positive results for declassified youth, there were exceptions. After being declassified, LaDonna earned only 1.5 of the 18 academic credits required for graduation in the three years before she dropped out. Meyers et al. (1975) found that students with educable mental retardation who were declassified after the Diana decision in California scored significantly lower on standardized achievement tests than chronically low-achieving students who had never been identified as having disabilities. It is possible that LaDonna fit this profile.

Factors Affecting Outcomes for Declassified Youth

The study identified several factors that affect outcomes for declassified youth. The first multivariate model predicted the percentage of failing grades received by declassified youth using individual and family characteristics, and school context. The model was significant, but it predicted only 21% of the variance in failing grades. All the variables in the model were significant, but the effect sizes were small. The youths' gender, the percentage of a school's students from low income families, and the total school enrollment had the largest effect sizes.

A second model predicted adult outcomes for declassified youth using individual and family characteristics, school context variables, and educational outcomes. The dependent variable was the youths' profiles for 1990, the aggregate variable generated by SRI to combine engagement in work or school, residential independence, and social engagement. The model was significant and reasonably predictive of youth's profiles, accounting for 50% of the variance. All variables except head of household's education

were included in the model and were statistically significant. The percentage of failing grades the youth received in secondary school, race/ethnicity, disability, and household income had the largest effect sizes.

Exclusion of Declassified Youth as a Source of Bias

Declassified youth were significantly different from youth who remained in special education on a wide range of variables. The differences, however, were small in magnitude. The infrequency of declassification and the small effect sizes evident in the multivariate models suggest that bias is not a concern in most outcome studies that exclude declassified youth.

Because more students are declassified in elementary school, and declassification rates vary considerably by state, future researchers should revisit this issue. It is possible that outcome studies for younger students with disabilities would be biased by the omission of students declassified from special education. Furthermore, in states such as Vermont, where education reform has promoted declassification, outcome studies that exclude declassified youth may be more susceptible to this source of bias.

If researchers suspect there is a selection bias due to the exclusion of declassified students from studies of special education outcomes, Heckman's two-step method may be used to test for bias and to estimate the extent of the bias. In the first step, a probit model is used to obtain consistent estimates, λ, of the parameters of the selection equation; this essentially treats the omission of declassified students as a problem arising from a missing variable. In the second step, the selectivity regressor is evaluated and regression is estimated by least squares (Maddala, Phillips, & Srinivasan, 1995).

Limitations of the Study

This study contributed valuable information about youth declassified from special education. The study also had several limitations, however. First, the NLTS was designed to study the transition of secondary-age students to postsecondary roles. Consequently, it included only secondary-age youth. Previous research suggests that declassification for elementary-age students may be quite different from declassification for secondary-age students. In fact, declassification is far more common at the elementary ages. Furthermore, many measures that were theoretically important to understanding declassification were not collected. For example, data were not available on the percentage of time declassified youth spent in academic and nonacademic instruction, or the percentage of time they spent in general and special education classrooms in the years immediately preceding declassification. Declassification or reduced referrals for special education are sometimes cited as beneficial side effects of including students with disabilities in general education classes. The data set did not permit an examination of the relationship between inclusion and declassification.

Second, as in many longitudinal studies, missing data were problematic. For some variables that were theoretically important to the analyses, as many as 87% of responses were missing. Furthermore, analyses suggested that the missing data were not random. The researcher created dummy variables to reflect whether responses were missing or not missing for each case. Logistic regression was then used to predict which cases would be missing using individual and family characteristics. In each case, the logistic regression model was statistically significant, indicating that the missing data were not random. However, the effect sizes in predicting missing cases were generally small and, from model

to model, the variables associated with missing data differed. In a number of models, Asian and Native American youth were less likely than other ethnic groups to have missing data, and youth with other health impairments and multiple disabilities were more likely than youth with other disabilities to have missing data. Consequently, nonresponse bias was a concern in both the bivariate and multivariate analyses, and results for those variables with high levels of missing data should, therefore, be interpreted with caution.

Third, the data from the NLTS are seven to 10 years old. When the NLTS was conducted from 1985-86 to 1990, transition planning for secondary-age students with disabilities was in its infancy, and inclusion of students with disabilities in general education classes was just beginning to emerge as a viable placement option. Consequently, the age of the data set may limit the generalization of findings to contemporary settings, particularly those findings related to special education services. The lapse between the NLTS and this follow-up permitted a description of long-term post-school outcomes for the case study participants. Some case study participants (i.e., parents and youth), however, did not remember the circumstances surrounding declassification from special education. This was not surprising since the youth were declassified as long ago as 10 years, but it was unfortunate. Furthermore, in several cases, it was difficult to obtain school records documenting the circumstances leading to youth's declassification.

Recommendations for Future Research, Policy, and Practice

This section outlines the recommendations of the study for research, policy, and practice. The recommendations are based primarily on the findings of the study. They

also draw on the experiences of the researcher in exploring the meaning and implications of special education declassification.

Recommendations for Research

The study supports the use of a broad range of outcome measures in evaluating special education programs, including declassification. This study brings attention to a group of students who have been ignored in previous disability research. Hopefully, such attention will ensure consideration of these students in future research, and encourage investigation of the possible bias associated with their omission.

A long-term follow-along study of declassification would address many of the limitations of this study. It would permit researchers to gather necessary school records; attend meetings of eligibility committees when declassification was discussed; and interview parents, youth, and school personnel about their reasons for and reactions to declassification. It would also facilitate an examination of reclassification, that is, the percentage of youth who are reassessed and found eligible for special education after having been declassified. Previous research suggests that special education is a revolving door for some students who repeatedly enter and exit the system. By tracking declassified youth every year from the point of declassification until they leave high school, researchers could better assess the risk of reclassification and factors contributing to that risk.

Recommendations for Policy

The process of identifying students with disabilities is difficult for local multidisciplinary teams, and perhaps, so is the process of declassification. Research suggests that socioeconomic factors, demographic factors, and the nature of teacher referrals may all contribute to eligibility decisions. Eligibility criteria may be ambiguous;

pressure to place students in categorical programs may be strong; and multidisciplinary teams may lack confidence in general education programs' capacity for meeting students' needs. All these factors may come to bear in declassifying students as well in classifying them. The case studies showed the unique circumstances under which students were declassified.

The case studies also provided evidence that the dichotomy between special education eligibility and ineligibility, while functional, may be somewhat artificial. Youth who were declassified from special education did not stop having educational needs. Even several of those who successfully completed high school reported limitations in their post-school adjustment. Ideally, the continuum of services should stretch beyond the limits of special education to include general education support, like that available through Title I. The paucity of services available at the secondary level may place declassified students at risk of failure, especially in circumstances where declassification was promulgated because services were unavailable at the middle or high school levels, or by changes in eligibility criteria.

Twenty years after implementation of P.L. 94-142, it may be time to revisit special education eligibility criteria. What does it mean to have a disability? To return to the analogy of Braden and Algina (1989), when does orange turn to red? If a dichotomy is politically necessary for distinguishing between those students who are eligible and those who are ineligible, how can the educational system best serve those students near the borderline of special education eligibility?

Recommendations for Practice

For administrators, teachers, and related service professionals, this study serves as a reminder that students' need for special education should be carefully monitored, not only to find all eligible students, but also to declassify those no longer requiring services. Information about which students successfully transition into general education programs may help local educators and administrators make valid decisions about whether or not students are ready to tackle general education without special education support. Appropriate procedures for declassifying students with disabilities should be developed to maximize the likelihood of their success. Finally, local educators should establish mechanisms, either formal or informal, for monitoring the progress of recently declassified students. Educational failure, like that experienced by some of the case study participants, should not go unnoticed or unaddressed. Educational successes among declassified youth should be evaluated and celebrated.

Repetto and Correa (1996) described five common elements of transition planning for preschoolers and secondary-age students with disabilities: curriculum considerations, location of services, short- and long-term planning, multiagency collaboration, and family and student focus. These elements clearly apply to planning the transition of students returning to full-time general education programs through declassification. The concept of a seamless transition model -- whether for infants and toddlers, elementary school students, secondary school completers, or declassified youth -- requires a long-term orientation, considers the individual characteristics of the student, and considers all the resources available for ensuring student success.

Summary

This dissertation employed data from the NLTS and case studies of five youth to describe outcomes for students who were declassified from special education in secondary school. The NLTS tracked a nationally representative sample of youth for three years as they left school and adopted adult roles. Analyses showed that youth who were declassified from special education in secondary school differed from youth who remained in special education based on their disability, family income, and head of household's education. Declassified youths' schools were larger, had fewer low-income families, and had more of their graduates enrolled in postsecondary academic or vocational training. Declassified youth exhibited better secondary and postsecondary outcomes than classified youth. Despite these differences, a multivariate model was unable to predict declassification well based on individual and family characteristics and school context.

The case studies showed the unique circumstances under which students were declassified, and provided evidence that the dichotomy between special education eligibility and ineligibility, while functional, is somewhat artificial. Youth who were declassified from special education did well relative to their peers who remained in special education, but many continued to have educational needs. The paucity of services available at the secondary level may place declassified students at risk of failure. Appropriate procedures for declassifying students with disabilities should be developed to

maximize the likelihood of their success, and local educators should establish mechanisms for monitoring the progress of recently declassified students.

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Appendix A

Supporting Data Tables

Individual/Family Characteristics

Table A-1

Primary Disability by Declassification Status (W2DISAB)

	Classified Students		Declassified Students	
	%	n	%	n
Learning disability	54.9	761,066	69.1	56,259
Emotional disability	10.4	144,281	13.3	10,864
Speech impairment	3.0	41,285	10.4	8,481
Mental retardation	25.0	345,809	5.5	4,506
Visual impairment	.7	9,857	.2	172
Hard of hearing	.9	13,037	.1	116
Deafness	.8	11,705	-	-
Orthopedic impairment	1.3	17,526	.4	315
Other health impairment	1.3	18,388	.9	704
Multiple disabilities	1.6	21,941	.1	43
Deafness/ blindness	.0	472	-	-

Note. $\chi^2(10) = 31,423.9$, $p < .001$.

Table A-2

Ethnic Background by Declassification Status (D_PA9)

	Classified Students		Declassified Students	
	%	n	%	n
Black (not Hispanic)	24.6	296,983	14.8	11,316
White (not Hispanic)	64.4	775,755	77.2	59,163
Hispanic	8.3	99,725	6.0	4,581
American Indian or Alaskan Native	1.2	14,553	2.0	1,548
Asian or Pacific Islander	.7	8,400	.0	38
Other	.8	10,103	-	-

Note. $\chi^2(5) = 6{,}691.847$, $p < .001$.

Table A-3

Gender by Declassification Status (D_SEX)

	Classified Students		Declassified Students	
	%	n	%	n
Male	68.6	948,926	68.2	55,380
Female	31.4	434,954	31.8	25,842

Note. $\chi^2(1) = 5.326$, $p < .02$.

Table A-4

Student Grade by Declassification Status (WBX1B)

	Classified Students		Declassified Students	
	%	n	%	n
Ungraded	26.4	35,380	.1	15
1st	.0	3	-	-
2nd	.1	72	-	-
3rd	.0	63	-	-
4th	.2	220	-	-
5th	.0	50	-	-
6th	.1	200	-	-
8th	.1	112	-	-
9th	.1	114	-	-
10th	2.4	3,178	-	-
11th	10.3	13,848	5.9	978
12th	60.2	80,584	94.0	15,522

Note. $\chi^2(11) = 7{,}743.822$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (89.8% missing).

