

## Chapter 2: Youth with Disabilities Leaving Secondary School.

*Excerpted from: Changes Over Time in the Early Postschool Outcomes of Youth with Disabilities. A Report of Findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Transition Study-2 (NLTS2).*

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Dropout statistics for 1986 indicated that only 55% of dropouts under age 20 were employed, only 31% of male dropouts and one in seven female dropouts were working full-time, and although dropouts were fewer than 20% of the adult population, they constituted 66% of the national prison population (William T. Grant Foundation Commission on Work, Family and Citizenship, 1988). Since that time, the economic costs of dropping out have risen markedly as the workplace increasingly demands better-skilled and more technologically savvy workers. High school dropouts now are 72% more likely to be unemployed and earn 27% less than high school graduates (U.S. Department of Labor, 2005).

During the 1990s, as the economic consequences of dropping out were better understood, attention to ameliorating the high dropout rate among students with disabilities increased (e.g., Thurlow, Christenson, Sinclair, Evelo, & Thornton, 1995; Sinclair, Christenson, Evelo, & Hurley, 1998). In the early years of this century a federal commitment was made that "secondary school students with disabilities receive the support they need to complete high school prepared for postsecondary education or employment" (Office of Special Education Programs, 2001, p. 14). As a result, the Office of Special Education Programs (OSEP) funded the What Works Transition Synthesis Research Project and the National Dropout Prevention Center for Students with Disabilities in

2001 and 2003, respectively, to learn more about prevention and intervention strategies for students with disabilities who have dropped out of high school or are at risk for doing so.

Data reported by the states to OSEP annually suggest that efforts since the mid 1990s are paying off. OSEP reports that in the 1999-2000 school year, the dropout rate among youth with disabilities was 29.4%, a decline of 4.7 percentage points over 5 years (U.S. Department of Education, 2002). A comparison of findings regarding school completion from NLTS and NLTS2<sup>1</sup> permits a longer view of the changing pattern of school completion from 1987 through 2003. It also draws on reports of individual youth with disabilities or their parents, rather than relying on aggregate statistics, which can underestimate dropout rates (U.S. Department of Education, 2002; Wagner, 1991).

The following sections identify the rates at which youth with disabilities left high school in a 2-year period. Youth included in these findings from NLTS2 were all in high school in the fall of the 2000-01 school year and had left high school by the time of the 2003 interviews with parents and youth.<sup>2</sup> Youth in NLTS were in school in the fall of the 1985-86 school year and had left school by fall 1987. Rates are calculated by dividing the number of youth reported to have left school in a particular way (e.g., by graduating) by the total number of youth who had left school. Rates are reported for youth with different primary

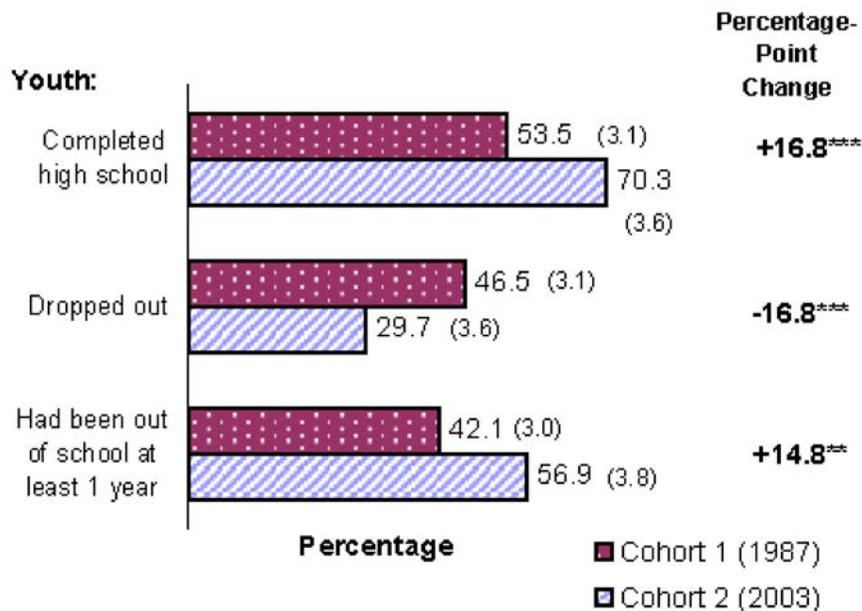
disability classifications,<sup>3</sup> and who differ in age, gender, household income, and race/ethnicity, when significant.

