Rowan University Rowan Digital Works

Theses and Dissertations

7-10-2012

# The differential impact of school absences on general and special education high school students

**Carly Stranges** 

Follow this and additional works at: https://rdw.rowan.edu/etd

Part of the Child Psychology Commons, and the Student Counseling and Personnel Services Commons

#### **Recommended Citation**

Stranges, Carly, "The differential impact of school absences on general and special education high school students" (2012). *Theses and Dissertations*. 250. https://rdw.rowan.edu/etd/250

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

## THE DIFFERENTIAL IMPACT OF SCHOOL ABSENCES ON GENERAL AND SPECIAL EDUCATION HIGH SCHOOL STUDENTS

by Carly A. Stranges

### A Thesis

Submitted to the Department of Educational Services/Instruction College of Education In partial fulfillment of the requirement For the degree of Master of Arts at Rowan University April 12, 2012

Thesis Chair: Terri Allen, Ph.D.

© 2012 Carly A. Stranges

# Dedication

I would like to dedicate this manuscript to my father, Dr. Vincent Stranges, for introducing me to the field of school psychology and encouraging me to pursue my dreams.

# Acknowledgements

I would like to express my appreciation to both Dr. Roberta Dihoff and Dr. Terri Allen for their patience and guidance throughout the process of writing this research, as well as my fellow classmates for the support and motivation they provided to get through this extremely hectic year.

#### Abstract

## Carly A. Stranges THE DIFFERENTIAL IMPACT OF SCHOOL ABSENCES ON GENERAL AND SPECIAL EDUCATION HIGH SCHOOL STUDENTS 2011/12 Terri Allen, PhD. Master of Arts in School Psychology

The purpose of this study was to examine the impact of absenteeism on students in general education and students in special education. Archival data from a group of 249 students who completed 9th grade in June 2011 were analyzed in order to examine the relationship between attendance rates and grade point averages. Research questions included: Is there a significant correlation between school attendance and academic achievement? Is there a significant difference in the correlations between attendance and academic achievement for students in special education and for those in general education? Is there a difference in the attendance rates of students in general education and those in special education? Results found that a similar correlation was shown between attendance rates and GPA for students in special education and those in general education. However, students in special education showed to have a significantly lower GPA and significantly lower attendance rates than those in general education.

# **Table of Contents**

Abstract	V
Chapter 1: Introduction	1
1.1 General Background for the Study	1
1.2 Purpose of the Study	1
Chapter 2: Literature Review	3
2.1 Attendance and Academic Performance	4
2.2 Attendance and Students in Special Education	6
Chapter 3: Methodology	12
3.1 Materials	12
3.2 Procedure	12
Chapter 4: Results	14
4.1 Findings	14
4.2 Summary	14
Chapter 5: Discussion and Conclusion	16
5.1 Summary and Integration of Results	16
5.2 Conclusion and Recommendations	16
List of References	20

#### Chapter 1

#### Introduction

#### **General Background**

Education is generally believed to be a force for improving one's life's outcomes (Brodbelt, 1985). It's clear that in order for students to benefit from the educational process they have to attend and actively participate. School absenteeism and low academic achievement are frequently cited and on-going serious concerns by educators (Jones, 1931), and political leaders alike (Maxwell, 2012). Research has demonstrated a significant link between school attendance and academic achievement (Brocato, 1989; Clump et al., 2003; Friedman, Rodriguez & McComb, 2001; Jones, 1931; Marburger, 2001; Stanca, 2006; Thompson-Hoffman & Hayward, 1990). Less research has been done on the link between school attendance and academic achievement of those students who are most at risk (Crespo & Michelence, 1981; Dunn, Chambers & Rabren, 2004; Kemp, 2006; MacMillan, 1991; McMillan & Reed, 1994; Thompson-Hoffman & Hayward, 1990; US Department of Education, 2002; Wagner, 1991; Weitzman, 1985; Willner, 1993; Zigmond & Thornton, 1985). The present study attempted to look at the link between school attendance and academic achievement in general education students and those students who are most at risk.

#### Purpose

The purpose of this study was to examine the impact of absenteeism on students in general education and students in special education in attempt to create a more productive approach to handling the attendance issue amongst students in special education.