Table A-5

Intellectual Ability on a Scale from 1 to 16 by Declassification Status (D_INTEL)

	M	SD	n
Declassified Students	14.8	1.6	71,189
Classified Students	13.7	3.0	1,096,762

Note. $p < .001$. $t = -155.593$.

Table A-6

Community Living Skills on a Scale from 4 to 16 by Declassification Status (COMLIV)

	M	SD	n
Declassified Students	15.3	1.3	12,530
Classified Students	12.8	4.1	179,533

Note. $p < .001$. $t = -165.012$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.9% missing).

Table A-7

Number of Years out of School by Declassification Status (YRSOUT)

	Classified Students		Declassified Students	
	%	n	%	n
Less than 1 year	17.9	186,096	44.3	27,833
1 year	20.3	211,334	32.9	20,656
2 years	19.4	202,209	9.5	5,991
3 years	23.5	244,113	9.5	5,972
4 years	17.4	180,603	3.8	2,386
5 years	1.3	14,033	-	-
6 years	.1	547	-	-
7 years	.1	875	-	-
8 years	.0	57	-	-

Note. $\chi^2(8) = 41,415.5$, $p < .001$.

Table A-8

Students' Age in 1990 by Declassification Status (W2AGE)

	M	SD	n
Declassified Students	19.3	1.3	81,460
Classified Students	20.6	1.8	1,385,368

Note. $p < .001$. $t = 271.255$.

Table A-9

Family Structure by Declassification Status (D_PG1)

	Classified Students		Declassified Students	
	%	n	%	n
One-parent household	36.9	411,642	33.1	23,722
Two-parent household	63.1	702,664	66.9	71,630

Note. $\chi^2(1) = 423.720$, $p < .001$.

Table A-10

1986 Household Income by Declassification Status (D_PG12)

	Classified Students		Declassified Students	
	%	n	%	n
Under $12,000	34.7	356,463	22.5	15,146
$12,000 but less than $20,000	21.9	225,477	23.8	16,047
$20,000 to $24,999	8.1	83,098	13.9	9,362
Under $25,000, unspecified	2.6	26,720	3.5	2,348
$25,000 but less than $38,000	16.5	169,917	15.6	10,536
38,000 to $50,000	9.2	94,825	12.1	8,132
Over $50,000	6.1	62,440	7.2	4,865
$25,000 and over, unspecified	.9	9,503	1.5	983

Note. $\chi^2(7) = 6,488.341$, $p < .001$.

Table A-11

Head of Household's Highest Education Level by Declassification Status (D_PG7)

	Classified Students		Declassified Students	
	%	n	%	n
Eleventh grade or less	41.7	462,580	29.4	21,017
High school diploma	36.3	403,173	33.2	23,730
Some college	9.9	109,824	17.2	12,280
Two-year college degree	3.4	38,109	6.0	4,255
Four-year college degree	4.6	51,364	6.4	4,572
Some graduate work/ no graduate degree	1.0	10,901	4.7	3,377
Graduate degree	3.0	33,728	3.1	2,212

Note. $\chi^2(6) = 15{,}519.8$, $p < .001$.

School Context

Table A-12

Schools' Average Daily Attendance by Declassification Status (SWA7)

	M	SD	n
Declassified Students	965.1	606.6	64,366
Classified Students	862.9	630.9	635,791

Note. $p < .001$. $t = -40.578$.

Table A-13

Schools' Student Enrollment by Declassification Status (SWA6)

	M	SD	n
Declassified Students	1,146.1	593.9	34,335
Classified Students	961.8	668.1	384,952

Note. $p < .001$. $t = -54.500$. Readers should exercise caution in interpreting this table due to high levels of missing data (71.4% missing).

Table A-14

Percentage of Students Who Will Attend Trade or Technical School (SWA5B)

	M	SD	n
Declassified Students	12.7	8.8	61,220
Classified Students	15.8	13.4	612,647

Note. $p < .001$. $t = 78.192$. Readers should exercise caution in interpreting this table due to high levels of missing data (54.1% missing).

Table A-15

Percentage of Students Who Will Attend College (SWA5C)

	M	SD	n
Declassified Students	52.8	19.8	65,570
Classified Students	45.8	22.4	628,636

Note. $p < .001$. $t = 78.192$. Readers should exercise caution in interpreting this table due to high levels of missing data (54.1% missing).

Table A-16

Percentage of Schools' Students from Low-Income Families by Declassification Status (SWA4)

	Classified Students		Declassified Students	
	%	n	%	n
Less than 10%	18.0	116,279	27.8	18,441
10% to 25%	37.7	243,674	39.4	26,120
26% to 50%	29.7	192,121	25.4	16,867
Over 50%	14.7	94,961	7.3	4,850

Note. $\chi^2(3) = 5{,}835.099$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (51.4% missing).

Table A-17

Percentage of Youth Who Took Some Vocational Education in High School by Declassification Status (NOVOC)

	%	n
Declassified Students	99.7	64,142
Classified Students	98.7	410,030

Note. $\chi^2(1) = 459.555$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (67.3% missing).

Table A-18

1987 and 1990 Enrollment in Postsecondary School by Declassification Status (W1W2PSS)

	Classified Students		Declassified Students	
	%	n	%	n
Not enrolled in 1987 nor 1990	80.0	201,294	95.0	3,758
Not enrolled in 1987, but enrolled in 1990	5.7	14,400	2.2	89
Enrolled in 1987, but not enrolled in 1990	9.7	24,422	1.6	64
Enrolled in 1987 and 1990	4.6	11,574	1.1	45

Note. $\chi^2(3) = 561.874$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (82.6% missing).

Table A-19

Type of School by Declassification Status (SWA1)

	Classified Students		Declassified Students	
	%	n	%	n
Serves students with handicaps or disabilities	7.3	48,013	.0	4
Primarily for students with a particular interest or talent	.3	2,080	.6	396
Vocational technical school	1.6	10,622	-	-
Continuation or alternative school	.8	5,143	3.3	2,166
General or comprehensive school	90.0	590,949	96.1	63,898

Note. $\chi^2(4) = 9,977.442$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (50.7% missing).

Secondary School Programs/Services

Table A-20

Receipt of School Services by Declassification Status (TUSKOL9, THSKOL9, SPSKOL9, OTSKOL9, PTSKOL9)

	Classified Students		Declassified Students	
In the ninth grade youth received the following:	%	n	%	n
Tutoring (a)	21.7	37,546	17.4	2047
Personal Counseling (b)	27.1	47,339	7.1	821
Speech Therapy (c)	27.7	48,168	34.3	4,039
Occupational Therapy (d)	25.5	97,470	52.7	12,567
Physical Therapy (e)	13.4	23,230	26.3	3,128

Note. (a)$\chi^2(1) = 117.646$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (87.4% missing). (b)$\chi^2(1) = 2279.184$, $p < .001$. Missing 87.3%. (c)$\chi^2(1) = 241.627$, $p < .026$. Missing 97.3%. (d)$\chi^2(1) = 8390.322$, $p < .001$.Missing 72.3%. (e)$\chi^2(1) = 1509.161$, $p < .001$. Missing 87.4%.

Table A-21

Membership in School Clubs or Groups by Declassification Status (WSKOLGRP, WKO4A)

	Classified Students		Declassified Students	
	%	n	%	n
Belonged to club or group while in school (a)	44.2	367,054	81.1	56,383
Some in the past year (b)	34.7	19,795	28.7	2,133

Note. (a)$\chi^2(1) = 35{,}012.6$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (38.7% missing). (b)$\chi^2(1) = 104.299$, $p < .001$. (95.6% missing).

Table A-22

Percentage of Failing Grades Youth Received by Declassification Status (PCTF_OVR)

	M	SD	n
Declassified Students	13.2	19.1	76,697
Classified Students	15.5	25.1	905,084

Note. $p < .001$. $t = 31.974$. Readers should exercise caution in interpreting this table due to high levels of missing data (33.1% missing).

Table A-23

Average Days Absent by Declassification Status (WABS_OVR)

	M	SD	n
Declassified Students	13.7	14.3	68,092
Classified Students	18.2	19.8	800,645

Note. $p < .001$. $t = 75.629$. Readers should exercise caution in interpreting this table due to high levels of missing data (41.8% missing).

Table A-24

Behavior for Students in School- or Community-Based Work Experience by Declassification Status (BNORMWE)

	Classified Students		Declassified Students	
	%	n	%	n
Not Well	3.6	4,102	3.0	673
Mixed	9.7	11,114	6.2	1,409
Fairly Well	15.4	29,175	16.6	3,767
Well	12.2	14,036	11.2	2,540
Pretty Well	19.1	21,882	12.9	2,910
Very Well	30.0	34,459	50.1	11,338

Note. χ^2 (5) = 3,580.473, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (90.6% missing).

Table A-25

Behavior for Students Receiving Academic Instruction in Regular Education Classes by Declassification Status (BNORMAC)

	Classified Students		Declassified Students	
	%	n	%	n
Not Well	1.5	1,999	5.0	2,881
Mixed	12.4	16,148	18.9	10,989
Fairly Well	19.9	25,928	26.4	15,321
Well	13.7	17,903	9.6	5,559
Pretty Well	23.2	30,266	9.2	5,362
Very Well	29.2	38,132	30.9	17,918

Note. $\chi^2(5)$ = 8,539.190, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (87.2% missing).

Table A-26

Grade Level in Math in 1990 by Declassification Status (TA11_MA)

	Classified Students		Declassified Students	
	%	n	%	n
1st	2.8	5,989	-	-
2nd	4.0	8,617	-	-
3rd	8.1	17,331	-	-
4th	9.0	19,329	.8	395
5th	11.0	23,526	3.4	1,689
6th	15.5	33,287	5.9	2,889
7th	9.3	19,969	12.0	5,904
8th	8.1	17,445	26.8	13,223
9th	9.1	19,467	15.4	7,595
10th	6.2	13,283	13.1	6,449
11th	2.9	6,160	6.8	3,341
12th	4.8	10,340	12.1	5,935
13th	5.1	10,977	3.7	1,833
14th	1.5	3,143	-	-
15th	2.4	5,206	-	-

Note. $\chi^2(14) = 39{,}645.5$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (82.0% missing).

Table A-27

Grade Level in Reading in 1990 by Declassification Status (TA11_RD)

	Classified Students		Declassified Students	
	%	n	%	n
1st	4.0	8,648	-	-
2nd	5.1	11,038	-	-
3rd	9.7	20,961	2.4	1,205
4th	10.9	23,553	7.3	3,629
5th	13.7	29,598	3.7	1,818
6th	10.8	23,417	9.0	4,469
7th	8.5	18,357	8.6	4,251
8th	8.7	18,884	16.8	8,302
9th	3.8	8,259	8.2	4,059
10th	10.8	23,475	12.8	6,335
11th	1.7	3,740	11.8	5,846
12th	3.9	8,352	15.5	7,644
No grade determined	5.0	10,817	3.7	1,833
Lower than kindergarten	2.2	4,785	-	-
Kindergarten	1.2	2,607	-	-

Note. $\chi^2(14) = 37,676.2$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (81.9% missing).