### Changes in School-Exit Status and Timing

Findings from NLTS and NLTS2 are consistent with state-reported data showing an increase over time in the graduation rate among youth with disabilities and a corresponding decline in the dropout rate (Exhibit 2-1). The proportion of school leavers who had received a high school diploma or certificate of completion increased from 54% to 70% between 1987 and 2003, and those leaving school without finishing declined from 46% to 30% ( $p < .001$  for both changes).<sup>4</sup> Although they are referred to here as dropouts, in cohort 1, this group included 6% of youth who were reported to have been suspended or expelled or left school for other reasons without finishing; the dropout rate for cohort 2 includes 1% of such school leavers. The rate of school completion in cohort 2 was the same as that in the general population, 70%,<sup>5</sup> whereas in cohort 1, it was much lower (54% vs. 76%,  $p < .001$ ).<sup>6</sup>

In addition to being more likely to have finished high school, cohort 2 youth also were more likely that their cohort 1 peers to have been out of school at least 1 year (57% vs. 42%,  $p < .01$ ). This change likely results at least in part from the fact that many more youth represented in NLTS2 were at the appropriate grade level for their age than was true among those represented in NLTS (Wagner,

**Exhibit 2-1**  
**Changes in School-Exit Status and Timing of Youth with Disabilities**



Source: NLTS Wave 1 parent interviews and NLTS2 Wave 2 parent/youth interviews.  
 Statistical significance: \*\*p<.01; \*\*\*p<.001.  
 Standard errors are in parentheses.

Cameto, & Newman, 2003). Further, the grades of youth with disabilities improved over time (Wagner, Newman, & Cameto, 2004). These two factors would result in more cohort 2 youth with disabilities graduating with their age peers in the general population and thus more 18- and 19-year-olds in that cohort being out of school longer. The fact that cohort 2 youth with disabilities had been out of school longer than cohort 1 peers could help explain differences in outcomes that are affected by the length of time youth were out of school (e.g. ever working or enrolling in postsecondary education since high school.)

### Differential Changes Related to Disability Category

Improvements in the school completion status of youth with disabilities were not distributed equally across disability categories (Exhibit 2-2). Only youth with learning disabilities, mental retardation, or emotional disturbances had a significant increase in the school completion rate and a corresponding decline in the dropout rate, ranging from 16 to 21 percentage points (p<.05 and p<.001). Increases for youth with learning disabilities or mental retardation brought their school completion rates to more than 70% in cohort 2; rates for youth with

speech, hearing, visual, or orthopedic impairments ranged from 79% to 94%. However, even with a 16-percentage-point increase in their school completion rate, only 56% of cohort 2 youth with emotional disturbances were reported to have finished high school, a rate similar to youth with other health impairments and multiple disabilities or deaf-blindness (59% and 51%, respectively). Youth with emotional disturbances or multiple disabilities or deaf-blindness also were the least likely to have finished high school in cohort 1 (39% and 26%).

In addition to increased school completion rates, youth with learning disabilities and

emotional disturbances were joined by those with speech, hearing, and visual impairments in being more likely in cohort 2 than previously to have been out of school at least 1 year. Increases ranged from 14 percentage points for youth with emotional disturbances to 34 percentage points for those with visual impairments ( $p < .05$  for both increases). These categories of youth also all experienced increases in the likelihood that they were at the typical grade level for their age (Wagner, Cameto, et al., 2003), as well as demonstrating improvements in their grades (Wagner, Newman, et al., 2004). However, similar changes in grade-for-age among youth with mental retardation or orthopedic and other health impairments and similar improvements in grades for youth with other health impairments or multiple disabilities apparently did not translate into increased probabilities that youth in those categories were leaving school earlier.