Table A-28

Educational Goals by Declassification Status (TA7_01, TA7_02, TA7_03)

	Classified Students		Declassified Students	
	%	n	%	n
To attend a two- or four-year college (a)	17.3	38,233	40.2	23,628
To attend a postsecondary vocational training program (b)	26.0	57,553	19.8	11,664
To obtain competitive employment (c)	51.4	113,717	48.6	28,563

Note.(a)$\chi^2(1) = 14{,}160.2$, $p < .001$. (b)$\chi^2(1) = 962.240$, $p < .001$. (c)$\chi^2(1) = 147.494$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (80.9% missing).

Table A-29

Age of Student When S/he Left Secondary School by Declassification Status (SCHLVAGE)

	Classified Students		Declassified Students	
	%	n	%	n
13	.0	61	-	-
14	.1	1,240	.0	24
15	.4	3,784	-	-
16	3.4	34,884	.1	61
17	8.7	90,852	3.0	1,903
18	27.4	284,470	36.4	22,880
19	35.5	369,366	50.9	32,015
20	14.2	147,995	8.3	5,229
21	6.3	65,335	1.2	726
22	3.3	34,395	-	-
23	.6	5,883	-	-
24	.1	1,007	-	-
25	.0	216	-	-
26	.0	362	-	-
28	.0	15	-	-

Note. $\chi^2(14) = 16{,}784.4$, $p < .001$.

Table A-30

Percentage of Students Who Were Overage for Grade by Declassification Status (WOVERAGE)

	%	n
Declassified Students	13.0	10,119
Classified Students	33.0	313,363

Note. $\chi^2(1) = 13{,}271.4$, $p < .001$.

Table A-31

Year Student Left Secondary School by Declassification Status (SCHLVYR)

	Classified Students		Declassified Students	
	%	n	%	n
1982	.0	57	-	-
1983	.1	875	-	-
1984	.1	547	-	-
1985	1.3	14,033	-	-
1986	17.4	180,603	3.8	2,386
1987	23.5	244,113	9.5	5,972
1988	19.4	202,209	9.5	5,991
1989	20.3	211,334	32.9	20,656
1990	17.2	178,922	41.6	26,165
1991	.7	7,175	2.7	1,668

Note. $\chi^2(9) = 42{,}003.5$, $p < .001$.

Table A-32

Percentage of Students Who Dropped out or Were Suspended/Expelled Any Time in High School by Declassification Status (WDROPCUM)

	%	n
Declassified Students	14.9	11,542
Classified Students	26.5	275,995

Note. $\chi^2(1) = 5{,}039.780$, $p < .001$.

Table A-33

School Completion Status in 1990 by Declassification Status (COMPST90)

	Classified Students		Declassified Students	
	%	n	%	n
Graduated as of 1990	61.9	671,178	78.9	49,573
Aged out as of 1990	4.5	49,180	1.3	801
Dropped out as of 1990	32.2	349,329	19.8	12,423
Suspended/expelled as of 1990	1.4	15,317	-	-

Note. $\chi^2(3) = 7{,}993.962$, $p < .001$.

Table A-34

Percentage of Students with a Failing Grade by Declassification Status (WFAILEVR)

	%	n
Declassified Students	71.8	55,835
Classified Students	54.3	512,436

Note. $\chi^2(1) = 8{,}873.130$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (30.4 % missing).

Table A-35

Percentage of All Youths' Grades That Were F's by Declassification Status (PCTF_OVR)

	%	n
Declassified Students	13.2	76,697
Classified Students	15.5	905,084

Note. $p < .001$. $t = 31.974$. Readers should exercise caution in interpreting this table due to high levels of missing data (33.1 % missing).

Table A-36

Task Awareness for Academic Instruction in Regular Education Classes by Declassification Status (TASKAC)

	Classified Students		Declassified Students	
	%	n	%	n
Very rarely aware	8.8	10,845	22.1	12,676
Rarely aware	10.9	13,361	8.0	4,583
Sometimes aware	22.8	27,954	17.5	10,029
Usually aware	10.9	13,365	13.6	7,815
More usually aware	18.0	22,063	10.8	6,220
Almost always aware	12.4	15,193	10.5	6,043
Mostly always aware	16.3	10,979	17.4	9,991

Note. $\chi^2(6) = 7{,}771.795$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (87.7% missing).

Table A-37

Task Awareness for Vocational Education Classes by Declassification Status (TASKRV)

	Classified Students		Declassified Students	
	%	n	%	n
Very rarely aware	6.3	6,288	10.6	3,549
Rarely aware	9.3	9,286	4.3	1,430
Sometimes aware	22.4	22,424	13.0	4,330
Usually aware	14.8	14,818	29.6	9,882
More usually aware	12.0	12,012	8.0	2,681
Almost always aware	17.0	17,051	12.5	4,167
Mostly always aware	18.3	18,307	22.1	7,366

Note. $\chi^2(6) = 6{,}363.470$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (90.9% missing).

Table A-38

Number of Times Per Month Student Got Together with Groups (WKO4C)

	M	SD	n
Declassified Students	1.8	4.1	5,129
Classified Students	1.3	2.3	53,566

Note. $p < .001$. $t = -12.684$. Readers should exercise caution in interpreting this table due to high levels of missing data (96.0% missing).

Table A-39

Frequency of Visits with Friends by Declassification Status (SOCIAL90)

	Classified Students		Declassified Students	
	%	n	%	n
Never	9.4	17,859	.5	70
Less than once a week	4.8	9,161	-	-
Once a week	16.6	31,464	16.6	2,252
Two-three times per week	28.1	53,168	40.1	5,434
Four-five times per week	17.4	32,932	18.0	2,442
Six-seven times per week	23.6	44,714	24.7	3,347

Note. $\chi^2(5) = 2,434.299$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.2% missing).

Table A-40

Frequency of Social Interaction Outside of School by Declassification Status (WKO3A)

	Classified Students		Declassified Students	
	%	n	%	n
Never	28.2	7,678	.5	17
Less than once a week	5.0	1,353	-	-
Once a week	18.4	5,013	27.7	1,014
Two or three days a week	18.4	4,993	62.7	2,290
Four or five days a week	10.4	2,839	8.0	291
Six or seven days a week	19.5	5,309	1.2	42

Note. $\chi^2(5) = 4,643.962$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (97.9% missing).

Table A-41

Frequency of Social Interaction with Friends/Family Members Outside of Home by Declassification Status (WKO3B)

	Classified Students		Declassified Students	
	%	n	%	n
Never	6.3	10,181	.5	53
Less than once a week	4.8	7,808	-	-
Once a week	16.3	26,451	12.5	1,238
Two or three times a week	29.7	48,175	31.8	3,144
Four or five times a week	18.6	30,093	21.8	2,151
Six or seven times a week	24.3	39,405	33.4	3,305

Note. $\chi^2(5) = 1{,}451.320$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (88.3% missing).

Table A-42

Frequency of Social Interaction with Friends Outside of School by Declassification Status (FRNDSK2)

	Classified Students		Declassified Students	
	%	n	%	n
Never	8.7	100,057	4.2	3,193
Less than once a week	4.9	56,082	1.0	745
One day a week	13.3	153,312	10.3	7,790
Two or three days a week	29.3	338,108	26.4	20,030
Four or five days a week	16.0	184,999	16.9	12,810
Six or seven days a week	27.9	321,547	41.2	31,281

Note. $\chi^2(5) = 9{,}173.492$, $p < .001$.

Table A-43

Percentage of Students Who Belonged to a Social, Community, or School Group by Declassification Status (GROUP90)

	%	n
Declassified students	45.5	6,307
Classified students	29.7	58,589

Note. $\chi^2(1) = 1{,}528.779$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.6% missing).

Table A-44

Frequency of Contact Between Student and Parent or Guardian by Declassification Status (WE3)

	Classified Students		Declassified Students	
	%	n	%	n
About every day	35.8	23,299	15.0	352
A few times a week	29.6	19,268	5.5	129
About once a week	19.3	12,559	74.6	1,748
Every few weeks	8.9	5,770	-	-
Every few months	4.7	3,035	4.9	114
Less than every few months	1.7	1,115	-	-

Note. $\chi^2(5) = 4{,}240.560$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (95.4% missing).

Table A-45

Pattern of Social Isolation over Time by Declassification Status (PATRNISO)

	Classified Students		Declassified Students	
	%	n	%	n
Steadily isolated	2.2	16,395	1.2	727
Became isolated in 1990	6.0	44,262	.3	177
Made connections in 1990	5.0	36,701	3.0	1,822
Steadily connected socially	86.7	634,444	95.5	57,867

Note. $\chi^2(3) = 4{,}546.688$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (46.0% missing).

Postsecondary Adult Services

Table A-46

Services Received by Out-of-School Youths in 1990 by Declassification Status (WD1, WD13, WD25, WD37, WD49, WD61, WD91, WD98)

	Classified Students		Declassified Students	
	%	n	%	n
Receiving some career counseling, job assistance, job skills training, or vocational education (a)	16.4	122,983	19.6	9,889
Receiving some life skills training or occupational therapy (b)	8.2	62,287	5.9	2,930
Receiving some aid from a tutor, reader, or an interpreter(c)	7.3	55,112	8.7	4,373
Receiving some speech or language therapy (d)	2.3	17,424	.5	278
Receiving some personal counseling or therapy (e)	6.8	50,870	3.4	1,744
Receiving some physical therapy, mobility training, or other help with physical disabilities (f)	6.1	19,018	.4	23
Receiving some assistance from vocational rehabilitation (g)	2.1	14,621	-	-
Received some other kind of service for a disability since high school (h)	1.0	6,783	.1	31

Note. (a)$\chi^2(1) = 336.600$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 30.4%). (b)$\chi^2(1) = 344.219$, $p < .001$. (c)$\chi^2(1) = 137.959$, $p < .045$. (Missing 30.1%). (d)$\chi^2(1) = 682.237$, $p < .001$. (e)$\chi^2(1) = 865.706$, $p < .001$. (Missing 30.0%). (f)$\chi^2(1) = 333.813$, $p < .001$. (Missing 72.3%). (g)$\chi^2(1) = 1057.500$, $p < .001$. (Missing 34.7%). (h)$\chi^2(1) = 381.209$, $p < .001$. (Missing 34.7%).

Young Adult Outcomes

Table A-47

Current Hours per Week Employed by Declassification Status (WIL11A)

	M	SD	n
Declassified students	28.9	12.9	5,386
Classified students	34.5	11.4	96,913

Note. $\chi^2(49) = 24026.4$, $p < .001$. $t = 31.231$. Readers should exercise caution in interpreting this table due to high levels of missing data (93.0% missing).

Table A-48

Current Hourly Wage by Declassification Status (WIL12)

	M	SD	n
Declassified students	5.7	2.3	5,325
Classified students	5.5	2.5	91,560

Note. $p < .001$. $t = -8.221$.Readers should exercise caution in interpreting this table due to high levels of missing data (93.3% missing).

Table A-49

Enrollment in Postsecondary Education (Excluding GED) by Declassification Status (PSSNOW, PSSANY)

	Classified Students		Declassified Students	
	%	n	%	n
Currently enrolled (a)	13.6	13,335	50.7	4,808
Has been in postsecondary school (b)	27.1	46,397	59.8	5,673

Note. (a)$\chi^2(1) = 9,381.902$, $p < .001$. (b)$\chi^2(1) = 4,691.175$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (87.7% missing).

Table A-50

Type of Enrollment in a Two-Year College by Declassification Status (WJM9)

	Classified Students		Declassified Students	
	%	n	%	n
Part-time	32.0	4,396	97.9	1,879
Full-time	68.0	9,322	2.1	40

Note. $\chi^2(1) = 3{,}039.149$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (98.9% missing).

Table A-51

Percentage of Students Enrolled in Vocational or Academic Postsecondary Courses by Declassification Status (ACAVOC)

	Classified Students		Declassified Students	
	%	n	%	n
Academic	52.5	24,086	85.8	4,124
Vocational	44.6	20,468	14.2	685
Academic and vocational	2.8	1,296	-	-

Note. $\chi^2(2) = 1{,}962.307$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data(96.5% missing).

Table A-52

Enrollment in Classes Since High School by Declassification Status (WJM14, WJM6)

	Classified Students		Declassified Students	
	%	n	%	n
Some classes in vocational or trade school (a)	9.2	15,843	7.2	685
Some classes in a two-year college (b)	17.9	30,681	38.0	3,608

Note. (a)$\chi^2(1) = 43.738$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 87.6%) (b) $\chi^2(1) = 2,371.868$, $p < .001$. (Missing 87.7%).

Table A-53

Reason for Leaving Last Job by Declassification Status (WLEFTJOB)

	Classified Students		Declassified Students	
	%	n	%	n
Student quit	42.1	49,385	45.7	4,862
Student was fired	10.6	12,430	7.8	831
Student was laid off	13.9	16,290	21.8	2,319
Temporary job ended	33.4	39,164	24.8	2,637

Note. $\chi^2(3) = 742.854$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (91.3% noted).

Table A-54

Reasons Why Student Quit Last Job by Declassification Status (WQUITJOB)

	Classified Students		Declassified Students	
	%	n	%	n
Found a better job	24.6	11,870	.6	27
Wanted a better job or better-paying job	14.2	6,861	-	-
Did not like hours/ kind of work/ working conditions	21.3	10,270	14.0	679
Did not get along with co-workers/ boss	8.5	4,126	18.7	908
Returned to school/ job interfered with school	7.0	3,357	39.8	1,935
Illness or disability	.9	439	-	-
Family reasons	3.8	1,820	-	-
Moved	9.3	4,510	26.2	1,275
Too hard to get to job location	4.2	2,022	-	-
Other	6.2	3,016	.8	38

Note. $\chi^2(9) = 9{,}025.957$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (96.4% missing).

Table A-55

Percentage of Youth Competitively Employed by Declassification Status (CUREMP90)

	%	n
Declassified students	41.6	5,793
Classified students	48.1	95,462

Note. $\chi^2(1) = 218.456$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.5% missing).

Table A-56

Employment Pattern Between 1987 and 1990 by Declassification Status (PATRNEMP)

	Classified Students		Declassified Students	
	%	n	%	n
None	36.6	283,116	22.7	14,046
Became unemployed	12.2	94,411	20.4	12,609
Became employed	24.1	186,757	25.3	15,627
Steadily employed	27.1	209,657	31.5	19,480

Note. $\chi^2(3) = 6{,}541.749$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (43.0% missing).

Table A-57

Involvement in Social or Community Groups by Declassification Status (WKO4B)

	%	n
Declassified students	35.9	4,973
Classified students	22.3	44,077

Note. $\chi^2(1) = 1{,}346.543$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.6% missing).

Table A-58

Type of Living Arrangement in 1987 and 1990 by Declassification Status (LIVING87, LIVING90)

	Classified Students		Declassified Students	
	%	n	%	n
Supervised as of 1987 (a)	3.2	27,749	1.3	831
With family as of 1987 (a)	91.9	799,359	96.3	62,177
Independent as of 1987 (a)	4.1	35,947	2.0	1,301
Other as of 1987 (a)	.8	7,070	.4	282
Supervised as of 1990 (b)	3.9	36,487	.0	13
With family as of 1990 (b)	66.0	614,942	67.1	45,184
Independent as of 1990 (b)	27.8	259,345	32.2	21,710
Other as of 1990 (b)	2.3	21,216	.7	449

Note. (a)$\chi^2(3) = 1{,}622.845$, $p < .001$.Readers should exercise caution in interpreting this table due to high levels of missing data (missing 36.3%). (b) $\chi^2(3) = 3{,}806.036$, $p < .001$. (Missing 31.9%).

Table A-59

Percentage of Students Who Were Productively Engaged in 1987 and 1990 by Declassification Status (ENGAGE87, ENGAGE90)

	Classified Students		Declassified Students	
	%	n	%	n
Productively engaged 1987 (a)	34.6	391,137	28.5	20,665
Productively engaged 1990 (b)	77.3	89,2	89.2	42,828

Note. (a)$\chi^2(1) = 1{,}135.024$, $p < .001$. (b)$\chi^2(1) = 3{,}738.414$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 48.7%).

Table A-60

Pattern of Independent Living over Time by Declassification Status (PATRNLIV)

	Classified Students		Declassified Students	
	%	n	%	n
Never independent	71.9	612,582	67.0	43,248
Lost independence	.9	7,679	.3	220
Gained independence	24.0	204,949	31.0	20,042
Steadily independent	3.2	27,259	1.7	1,081

Note. $\chi^2(3) = 2{,}066.703$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (37.5% missing).

Table A-61

Percentage of Youth Living Independently in 1987 by Declassification Status (INDLIV87)

	%	n
Declassified students	2.0	1,301
Classified students	4.1	35,947

Note. $\chi^2(1) = 704.234$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (36.3% missing).

Table A-62

Type of Job in 1987 by Declassification Status (JOB87)

	Classified Students		Declassified Students	
	%	n	%	n
Professional/ management/ sales	4.1	13,686	1.2	391
Clerical	13.2	44,309	9.2	2,916
Crafts	9.4	31,394	13.7	4,358
Operatives	10.3	34,449	5.7	1,821
Laborers	25.4	85,128	37.3	11,869
Service: cleaning	7.7	25,781	5.9	1,868
Service: food	14.3	47,824	12.7	4,054
Service: child	6.8	22,856	6.7	2,148
Service: other	8.9	29,753	7.6	2,424

Note. $\chi^2(8) = 3{,}942.425$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (75.0% missing).

Table A-63

Type of Job in 1990 by Declassification Status (JOB90)

	Classified Students		Declassified Students	
	%	n	%	n
Professional/ management/ sales	8.5	8,757	17.4	1,006
Clerical	9.4	9,690	33.0	1,913
Crafts	13.7	14,036	1.4	81
Operatives	18.9	19,428	-	-
Laborers	24.0	24,642	6.2	360
Service: cleaning	2.9	3,016	1.2	70
Service: food	14.9	15,313	40.8	2,364
Service: child	.6	577	-	-
Service: other	7.0	7,195	-	-

Note. $\chi^2(8) = 8{,}558.508$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (92.6% missing).

Table A-64

Type of Work by Declassification Status (WIL11C)

	Classified Students		Declassified Students	
	%	n	%	n
Part-time	34.7	35,871	49.2	2,651
Full-time	65.3	67,357	50.8	2,735

Note. $\chi^2(1) = 468.129$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (92.6% missing).

Table A-65

Type of Employment by Declassification Status (EMPLMT90)

	Classified Students		Declassified Students	
	%	n	%	n
None	38.7	73,846	48.9	6,450
Volunteer only	3.4	6,557	1.1	141
Unpaid/unknown work study	.4	841	-	-
Paid work study	2.5	4,799	9.3	1,222
Unpaid sheltered work	.8	1,449	-	-
Part-time paid sheltered work	3.0	5,774	-	-
Full-time paid sheltered work	1.2	2,274	-	-
Part-time paid supported work	.5	1,006	-	-
Full-time paid supported work	.3	604	-	-
Part-time paid competitive work	15.3	29,149	20.1	2,651
Full-time paid competitive work	33.8	64,559	20.7	2,735

Note. $\chi^2(10) = 4{,}089.576$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.1% missing).

Table A-66

Competitive Employment in 1990 by Declassification Status (HRSEMP90)

	Classified Students		Declassified Students	
	%	n	%	n
None	51.9	103,039	60.1	8,127
Part-time	15.2	30,155	19.6	2,651
Full-time	32.9	65,163	20.2	2,735

Note. $\chi^2(2) = 948.878$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.6% missing).

Table A-67

Wage Category in 1987 and 1990 by Declassification Status (WAGCAT87, WAGCAT90)

	Classified Students		Declassified Students	
	%	n	%	n
<$3.30 per hour in 1987 (a)	23.4	71,755	35.4	11,300
$3.30 - 4.30 per hour in 1987 (a)	51.0	156,436	44.0	14,051
$4.31 - 6.00 per hour in 1987 (a)	19.2	58,806	15.9	5,091
> $6.00 per hour in 1987 (a)	6.4	19,545	4.6	1,482
< $3.30 per hour in 1990 (b)	9.4	8,651	4.6	246
$3.30 - 4.30 per hour in 1990 (b)	24.7	22,700	24.3	1,296
$4.31 - 6.00 per hour in 1990 (b)	36.3	33,333	42.3	2,252
> $6.00 per hour in 1990 (b)	29.5	27,110	28.8	1,531

Note. (a)$\chi^2(3) = 2{,}276.610$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 76.9%). (b)$\chi^2(3) = 176.985$, $p < .001$. (Missing 93.4%).

Table A-68

Job Benefits by Declassification Status (WIL13A, WIL13B)

	Classified Students		Declassified Students	
	%	n	%	n
Receives paid vacation or sick leave (a)	52.8	49,360	37.7	2,002
Receives medical or hospital insurance (b)	47.9	44,969	45.7	2,610

Note. (a)$\chi^2(1) = 457.458$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 93.3%). (b)$\chi^2(1) = 10.430$, $p < .001$. (Missing 93.2%).

Table A-69

Percentage of Youth with Various Life Skills by Declassification Status (WKO5, WKO6, WKO7, WKO8A, WKO8B, WKO8C)

	Classified Students		Declassified Students	
	%	n	%	n
Has driver's license(a)	55.6	100,065	70.4	9,528
Registered to vote(b)	46.2	79,810	52.6	7,285
Makes some financial decisions (allowance or other money)(c)	49.5	9,268	84.0	3,009
Has a savings account(d)	45.1	70,244	70.0	6,634
Has a personal checking account(e)	29.9	47,403	19.6	1,856
Has a credit card or charge account(f)	21.7	34,400	50.9	4,825

Note. (a)$\chi^2(1) = 1{,}112.483$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 86.8%). (b)$\chi^2(1) = 208.634$, $p < .001$. (Missing 87.3%). (c)$\chi^2(1) = 1.449.788$, $p < .001$. (Missing 98.5%). (d)$\chi^2(1) = 2{,}213.386$, $p < .001$ (Missing 88.7%). (e)$\chi^2(1) = 463.511$, $p < .001$. (Missing 88.6%). (f)$\chi^2(1) = 4{,}237.796$, $p < .001$. (Missing 88.6%).

Table A-70

Percentage of Youth Who Received Health or Medical Insurance by Declassification Status (WKO9)

	%	n
Declassified Students	100.0	147
Classified Students	37.9	3,459

Note. $\chi^2(1) = 233.924$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (99.4% missing).

Table A-71

Productivity in 1987 and 1990 by Declassification Status (PATRNENG)

	Classified Students		Declassified Students	
	%	n	%	n
Productively engaged in 1987 and 1990	55.3	28,653	100.0	53
Productively engaged in 1987 but not in 1990	17.5	9,075	-	-
Not productively engaged in 1987 but productive in 1990	14.0	7,250	-	-
Not productively engaged in 1987 nor in 1990	13.2	6,822	-	-

Note. $\chi^2(3) = 42.449$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (96.5% missing).