### Differential Changes Related to Demographic Characteristics

Changes in school completion status and timing occurred differently for youth with disabilities who differed in age, gender, household income, and race/ethnicity, as noted below.

**Age.** Improvements in school completion rates occurred only among youth with disabilities who were ages 15 through 18 (Exhibit 2-3); the rate for 19-year-olds already was the highest of any age group in cohort 1 and did not increase appreciably over time. The increase in the likelihood that youth with disabilities were at the typical grade level for their age appears to have had a particularly noticeable effect on the

youngest age group. Whereas in cohort 1, almost none of the 15-through 17-year-old school leavers had finished high school, in cohort 2, 44% of them had, largely 17-year-olds who graduated with their age peers in the general population. Further, 19-year-olds were much more likely in cohort 2 than previously to have been out of school at least a year (74% vs. 43%,  $p < .001$ ), suggesting many had graduated earlier.

**Gender.** Only boys with disabilities experienced significant improvements in school completion rates (Exhibit 2-4); they demonstrated a 20-percentage-point increase in their school completion rate and an 18-percentage-point increase in the likelihood of having been out of school at least a year. Although girls did not have similar changes, their dropout and completion rates in cohort 2 were not significantly different from those of boys, nor was the likelihood that they had been out of school at least a year.

**Household income.** Sizable changes in school-exit status occurred only among youth in the lowest and middle income groups (Exhibit 2-5), who had increases in school completion rates of 18 and 26 percentage points, respectively. Although these groups had similar completion rates in cohort 1, the larger increase among youth in the middle income group resulted in a significantly higher completion rate for them in cohort 2 relative to their lower-income peers (74% vs. 60%,  $p < .05$ ). In fact, the cohort 2 school completion rate of the middle income group did not differ markedly from that of the highest income group, whose school completion rate had been significantly higher than both the middle and lowest income groups in cohort 1 (71% vs. 48% and 41%, respectively,

$p < .001$  and  $p < .01$ ). In contrast, only youth in the highest income group experienced a significant increase in the proportion who had been out of high school at least a year (23 percentage points,  $p < .01$ ).

**Race/ethnicity.** Both white and African-American youth with disabilities had significant improvements in school completion rates, bringing to about three-fourths the proportion of youth in both groups who had completed high school. White youth were the only group to have a significant increase in the proportion who had been out of school at least a year, although all three groups had similar rates in cohort 2, ranging from 55% to 63% compared with 39% to 63% in cohort 1.

### Summary

Analyses reported in this chapter demonstrate substantial improvements in the school-exit status of youth with disabilities since the mid-1980s, with the completion rate increasing and the dropout rate decreasing by 17 percentage points. With these changes, 70% of cohort 2 youth with disabilities had completed high school. A sizable increase also was noted in the percentage of out-of-school youth with disabilities who had left school at least a year earlier, suggesting youth were increasingly likely to have left high school with their same-age peers in the general population.

Increases in school completion rates were significant for youth with learning disabilities, mental retardation, and emotional disturbances. Nonetheless, in both cohorts, youth with emotional disturbances had the lowest completion rate and highest dropout rate of any disability category; 44% left school without finishing in cohort 2. Improvements in school completion rates were largest for boys, youth ages

Exhibit 2-2

Changes in School-Exit Status and Timing, by Disability Category

	LD <sup>^</sup>	SLI	MR	ED	HI	VI	OI	OHI	MD/ D-B
<b>Percentage completing high school</b>									
Cohort 1 (1987)	56.1 (4.7)	60.2 (6.7)	50.7 (6.0)	39.4 (5.2)	77.1 (4.9)	85.1 (5.8)	84.8 (6.9)	62.3 (8.7)	26.2 (11.7)
Cohort 2 (2003)	74.0 (5.0)	79.4 (8.6)	71.8 (7.2)	55.8 (5.5)	82.2 (6.6)	94.0 (4.7)	85.9 (5.6)	58.6 (12.9)	50.8 (13.8)
Percentage-pt. change	<b>+17.9***</b>	+19.2	<b>+21.1*</b>	<b>+16.4*</b>	+5.1	+8.9	+1.1	-3.7	+24.6
<b>Percentage dropping out of high school</b>									
Cohort 1 (1987)	43.9 (4.7)	39.8 (6.7)	49.3 (6.0)	60.0 (5.2)	22.9 (4.9)	14.9 (5.8)	15.2 (6.9)	37.7 (8.7)	73.8 (11.7)
Cohort 2 (2003)	26.0 (5.0)	20.6 (8.6)	28.2 (7.2)	44.2 (5.5)	17.8 (6.6)	6.0 (4.7)	14.1 (5.6)	41.4 (12.9)	49.2 (13.8)
Percentage-pt. change	<b>-17.9***</b>	-19.2	<b>-21.1*</b>	<b>-16.4*</b>	-5.1	-8.9	+1.1	+3.7	-24.6
<b>Percentage out of high school at least 1 year</b>									
Cohort 1 (1987)	42.7 (4.6)	41.8 (7.0)	39.3 (5.5)	43.4 (5.1)	30.3 (5.2)	35.3 (7.6)	25.0 (8.0)	49.2 (8.8)	65.2 (12.2)
Cohort 2 (2003)	59.6 (5.5)	70.3 (9.7)	41.4 (7.6)	57.6 (5.4)	52.5 (8.3)	69.7 (9.0)	47.5 (7.9)	46.4 (12.8)	36.6 (12.5)
Percentage-pt. change	<b>+16.9*</b>	<b>+28.5*</b>	+2.1	<b>+14.2*</b>	<b>+22.2**</b>	<b>+34.4*</b>	+22.5	-2.8	-28.6

<sup>^</sup>LD=Learning Disability; SLI= Speech/Language Impairment; MR= Mental Retardation, ED= Emotional Disability; HI= Hearing Impairment; VI= Visual Impairment; OI= Orthopedic Impairment; OHI= Other Health Impairment; MD/D-B= Multiple Disabilities/Deaf-Blindness

Exhibit 2-3

Changes in School-Exit Status and Timing of Youth with Disabilities, by Age

	15 through 17	18	19
<b>Percentage completing high school</b>			
Cohort 1 (1987)	6.5 (4.4)	44.7 (5.3)	74.1 (3.7)
Cohort 2 (2003)	43.7 (10.1)	70.1 (5.4)	80.1 (4.7)
Percentage-pt. change	<b>+37.2***</b>	<b>+25.4***</b>	<b>+6.0</b>
<b>Percentage dropping out of high school</b>			
Cohort 1 (1987)	93.5 (4.4)	55.3 (5.3)	25.9 (3.7)
Cohort 2 (2003)	56.3 (10.1)	29.9 (5.4)	19.9 (4.7)
Percentage-pt. change	<b>-37.2***</b>	<b>-25.4***</b>	-6.0
<b>Percentage out of high school at least 1 year</b>			
Cohort 1 (1987)	45.4 (7.7)	38.7 (5.0)	42.9 (4.1)
Cohort 2 (2003)	31.2 (9.1)	44.6 (5.8)	74.0 (5.1)
Percentage-pt. change	-14.2	+5.9	<b>+31.1***</b>

Exhibit Sources: NLTS Wave 1 parent interview and NLTS2 Wave 2 parent/youth interviews.

Statistically significant difference in a two-tailed test at the following levels: \*p<.05; \*\*p<.01; \*\*\*p<.001  
Standard errors are in parentheses.

15 through 18, for those who were white or African-American, and those in the lowest or middle third of the household income distribution. In fact, the 26-percentage-point increase in school completion among youth in the middle income group eliminated the significant disadvantage relative to higher-income peers that was apparent in cohort 1. Outcomes of youth with disabilities reported in subsequent chapters may well reflect the higher school completion rate for youth with disabilities as a whole and for the sub-groups that experienced these increases.