Table A-72

Percentage of Youth Ever Arrested by Declassification Status (WKO10)

	%	n
Declassified students	20.4	2,825
Classified students	16.7	34,014

Note. $\chi^2(1) = 126.563$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.2% missing).

Table A-73

Youths' Ability to Travel to a Library or Community Swimming Pool by Declassification Status (WE1A)

	Classified Students		Declassified Students	
	%	n	%	n
Not at all well	13.5	24,680	.0	4
Not very well	6.6	12,160	-	-
Pretty well	14.7	26,839	3.3	416
Very well	65.2	119,209	96.7	12,110

Note. $\chi^2(3) = 5{,}328.217$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.7% missing).

Table A-74

Youths' Ability to Use Public Transportation by Declassification Status (WE1B)

	Classified Students		Declassified Students	
	%	n	%	n
Not at all well	13.2	24,696	.0	4
Not very well	7.1	13,351	-	-
Pretty well	14.9	27,792	14.0	1,753
Very well	64.8	121,254	86.0	10,773

Note. $\chi^2(3) = 3{,}340.978$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.4% missing).

Table A-75

Youths' Ability to Buy Clothes by Declassification Status (WE1C)

	Classified Students		Declassified Students	
	%	n	%	n
Not at all well	12.7	23,807	.0	4
Not very well	8.9	16,640	-	-
Pretty well	13.8	25,900	8.3	1,037
Very well	64.5	120,667	91.7	11,488

Note. $\chi^2(3) = 4{,}279.806$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.4% missing).

Table A-76

Youths' Ability to Make Travel Arrangements by Declassification Status (WE1D)

	Classified Students		Declassified Students	
	%	n	%	n
Not at all well	22.9	42,528	.9	115
Not very well	14.2	26,373	21.0	2,629
Pretty well	17.1	31,839	2.5	312
Very well	45.8	85,262	75.6	9,473

Note. $\chi^2(3) = 6{,}734.981$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.5% missing).

Table A-77

Youths' Marital Status by Declassification Status (WKO2)

	Classified Students		Declassified Students	
	%	n	%	n
Married	6.1	12,591	4.9	679
Single, never married	82.9	169,812	92.8	12,867
Married or living with another	9.8	20,170	2.3	313
Divorced or separated	1.0	1,986	-	-
Widowed	.1	274	-	-

Note. $\chi^2(4) = 1{,}137.308$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (85.1% missing).

Table A-78

Social Isolation in 1987 and 1990 by Declassification Status (ISOLAT87, ISOLAT90)

	Classified Students		Declassified Students	
	%	n	%	n
Socially isolated as of 1987 (a)	7.2	58,299	4.1	2,549
Socially isolated as of 1990 (b)	9.6	18,541	.4	53

Note. (a) $\chi^2(1) = 859.450$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 40.7%). (b)$\chi^2(1) = 1{,}350.6$, $p < .001$. (Missing 85.9%).

Table A-79

Youths' Ability to Get Along With Others by Declassification Status (WE2)

	Classified Students		Declassified Students	
	%	n	%	n
Not at all well	2.1	3,806	-	-
Not very well	6.3	11,618	.0	4
Pretty well	28.5	52,749	39.3	4,934
Very well	63.2	116,946	60.6	7,609

Note. $\chi^2(3) = 1{,}521.237$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (86.5% missing).

Table A-80

Percentage of Youths Whose Living Expenses Were Paid by Family or Guardian by Declassification Status (WE4)

	%	n
Declassified students	56.1	5,111
Classified students	32.2	50,626

Note. $\chi^2(1) = 2{,}199.128$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (88.7% missing).

Table A-81

Self-Care Ability on a Scale from 4 to 16 by Declassification Status (D_SELFC)

	M	SD	n
Declassified students	11.9	.4	72,008
Classified students	11.5	1.4	1,121,221

Note. $p < .001$. $t = -176.488$.

Table A-82

Youth Profile in 1987 by Declassification Status (PROFIL87)

	Classified Students		Declassified Students	
	%	n	%	n
Active, living independently, and socially involved	6.2	15,959	26.9	899
Independent in two of the above categories	34.4	88,573	12.5	416
Independent in one of the above categories only	16.4	42,232	25.9	864
Active but not independent	20.2	52,127	14.9	498
Not independent	21.6	55,698	19.9	665
Not independent and institutionalized	1.1	2,940	-	-

Note. $\chi^2(5) = 2{,}922.987$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (82.2% missing).

Table A-83

Youth Profile in 1990 by Declassification Status (PROFIL90)

	Classified Students		Declassified Students	
	%	n	%	n
Active, living independently, and socially involved	18.7	139,489	24.2	11,973
Independent in two of the above categories	42.0	314,073	59.6	29,417
Independent in one of the above categories only	8.0	60,128	3.5	1,722
Active but not independent	9.9	74,294	6.1	2,994
Not independent	19.0	141,700	6.7	3,285
Not independent and institutionalized	2.4	18,017	-	-

Note. $\chi^2(5) = 11{,}073.7$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (45.7% missing).

Table A-84

Declassified Youths' 1990 Profiles by Gender (D_SEX)

	Male Students		Female Students	
	%	n	%	n
Active, living independently, and socially involved	26.0	8836	20.3	3,137
Independent in two of the three domains	55.5	18,864	68.4	10,553
Either active or living independently and not socially involved	2.5	857	5.6	865
Active but not independent	8.1	2,753	1.6	241
Not active or independent	7.8	2,650	4.1	635
Institutionalized	-	-	-	-

Note. *$\chi^2(4) = 1691.340$, $p < .001$. Readers should exercise caution in interpreting this table due to high levels of missing data (missing 39.4%).

Table A-85

Declassified Youths' 1990 Profiles by Disability

	LD		ED		SI		MR		VI		HOH		OI		MH		DB	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Active, living independently, and socially involved	8,988	23.2	1,182	24.0	1,377	30.4	284	30.9	30	86.6	15	18.7	43	44.6	84	32.5	0	0
Independent in two of the three domains	23,945	62.2	2,026	41.1	2,615	57.7	636	69.1	5	13.4	43	54.1	54	55.4	70	27.0	24	100
Either active or living indep. and not socially involved	1,634	4.2	0	0	53	1.2	0	0	0	0	0	0	0	0	34	13.3	0	0
Active but not independent	2,375	6.2	540	10.9	0	0	0	0	0	0	9	10.9	0	0	70	27.1	0	0
Not independent	1,603	4.2	1,184	24.0	485	10.7	0	0	0	0	13	16.2	0	0	0	0	0	0
Institutionalize	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note. $\chi^2(32) = 4545.537$, $p < 001$.

Appendix B

Case Study Narratives

Reagan

Reagan is a 25-year-old White woman with short brown hair, and wide-set eyes. She has a beautiful smile, which she shares freely. She is thin and of average height.

Reagan's father was a career military officer. Consequently, her family moved often, sometimes overseas. Her mother is a registered nurse, and currently works in the public health field. Reagan has two siblings, both of whom are academically and socially successful; Reagan is the middle child.

Reagan has had serious health problems her entire life. She was hospitalized with a heart defect when she was 10 days old; had several heart catheterizations as a toddler; and had open heart surgery at age five to correct a hole between her heart ventricles and a narrowing of her aorta. As a young child, Reagan also had surgery to lengthen her palette. Before that surgery, she spoke with a lisp, and subsequently received speech therapy to improve her articulation. Reagan also had tubes put in her ears to address chronic ear infections, and had ear surgery to correct a hole in her left eardrum. She wore a hearing aide for a short time when she was in elementary school. Reagan's final surgery was intended to help with an irregularity in her shoulders called Sprengel's deformity. Her shoulders continue to slope downward, but it is not readily apparent. Because of all these surgeries, Reagan has several large scars on her torso.

Reagan's parents first noticed she was having difficulty with abstract reasoning when she was in kindergarten. Teachers at her parochial school did not share her parents' concerns, however; so no special education evaluation was done at that time. Reagan had been receiving speech therapy through the district when she was in kindergarten and first grade, but the service was discontinued after first grade. At that time, her teacher characterized Reagan as "a bright,

industrious child." She followed directions easily, and was reading above grade level. She was well liked by her peers, and was considered a positive influence on the class.

When Reagan was eight, her family lived in Greece. Here, in collaboration with the school, they had a psychological evaluation done. The psychologist found that Reagan's understanding of oral language was inconsistent. Specifically, she had difficulty retrieving specific words she wanted to use in conversation. Her oral expression was considered adequate, although her oral reading showed abundant word omissions and substitutions. Remembering what she had read was especially difficult for Reagan, and she had difficulties with visual tracking. Her math skills were in the average range for her age.

The family moved to Virginia when Reagan was nine, and Reagan was identified as having a learning disability. In 1984, at her three-year reevaluation, test results showed Reagan was functioning in the low-average range of intelligence. Particular weaknesses included general information, vocabulary, and attention to detail. She also exhibited difficulties with short-term memory. She was described as lacking self-confidence, particularly in relation to school work, but as having a generally optimistic outlook. The psychologist did not make a strong recommendation either for continuation or cessation of services, but services were continued based on Reagan's academic performance. When Reagan was in middle school, her IEP goals included improved general information, concrete reasoning, and self-concept. By ninth grade, she received only monitoring services, and could use the resource room for support as needed.

Reagan attended an academically competitive, public high school in a middle and upper middle class area. Seventy-two percent of the students from the high school went on to college. In high school, Reagan was perceived by her teachers as extremely well behaved, and anxious to please. She always applied herself to her school work -- completed assignments on time, was

rarely absent, and paid attention in class. However, Reagan felt socially isolated in high school. She had one good friend, but did not date, or belong to a large circle of friends. Most of her positive social contacts came from participation in the band. Reagan took a part-time job as a veterinarian's assistant while she was still in high school. She seemed to do well in that position. She later worked at McDonald's, but lost her job because she accepted foreign currency from a customer.

In eleventh grade, Reagan initiated cessation of special education services. She felt she did not require additional support, and was receiving adequate grades in her general education classes. The eligibility committee agreed with her request. Reagan finished high school with a 2.6 grade point average, and passed the Virginia minimum competency test. Her father spent many hours studying with Reagan and helping her with assignments. He had high expectations for her and pushed her to achieve, even beyond Reagan's personal ambitions or her mother's standards of attainment.

After high school, Reagan's parents encouraged her to enroll in a community college, which she did, although she was not particularly interested in furthering her education at that time. She took a part-time job as a cake decorator at a grocery store near her parents' house. She did well, and continued to work there for several years. She continued to live with her parents, and then after her parents divorced, she lived with her mother.

While she was doing well at work, Reagan was not faring as well at the community college. She was working so many hours as a cake decorator, she admits that she did not study as hard as she should have. "I was just too tired out." "I would get home from work exhausted and wouldn't want to study." "It was just laziness and I didn't care." "I kept trying to tell my parents

that I didn't want to go to school . . ." "The only reason I was going to school was to please my Mom, and I wasn't pleasing myself. "

Based on encouragement from her mother, Reagan enrolled in a dental assisting program that the Red Cross was offering. She enjoyed her training as a dental assistant, fit in very well with the other students, and received high praise for her competence in completing the necessary tasks. Reagan completed the program, which lasted one summer, and was placed in an on-the-job training site. Following this experience, she was hired by a local dental practice where she earned $6.50 per hour. When she left three years later, she was earning $8.00 per hour.

During this time, Reagan's social life improved; she dated a soldier stationed at the local military base. Both Reagan and her mother see him as an important influence in Reagan's social development and maturity because he exposed her to a variety of experiences (e.g., travel, going to restaurants, skiing). He was later transferred to a base in Hawaii, and the relationship ended.

In 1996, Reagan began exploring further training, and certification as a dental hygienist. She discovered that obtaining a certificate in dental hygiene would be less expensive and quicker in North Carolina than in Virginia. She failed to pass the entrance test for the dental hygiene program on two different occasions, but decided to move to North Carolina anyway to get a position as a dental assistant, and retake the exam after further preparation. It took Reagan some time to settle down in North Carolina. The first position she took as a dental assistant was with a dentist whom she did not like, so she quit. She worked as a hostess in a restaurant while she looked for another job in a dental practice. The next dental position was also problematic. Reagan lost the job when the dentist discovered that she was not a certified hygienist. Finally, Reagan was successful in finding another position, about half an hour's drive from her apartment. It paid $7.50 per hour to start, 50 cents less per hour than she earned in her former position. She

has done well in this position, and is currently training less experienced assistants. She finds her boss overly serious, however, and resents the fact that she has less responsibility in this practice than when she worked for the Virginia dentist. At the time of the interview she was earning $8.00 per hour. Currently, she is looking for a position closer to her home. She has had second thoughts about the dental hygiene program, because of her roommate's negative experiences in the program. Apparently, Reagan's roommate studies until 11:00 P.M. each night and has little time for social activities.

Since Reagan moved to North Carolina, she has developed an active social life. She claims it is very easy to meet people. She belongs to a gym where she works out several times a week, goes to dance clubs, and attends a local church. She was visibly pleased with her social accomplishments.

Reagan continues to receive some financial support from her parents, although she is taking increasing control of her own finances. "I'm working here as hard as I can to be everything I can be on my own -- without my parents." She recognizes that she still needs to improve her general knowledge and reading skills. She has subscribed to several magazines, and tries to force herself to read them, although she still has difficulty remembering what she reads.

Reagan is very proud of her independence and accomplishments, particularly since she moved to North Carolina. Over the past few years, she has attained residential independence, has achieved a level of vocational competence, and has found that she has valuable social skills for making friends. While Reagan has not achieved full financial independence, she has come a long way toward a satisfying, enjoyable adult life.

Reagan does not believe her disability affects her in her work or in her ability to maintain an apartment. She claims to have had trouble, initially, maintaining a budget. "I think I have finally gotten a handle on that, though." "Knowing when not to spend money was hard to learn."

She does not understand why she has not passed her dental examination. "I think it was because there was a lot of information about anatomy and physiology and dental material and radiology." "But I got a lot of extra books and I will study harder this time." "I think I will pass it this time." "I know it all comes down to reading, but I'm working on that."

Reagan's perseverance in studying, looking for jobs, and making social contacts has served her well. Like many young adults with disabilities, she has lost some jobs, and faced some academic difficulties. She has developed valuable social skills, however, and is determined to expand her professional opportunities.

Kevin

Kevin is a 25-year-old White man with blond hair. He is of average height and weight, and has an athletic appearance. He is concerned that his hair is thinning, and that he is gaining weight, but these characteristics would be unnoticeable to a casual observer. Despite his casual attire, Kevin's very short hair and good posture reflect his military training.

Kevin is the third of four children. He grew up in Maryland, having moved several times during his elementary years. His mother was a single parent who worked several jobs to support the family. Frequently, Kevin's oldest sister would watch the younger children.

As a youngster, Kevin was overweight and withdrawn. His behavior problems began when he was in early elementary school. He could not sit still in class -- talked at inappropriate times, made noise, and talked out of turn. Despite these difficulties, Kevin's grades were good. Kevin's doctor prescribed Ritalin to treat what was diagnosed as hyperactivity. The Ritalin calmed Kevin for about eight hours; after it wore off, he would be "wild." Based on a recommendation from school personnel, Kevin received counseling from a psychologist when he was in sixth grade.

In eighth grade, Kevin was referred for special education evaluation. At the time, he was failing math, science, and reading. Kevin lacked motivation and interest in school, had trouble sitting still, and frequently disrupted class. The school psychologist found Kevin very difficult to test because he was constantly talking and asking questions about the assessment. He would comment on the stupidity of the assessment tasks, and then would add, "I'll probably do it wrong." At the time of the initial assessment, Kevin was functioning in the average level in verbal and full-scale IQ, although there was a 13-point difference between his verbal (105) and performance IQ (92). His strengths were verbal reasoning, short-term memory, facility with

numbers, and calculations. In the assessment, Kevin scored below average on reading and written language scores, and showed some difficulty distinguishing essential and nonessential parts.

Kevin's evaluation demonstrated strong feelings of hostility, aggressiveness, and impulsivity. He reportedly tried to control his impulsivity through contriving social situations. He was most likely to lose control and act out when he was frustrated. Kevin's social relations were difficult, and he was insecure in social situations. Kevin believed other students saw him as "dumb and unattractive." He also lacked respect for authority.

Kevin was placed in a program for students with emotional disturbances called the Continuum for Personal Adjustment-Reach Program (CPA-R). Kevin's IEP initially called for consultation services, the least intensive, most integrated level of service. Over the next two years, he was eventually placed in a self-contained special education class. On several occasions, school personnel promised to mainstream Kevin, but repeatedly reneged on that promise. "Every time I thought I was going to get out, they would pull another trick to keep me in."

Kevin attended a rural high school where 25-50% of the students were from low-income families. Out of 490 students enrolled, 25% went to college and 5% pursued postsecondary vocational training. High school guidance counselors required Kevin to enroll in basic academic classes instead of more advanced ones because he was in special education. Kevin's behavior improved in high school. Kevin had three close friends who he saw frequently outside of school. He was on the cross country team in his senior year of high school, but did not participate in any other extracurricular activities.

In tenth grade, he was dismissed from special education; he was doing well in his classes, and was not seen as needing additional assistance. Despite this improvement, Kevin claims he

rarely studied. Typically, he did his homework on the bus. He passed all of the functional tests required for graduation, and received a diploma in 1989 with a 74 average.

After high school, Kevin worked briefly in an automobile transmission repair shop; worked as a manager in an auto parts store; and then enlisted in the Air Force. His primary goal in enlisting was to earn educational benefits to finance a college education.

Kevin remained in the Air Force for four years. He had a difficult time in basic training. The trainers "picked on him" and "got in his face." Kevin requested a position in mechanics, but was assigned to a missile maintenance base in Wyoming. He did not have any difficulty with the initial academic training provided in the Air Force, but he found his days in the service "very long." "The winter times were miserable because of the wind and the snow." Despite these difficulties, Kevin received several awards and promotions during his four years of service. Kevin enjoyed an active social life during his four years in the Air Force.

During his enlistment, Kevin enrolled in a community college in Wyoming, where he was stationed. Kevin later moved back home and enrolled at a local community college. He held several short-term jobs during that period -- pizza delivery, roofer, and landscaper. Last year, Kevin transferred to a large state university. He rents a room from his aunt and uncle who live within commuting distance of his university.

Because he injured his back while he was in the Air Force and has trouble with his prostate, he has a 20% disability, and receives extra veterans' benefits. He receives $500 per month from the Veterans Administration for 48 months. Up to $12,000 for tuition reimbursement are paid to the university as part of Kevin's veterans' benefits.

Academics continue to be a struggle for Kevin. He has a hard time applying himself to his studies. He likes to sleep and watch television, and feels time is passing very quickly. Kevin has

difficulty comprehending what he reads for class. His attention span is very short, and he has difficulty taking tests. He recognizes that the university has teaching assistants who can provide tutoring, but he has not requested help.

A 1995 assessment by the Veterans Administration found that Kevin's spelling was at the eighth grade level. He scored in the 58 percentile in reading, and the 81 percentile in math. His aptitude is strongest in mechanical reasoning, verbal reasoning, and numerical ability. He shows lower ability in spatial reasoning, word knowledge, and language usage. His manual speed and dexterity were quite poor.

Despite these academic difficulties, Kevin is socially well adjusted, is financially independent, and determined to succeed. Kevin's mother believes he suffers from low self-esteem. "He still doesn't think he's good looking or charming. He doesn't see that in himself, but other people see it." Kevin is quite religious, and attends church regularly; his mother considers this a source of strength for Kevin.

To this day, Kevin resents his special education placement, which is an open area of conflict with his mother. "Kevin insists to this day that I did not fight hard enough to keep him out." "But they would tell me that this is what needs to be done." "This is what the board of education says." "This is what we have to do."

Kevin and his mother also believe he was held back academically while he was in special education. "He would finish his work in the early part of the period, and then he would sit there the rest of the period and not do anything." Kevin considered special education a waste. "They didn't really teach us . . . they just told us to read the book and do the homework." "You didn't learn a thing -- not a thing."

While Kevin firmly believes that he never had an emotional disturbance, he wonders if he has a learning disability. "I have a hard time with abstract stuff, but anything I do with my hands; it just falls into place." "I know that if I find out I have a learning disability, I can get longer time to take tests." "That's what I want -- to be able to relax and block everything out."

LaDonna

LaDonna is a 25-year-old African-American woman with short black hair. She is of average height, and is slightly overweight. LaDonna has five children, ages 8, 7, 5, 4, and 3.

LaDonna began receiving special education when she was in kindergarten or first grade, and attended an elementary school out of her neighborhood to receive those services. Her mother believes she received services because she was excitable and had a temper, but that her academic performance in elementary school was fairly good. She was not a problem at home. In middle school, LaDonna continued to receive special education in a separate class setting with about 11 other students. LaDonna is not sure why she received special education. "Back in elementary . . . they had special classes, but I didn't think I really needed to be in them." "I don't know why they put me in them." "I remember when I was in special classes, I came in second in a spelling bee, even though I was in special classes." Records indicate she received services for a "developmental handicap."

LaDonna remembered high school fondly. "When I was in high school, I was on the track team, I was on the volleyball team, and the basketball team . . . I was really into school." She reported having close friends, most of whom were also in special education classes. She particularly liked math and art classes. "I used to look forward to going to school."

When she was in eighth grade, LaDonna was reevaluated for special education eligibility and achieved a full-scale IQ of 81. She described her declassification this way. "They gave me this test I had to pass to get out of special classes." "After I got out of special classes, I would have different teachers for every subject." It is unclear whether the declassification was planned based on improved performance, whether her performance on the IQ test made her unexpectedly

ineligible for services, or whether eligibility criteria for services under the developmental handicap category changed.

After being declassified from special education, LaDonna received one C, one D, and 16 Fs before dropping out of school. She earned only 1.5 of the 18 credits required for graduation in her three years of high school. Records suggest she was in remedial reading classes, but subsequent referral was made for special education eligibility.

When she was in her third year of high school, LaDonna became pregnant with her first child. Her mother does not think LaDonna intended to get pregnant, and insists she told LaDonna about birth control. "She was a follower." "She probably thought the guys were nice, and were going to help her."