**Exhibit 2-4**

**Changes in School-Exit Status and Timing of Youth with Disabilities, by Gender**

	Boys	Girls
<b>Percentage completing high school</b>		
Cohort 1 (1987)	52.4 (3.8)	56.3 (5.7)
Cohort 2 (2003)	72.4 (4.3)	66.4 (6.4)
Percentage-pt. change	<b>+20.0***</b>	+10.1
<b>Percentage dropping out of high school</b>		
Cohort 1 (1987)	47.6 (3.8)	43.7 (5.7)
Cohort 2 (2003)	27.6 (4.3)	33.6 (6.4)
Percentage-pt. change	<b>-20.0***</b>	-10.1
<b>Percentage out of high school at least 1 year</b>		
Cohort 1 (1987)	41.4 (4.7)	43.5 (6.7)
Cohort 2 (2003)	58.9 (4.7)	52.9 (6.7)
Percentage-pt. change	<b>+17.5**</b>	+9.4

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**Exhibit 2-5**

**Changes in School-Exit Status and Timing of Youth with Disabilities, by Household Income and Race/Ethnicity**

	Income			Race/Ethnicity		
	Lowest	Middle	Highest	White	African-American	Hispanic
<b>Percentage completing high school</b>						
Cohort 1 (1987)	40.9 (6.2)	47.7 (6.2)	71.2 (4.6)	54.1 (3.8)	52.7 (6.5)	43.7 (13.5)
Cohort 2 (2003)	59.7 (6.9)	73.7 (7.0)	81.1 (5.7)	71.7 (4.4)	74.8 (7.2)	59.8 (11.7)
Percentage-pt. change	<b>+18.8*</b>	<b>+26.0**</b>	+9.9	<b>+17.6**</b>	<b>+22.1*</b>	+16.1
<b>Percentage dropping out of high school</b>						
Cohort 1 (1987)	59.1 (6.2)	52.3 (6.2)	28.8 (4.6)	45.9 (3.8)	47.3 (6.5)	56.3 (13.5)
Cohort 2 (2003)	40.3 (6.9)	26.3 (7.0)	18.9 (5.7)	28.3 (4.4)	25.2 (7.2)	40.2 (11.7)
Percentage-pt. change	<b>-18.8*</b>	<b>-26.0**</b>	-9.9	<b>-17.6**</b>	<b>-22.1*</b>	-16.1
<b>Percentage out of high school at least 1 year</b>						
Cohort 1 (1987)	46.0 (6.1)	41.0 (6.0)	31.3 (4.7)	38.9 (3.6)	43.4 (6.2)	62.8 (12.6)
Cohort 2 (2003)	56.3 (6.9)	51.6 (7.7)	53.9 (7.2)	54.7 (4.9)	62.6 (7.7)	60.2 (11.3)
Percentage-pt. change	+10.3	+10.6	<b>+22.6**</b>	<b>+15.8**</b>	+19.2	-2.6

Exhibit Sources: NLTS Wave 1 parent interview and NLTS2 Wave 2 parent/youth interviews.

Statistically significant difference in a two-tailed test at the following levels: \*p<.05; \*\*p<.01; \*\*\*p<.001  
Standard errors are in parentheses.

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- ## Endnotes
- Youth for whom data are available for NLTS (1987) and NLTS2 (2003) are referred to as cohort 1 and cohort 2, respectively. For both groups of youth, 19% were 15 through 17, 31% were 18, and 50% were 19.
  - Interviews were conducted between April and November of 2003.
  - Because there are too few youth in the category of deaf-blindness to report separately, they have been combined in these analyses with the category of multiple disabilities.
  - This graduation rate for cohort 1 is lower and the dropout rate higher than rates reported for the full NLTS sample (Wagner, 1991; Wagner, 1993) because the analyses reported here exclude NLTS youth who were older than 19, many of whom stayed in high school through age 21, thereby increasing the school completion rate for the full NLTS sample relative to the subsample included in this report.
  - Calculated for out-of-school 15-through 19-year-olds using data from the second wave of the 1997 National Longitudinal Survey of Youth (U.S. Department of Labor, 2003).
  - Calculated using data from the years 1979 through 1983 from the National Longitudinal Survey of Youth (U.S. Department of Labor, 2004).