LaDonna was sick much of the time during her pregnancy, and her school attendance became sporadic. She missed more than 90 days of school that year. Her mother would leave the house early in the morning, unaware that LaDonna was not going to school. Eventually, LaDonna dropped out of school after her baby was born. She continued to live with her mother, and began collecting Aid to Families with Dependent Children. She stayed on welfare for a few years; she continues to receive medical insurance for her children, but no longer receives income support.

After the birth of her second child, LaDonna took classes to prepare for her GED. "I was going to school to get my GED at a career center. I passed all the courses, and they gave me the paperwork, but I haven't gotten it yet." She would like to go back to get her GED, but has no definite plans to do so. "[My Grandma] tried to talk me into going because I had done so good in school, she wanted me to at least get my GED to get my diploma." LaDonna recognizes that she is ineligible for some jobs because she does not have a high school diploma.

LaDonna had a few jobs shortly after she left school -- one recycling cans, another selling sheets and tablecloths in a retail store. She also worked at a toy factory for three years. She earned $5.75 per hour and received benefits. The factory closed, and she was unemployed for a year before getting a job at a nursing home.

Currently, LaDonna works three days a week, eight hours per day in the kitchen of a different nursing home. She has held that position for a year and a half. She does not receive any benefits and earns $5.15 per hour. "When I first started off, it was real hard . . . I had to do a whole bunch of things at one time -- do the dishes, make up the trays, make up special trays for diabetics." She is used to the work now and seems to enjoy her job. "The people in the nursing home, they treat you real nice. They can't do nothing for themselves, so I help them out. They are fun to be around." LaDonna picks up work as a hairdresser occasionally to supplement her income: "I've been doing hair ever since I was in school . . . I put braids in, do permanents, curling it, cutting it -- I've been doing that for years." She has learned this skill from watching her mother, and she sees clients about three or four times a week.

LaDonna's two oldest children are boys who live with their father much of the time. The three youngest girls live with LaDonna. LaDonna's rent is $225 a month, and, with help from the girls' father, she has enough to support her family. Her sisters, mother, and a babysitter care for her children when she is at work. Earlier in the year, LaDonna was letting the children stay home from school; now, her grandfather takes them to school every day. "My family is real helpful."

Her mother feels as though LaDonna's learning problems may still affect her. She is concerned that LaDonna does not think things through enough. "I told her, 'you know it don't pay to do certain things because in the end it will be worse on you.'" She states, however, that LaDonna reads well, does a good job at work, and is a responsible mother.

Although LaDonna misses school, she feels as though she is doing well. "I'm okay, I think my reading skills -- sometimes I don't understand a certain word, and I have to think real hard, then I get it." LaDonna does not see many of her high school friends now; she socializes mostly with her sisters. "I work a lot. I don't go out partying. When I get home from work I usually want to go to sleep. The only thing I do is if people call me to do their hair." With the support of her family, LaDonna succeeds in maintaining her apartment, paying her bills, and taking care of her children.

Rosiland

Rosiland is a 25-year-old African-American woman. She is interested in her appearance, especially her nails, hair, and clothing. She is of average height and weight.

Rosiland's father was a police officer for 16 years, and now works as a paraprofessional in a local school district. Her mother has worked for the school board in a variety of positions, and is currently a paraprofessional in the special education program. Rosiland's parents recently divorced, but she has stayed close with both of them, and lives with her mother. Rosiland frequently speaks to her father on the telephone.

Rosiland is the younger of two children. She was an extremely active child; her mother believes she was hyperactive. She was a Brownie and a Girl Scout. She liked dolls and roller skating. Rosiland started kindergarten at age four, but was retained in first grade because school personnel felt she was too immature to begin first grade. The district tested her sight and hearing, and discovered that she had no hearing in her right ear. Her ear drum is not fully developed, and a hearing aide apparently would not help. When she was younger, the doctors discussed corrective surgery. They said it had a 50% chance of restoring her hearing, but the surgery was very expensive and the family decided against it.

When she was seven, Rosiland was assessed for special education eligibility. Her referral noted difficulty mastering mathematical concepts and logical thinking. It also stated that she was easily distracted and had a short attention span. Rosiland's scores on an IQ test showed functioning in the low average range. Strengths included auditory and visual memory. She had sight words and spelling skills in the mid-second grade range, and good arithmetic skills. She was not recommended for special education at that time, but received compensatory reading instruction throughout elementary school.

In middle school, Rosiland was evaluated for special education eligibility and was found eligible for services based on her hearing impairments. She began receiving speech therapy to help with her pitch, which was variable. Rosiland's teachers were told that she needed to sit at the front of the class so she could hear, but otherwise she did not receive any special education services.

Rosiland stopped receiving speech therapy when she started high school. Her mother claims that services were discontinued beause they were not offered in the high school; school records suggest Rosiland received special education until 11th grade. It is not clear if teachers received consultation support to help them meet Rosiland's needs or if Rosiland's progress was monitored by special education staff. She and her mother are sure she did not receive direct services in high school.

Rosiland attended a high school of 1,500 students, 10 to 25% of whom were from low-income families. She enjoyed high school -- played softball, was a cheerleader, and was in the chorus. She had an active social life. On the weekends through high school, she worked at Disney World in one of the park's restaurants. She also worked at Wal-Mart during the week. Rosiland had early release from high school as part of a school-work program. She worked about 20 or 25 hours per week between Disney and Wal-Mart.

When Rosiland was in 12th grade, she was in a car accident, and hit her head on the windshield. She was unconscious for 25 minutes, and had a concussion. She was in the hospital for seven days with a high temperature and vomiting. After the accident, Rosiland was unable to go to school due to headaches and neck pain, and her eligibility for special education was reinstated without a thorough eligibility determination. She receive homebound services from

December through May. She returned to school in time to graduate with her high school class. Rosiland graduated with a 1.8 grade point average, and ranked 290 in a class of 329 students.

After high school, Rosiland continued to live at home with her mother, and took a full-time job at the Epcot Center. As a full-time employee at Disney, Rosiland earned benefits. She supplemented her income with part-time jobs at a shoe store and a department store. She felt comfortable working in retail stores, because she had been doing it for so long. During her breaks at the Epcot Center, Rosiland would fall asleep and have trouble waking up. She began having severe headaches and would go into deep, coma-like sleeps. "I sleep for hours and hours." "It makes me real tired and weak." "Even when I wake up, I feel like I've been working all my life and just set down to take a break." Eventually, she went to her doctor, who referred her to a neurologist. After a long series of tests, the neurologist determined that Rosiland had a seizure disorder that caused her coma-like sleep; the seizure disorder is believed to be a result of the head injury Rosiland received in her car accident.

In 1995, Rosiland took a nail technician's class but was unable to complete the course because of her health problems. She has 10 hours left in the 380-hour course to receive a license. She hopes to go back soon to complete her training, although she never intended to be a full-time nail technician. She enjoys doing her own nails, and those of her friends.

Recently, Rosiland worked at a local middle school as an aide in the special education program. She worked with students with emotional disturbance and attention deficit disorder, which she enjoyed. She was forced to leave the job after about a month because of her seizure disorder. "Being as I have this problem, it's kind of hard for me to keep a job." "I can go and work and do well for so long, and then have another one." "People don't want you on the job if you have to take time off like that." She earned $563 per month, and the job offered excellent

health benefits. She planned to take a second job to supplement her income from the school district, but she was in another car accident, and suffered minor back and neck strain. Currently, she is receiving physical therapy three days per week to address it.

The position with the school district allowed Rosiland to have her own apartment for the first time. After she was forced to quit her job, the apartment became financially unfeasible, and she moved back in with her mother. Rosiland is thankful for the support from her mother whom she considers to be her best friend.

Rosiland received disability income from the state of Florida because she could not work after her accident. She applied for social security, but was denied. Several months ago, she reapplied and is awaiting a determination on her case. Rosiland's physician has prescribed several different types of medication since her accident, some of which are very expensive. She does not have health insurance now that she is out of work.

Rosiland's hearing impairment affects her in minor ways. If she is driving in the car, she has trouble hearing what passengers say. She has to put the phone to her left ear, and sometimes cannot hear it ring if she has the radio or television on. She sets the volume on the television somewhat higher than the average person would. Sometimes Rosiland has trouble with her sinuses, and when she gets a cold, her hearing gets worse.

Currently, Rosiland spends her days sleeping, watching soap operas, and shopping. She spends a great deal of time with her mother and friends. "If I get up in the morningtime, I have to get back home around twelve or one o'clock because . . . I have to come home and sleep for a while."

Rosiland's health problems, far more than her hearing impairment, severely limit her ability to work and live independently. Until her medical condition stabilizes, it is difficult to envision

how she can maintain employment. Rosiland is fortunate to have a supportive family, but without adequate medical insurance, the financial strain of her health needs may present further difficulties.

Scott

Scott is a 25-year-old White man with short, brown hair. He is of average height and weight, and is athletic in appearance. Both Scott and his parents describe him as shy, but he exhibits an intelligent, friendly, and relaxed manner.

Scott's parents have five children and have lived in Columbus, Ohio their entire lives. Scott's mother works in customer service. His father worked in data processing, computer programming, and systems analysis; he retired two years ago. Scott is the middle child.

As a youngster, Scott was very involved in sports, and got along well with his peers. He was very easygoing, and did well in school. In about fourth grade, Scott began receiving speech therapy to address an articulation problem. He primarily had trouble pronouncing the sounds for "r" and "l." He was pulled out of his general education class two or three times per week to receive speech therapy. Scott does not have a clear recollection of when he stopped receiving speech therapy, but believes it may have been when he went from elementary to middle school. He assumes he was doing better and no longer required the services.

In eighth grade, Scott took a series of achievement tests for high school placement. He scored particularly low on the English test and was placed in a remedial English class that supplemented his general ninth-grade English class. It is not clear from school records whether this was a special education class, or simply a remedial English class. The class enrolled about four students, who worked mainly on writing skills.

Scott went to an inner-city high school with 750 students. One-fourth to one-half of the students were from low-income families; 40% went on to college. Scott did not particularly like or dislike secondary school. He "never really stood out . . . just [went] with the flow." While Scott's parents felt he worked hard in high school, Scott characterized himself as lazy. Scott

graduated from high school in 1989 with a 2.5 grade point average. He ranked 48th in a class of 162.

Scott played four years of high school baseball and was ". . . more confident and outgoing in baseball." Scott also worked at a local supermarket for 20 to 25 hours per week during high school, where he earned $3.75 per hour.

Scott had several close friends in high school, many of them were in honors classes. Since his friends went to college, so did Scott. Scott attended Ohio State University, kept his job at the supermarket, and continued to live at home. He had some student loans, and worked 35 to 40 hours per week to pay for the subsequent quarter's tuition. Once or twice he did not have enough money to pay his tuition, so he took fewer classes, or took the quarter off. It took him just over five years to finish his degree.

College was something of an adjustment for Scott. He scored poorly on the English section of the ACT and a college placement test and, as a result, was enrolled in a lower-level English class his first quarter. Scott had some difficulty motivating himself to complete his school work, especially in his first year at Ohio State. "I remember my first quarter, my grades weren't the best." "I remember I failed one math class because I fell behind in the homework." "There was no one to tell you to do your stuff, so you don't do it and you fall behind."

Scott had mixed feelings about his experience at Ohio State. He appreciated that classes were large, and consequently, he did not stand out. However, some of the lectures were two hours long and had 700 students, which was overwhelming. Scott did not make many new friends in college, which he attributes to the school's size. However, several of his high school friends went to Ohio State and they remain close to this day.

Scott started as an accounting major in college, but did not care for it. He later switched to marketing, with some hesitation. "I'm not sure if I chose it because I needed to choose a major and graduate, or what." "I was interested in it, but looking back on it now, I see that a lot of marketing involved sales, and I don't enjoy that because I don't have an outgoing personality." "I'm more *customer relations* than *hard sales*."

After his first year of college, Scott moved into the home of his high school sweetheart's parents'. They had a third-floor attic where the two of them lived rent-free. They stayed there for a year and then got an apartment on their own. In his junior year in college, Scott married his girlfriend, and they now have a two-year-old daughter. Currently, Scott, his wife, and daughter live in a nicely furnished apartment close to Ohio State University. Scott's parents consider his wife a good influence and described her as a very strong person. They also see Scott as an excellent father.

While he was in college, Scott received a promotion from cashier to service manager. He enjoyed working with the customers, and made $5.50 to $6.00 per hour. When the personnel department at the grocery store discovered that Scott had graduated from Ohio State, they asked him if he was interested in managing a store. He knew that the position would entail long hours, and said he was not interested in the position at that time. He later transferred to the receiving department and got a raise in salary to $9.25 per hour.

When an opening arose in the supermarket's administrative office, the receiving manager recommended Scott for the position, and after a successful interview, Scott took a position as a reorder buyer. He now purchases all the general merchandise for the supermarket chain. He is a salaried employee earning $23,900 per year. Scott feels he has the potential to move up with this

firm. His is an entry-level professional position, but he his hoping for a promotion within six months.

Scott does not feel that his speech impediment has any detrimental affect on his adult life. ". . . my r's only seem to bother me when I really think about it too much." Scott attributes his shyness to his speech impairment. He believes he was hesitant to speak out in school because of his difficulties with articulation. Scott's parents sometimes have difficulty understanding him on the telephone if he speaks too quickly. He has a tendency to swallow his words.

Scott attributed much of his success to his wife. "I knew she would be disappointed if I didn't go [to college]." "We're like opposites -- she's a workaholic." "Right now, she's teaching and taking three classes to work on her master's." "I'm more laid back." "It's a good balance." "She's helped me to be more outspoken and outgoing, and I help her calm down and relax a little."

Appendix C

Interview Guides

Student Interview Guide

Introduction:

As we discussed on the telephone, I would like to talk with you over the next couple of hours about your experiences in school and what you have been doing since you left school. Before we start, I want to remind you that your participation is completely voluntary, and that everything you say will be kept confidential. If any question makes you uncomfortable or you do not want to answer for any reason, just say so. Also, if for any reason you wish to discontinue the interview at any time, you may do so. Do you have any questions before we begin?

1. Would you start by telling me what you have been doing since you left high school starting with the period right after high school and bringing me up to the present?

   (Prompts: Did you get a job right after high school? Where did you work, and what was your position? How long did you work there? Was that a full-time job or a part-time job? Do/Did you like that job? What in particular did you like or dislike about it?)

   (Prompts: What did you do after you left that job? Work, school, other?) (Document all jobs to date)

   (Prompts: Where are you working now? How long have you been working there? What are your responsibilities at work? Is that a full-time job or a part-time job? Do you like the job? What in particular do you like or dislike about it? Do you mind if I ask how much you earn? Do you get any health benefits, vacation days, or sick days?)

   (Prompts: Have you gone to college or taken any type of courses? If so, where did you go? What types of classes did you take? For how long did you take classes? Do/Did you enjoy it? What in particular did you like or dislike about it?)

2. Do you still live at home with your parents or are you living on your own? If living at home, do you like living there? What in particular do you like or dislike about living at home? Do you have any plans to move to your own apartment or house?

3. Is there any one person, event, or factor that has had a major influence on you to this point?

   (Prompts: A mentor? A career goal? An event? A religious belief? How exactly would you say this influenced you?)

4. Would you think back to the time when you were still in high school and tell me about your experiences in school?

   (Prompts: Did you like school? If so/not, what in particular did you like/dislike about it? Were there particular subjects you did well or poorly in? What was your favorite subject? Did you have a favorite teacher? What was so special about him/her?)

5. Tell me about your social life when you were in school.

   (Prompts: Did you have a group of friends or one close friend you hung around with when you were in high school? Did you date? Were you involved in any extracurricular activities like sports or clubs?)

6. Tell me about your ---------- (insert - learning disability, speech impairment, emotional problems, behavior problems, as appropriate).

   (Prompts: How did it affect your school work? What types of assistance did you receive in school to help address your disability? How did you feel about being in special education? Did you usually go to a special class for students with disabilities or did you receive help in a regular classroom? Did you feel that special education helped you in school? If so, in what ways?) Did anyone in school talk with you about your strengths and weaknesses or help you plan for your future?

7. While you were in middle/high school, you stopped receiving special education services. Do you remember that? Can you think back to that time in school and describe what happened and how you felt about leaving special education? How involved were you in the decision to stop receiving special education services? What were the specific circumstances that led to the decision?

8. After you left special education, how did you do in school? Did your ----------(insert - learning disability, speech impairments, emotional problems, behavior problems, as appropriate) cause you any difficulties? After you left special education, did you receive any extra help from tutors or teachers to help you with your school work? In what ways was that helpful?

9. In what ways was your immediate or extended family supportive of you at that time?

   (Prompts: Did they help you with homework? Motivate you to achieve? Discourage or encourage your aspirations?)

10. Is there anything else you would like to tell me about school? Do you think I have a good picture of what your experiences in school were?

11. Thinking again about the present, how, if at all, does your ---------- (insert - learning disability, speech impairment, emotional problems, behavior problems, as appropriate) affect you now that you are out of high school? Are there are strategies or techniques that have helped you deal with your ----------(insert learning disability, speech impairment, emotional problems, behavioral problems, as appropriate), and if so, what are they? Have you told your employer(s) that you have a (insert learning disability, speech impairment, emotional problems, as appropriate)? Have you shared that information with other friends or colleagues, or do you keep it to yourself? Is there anyone who helps you at work or at home to overcome areas of weakness?

    (Prompts: Does it affect you at work? In school? In taking care of your home, managing your money, making decisions? In making and maintaining relationships? In getting along with co-workers? In getting to and from work? In raising children? In reading, writing, or taking telephone messages?)

12. When you change jobs, start a new relationship, or move, does your (insert learning disability, speech impairment, emotional problems, as appropriate) re-emerge? If so, in what ways?

13. Have you received any services to help you with your ---------- (insert learning disability, speech impairment, emotional problems, behavior problems, as appropriate) since you left high school?

    (Prompts: What types of services have you received? Counseling? Do you know what agency provided the services? How long did you receive those services? Were they helpful? If so, in what ways were they beneficial? If not, why weren't the services beneficial?)

14. Based on your experiences, do you have any suggestions for what we should be doing to help students with disabilities to become successful students and adults? Is there anything in particular that was or would have been helpful for you?

Parent Interview Guide

Introduction:

As we discussed on the telephone, I would like to talk with you over the next couple of hours about (child name) experiences in school and what (child name) has been doing since leaving high school. Before we start, I want to tell you that your participation is completely voluntary and that everything you say will be kept confidential. If any question makes you uncomfortable or you do not want to answer for any reason, just say so. Also, if for any reason you wish to discontinue the interview at any time, you may do so. Do you have any questions before we begin?

1. Why don't you start by telling me about (child's name) experiences in school.

   (Prompts: When was (child name) identified as having a ----------(insert - learning disability, speech impairment, emotional problem, behavior problem, as appropriate)? Tell me about the process you went through when (child's name) ---------- (insert - learning disability, speech impairment, emotional problems, behavior problems, as appropriate) was identified. What types of difficulties was (child name) having in school that led to his/her placement in special education?)

   (Prompts: Were there particular subjects (child name) did well or poorly in? Did he/she like school? If so/not, what in particular did he/she like/dislike about it?)

2. How did (child's name) ---------- (insert - learning disability, speech impairment, emotional problems, behavior problems, as appropriate) affect his/her school work? What types of assistance did he/she receive in school to help address his/her disability? Did you feel that special education helped (child name) in school? If so, in what ways?

3. Tell me about (child name) social life? Did (child name) have a group of friends or one close friend he/she hung around with? Was (child name) involved in any extracurricular activities like sports or clubs?

4. While (child name) was in middle/high school, he/she stopped receiving special education services. Do you remember that? Can you think back to that and describe what happened that led to the decision to remove (child name) from special education? How involved were you in that decision? What were the specific circumstances that led to the decision?

5. After (child name) left special education, how did he/she do in school? Did his/her disability cause any difficulties? After (child name) left special education, did he/she receive any extra help from tutors or teachers to help with school work? Was that helpful?

6. Is there anything else you would like to tell me about (child name) school experiences? Do you think I have a good picture of what his/her experiences in school were?

7. Now would you tell me what (child name) has been doing since he/she left school starting with the period right after high school and bringing me up to the present?

(Prompts: Did (child name) get a job right after high school? Where did he/she work, and what was his/her position? How long did he/she work there? Was that a full-time job or a part-time job? Do/Did he/she seem to like that job? What in particular did he/she like or dislike about it?)

(Prompts: What did (child name) do after he/she left that job? Work, school, other? Document all jobs to date)

(Prompts: Where is (child name) working now? How long has (child name) been working there? What are his/her responsibilities at work? Is that a full-time job or a part-time job? Does he/she seem to like the job? What in particular do you like or dislike about it?)

(Prompts: Has (child name) gone to college or taken any type of courses? If so, where did he/she go? What types of classes did he/she take? For how long did (child name) take classes? Do/Did he/she seem to enjoy it? What in particular did you like or dislike about it?)

8. Does (child name) still live at home with you or is he/she living own his/her own? If so, do you envision (child name) moving to an apartment or house of his/her own? Are there particular difficulties that prohibit (child name) from living independently?

If not, has (child name) had any trouble handling the demands of maintaining a household?

9. How, if at all, does (child's name) disability affect him/her now that he/she is out of high school? Are there are strategies or techniques that have helped (child's name) deal with his/her ----------(insert learning disability, speech impairment, emotional problems, behavioral problems, as appropriate), and if so, what are they? Is there anyone who helps him/her at work or at home to overcome areas of weakness?

(Prompts: Does it affect him/her at work? In school? In taking care of a home, managing money, making decisions? In making and maintaining relationships?)

10. Would you tell me about any services (child name) has received to help him/her with his/her disability since leaving high school?

(Prompts: What types of services did he/she receive? Do you know what agency provided the services? How long did he/she receive those services? Were they helpful? If so/not, in what ways were they beneficial?)

11. Is there any one person, event, or factor that has had a major influence on (child name) to this point?

    (Prompts: A mentor? A career goal? An event? A religious belief? How exactly would you say this influenced (child name)?)

12. When changing jobs, starting a new relationship, or moving, does (child name) (insert learning disability, speech impairment, emotional problems, as appropriate) reemerge? If so, in what ways?

13. Based on your experiences, do you have any suggestions for what we should be doing to help students with disabilities to become successful students and adults? Is there anything in particular that was or would have been helpful for (child name)?

Vita

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National Academy of Sciences (7/87 - 12/87)
Research assistant for the Panel on Quality Control in Family Assistance Programs.

The Brookings Institution (6/86 - 8/86)
Intern.

Close Up Foundation (9/84 - 5/85)
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Pre-Schoolers' Workshop (5/83 - 8/83, 5/82 - 8/82)
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