## Hypotheses

The hypotheses in this study include:

1. There is a strong correlation between school attendance and academic performance.

2. Students in special education are more severely impacted by not attending school compared to students in general education.

3. Students in special education are absent more often than those in general education.

## Summary

This study examined the impact of absenteeism on academic performance students in general education and those in special education. Attendance rates and grade point averages were collected from archival data from freshman students in the 2010-2011 school year. Data was collected and analyzed to show the difference of impact of higher absence rates on grade point averages in the two types of students.

#### Chapter 2

#### **Literature Review**

Education has proven to be one entity that continually does good for an individual, whether it be the social adjustment that it helps create for young children or the future that it helps develop for those later in life. Even our president, Barack Obama, has decided to rekindle the debate on raising the required attendance age in our country (Maxwell, 2012). Obama's rationale comes from the importance of school attendance for the future of the students, and is supported by research that has shown that if students perceive their experience in school as meaningful to their future goals, they will be more motivated to stay in school (Dunn, Chambers & Rabren, 2004). This study addresses the importance of attendance in school and, more specifically, how students in regular and special education can be affected differently by not being in attendance.

The importance is that in order for learning to take place, the learners must be in attendance, and a consistently high level of attendance is necessary for learning. In other words, "learning is dependent upon the availability of the learner" (Brodbelt, 1985). This assumption comes from the idea that being in school allows for a student to receive instruction from educators and a lack of attendance puts a limit on how much a student can benefit from in-school instruction. More focus has been brought onto this idea in the recent years where studies have shown the effects of attendance on academic performance (Brocato, 1989; Clump et al., 2003; Jones, 1931; Marburger, 2001; Stanca, 2006).

#### **Attendance and Academic Performance**

The issue of school absenteeism isn't new, and research has been accumulating about the importance of attendance in class. The positive relationship between attendance and academic achievement has been found by numerous researchers going back to the 1930's (Brocato, 1989; Jones, 1931). Research has shown that fewer absences a student has during a school year, the higher the student's grade point average (Jones, 1931). Other research has found that attending class significantly increases random test scores throughout a school year, which continues to support the idea that attending is very influential on a student's overall grade point average (Clump et al., 2003; Jones, 1984). The idea of whether grades are more severely affected by the greater amount of absences hasn't been researched quite as much as the idea of low amounts of absences showing higher grades. However, one study showed that excessive absenteeism has a large and significant effect on academic performance (Stanca, 2006). More specifically, a study that looked at absenteeism and exam performance matched information on student attendance at each class with records of the class meeting when the material corresponding to each question was covered. They found that students who missed class on a given date were significantly more likely to respond incorrectly to questions relating to material covered that day than were students who were present (Marburger, 2001).

Absenteeism has been considered a "downward spiral" because research has found significance in both relationships where absences from class cause lower grades, as well as lower grades causing increased absences (Jones, 1984). Researchers found that students with fewer absences have higher grades and came up with the idea that better

attendance might help produce better grades, or the desire for better grades might motivate better attendance (Friedman, Rodriguez & McComb, 2001). Other research supports this claim in saying that students who are "more able, work harder, or are more motivated" tend to have higher attendance rates (Stanca, 2006). On the other hand, those who are not motivated tend to have lower grades (Thompson-Hoffman & Hayward, 1990).

Three main predictors have been found to be the most common amongst special education and general education students who drop out of school: lack of academic success, lack of involvement in school activities, and past absenteeism (Kemp, 2006). Overall we see that academic failure is a primary reason why students with and without disabilities drop out of school (Kemp, 2006; Sinclair, 1994; Wagner, 1991). Specifically, failing a course and getting poor grades are two reasons students drop out prior to graduating (Finn, 1993; Kemp, 2006; Thompson-Hoffman & Hayward, 1990; Wagner, 1991). Even more specifically, when students are held back a grade in school, they are more likely to drop out (Finn, 1993; Thompson-Hoffman & Hayward, 1990). Roderick (1994) found that students who were held back one grade had a 50% chance of dropping out compared to students who were not held back, and also found that students who were held back two grades increased their drop out chance to 90%.

Disengagement from school is another predictor in a student dropping out of school. Disengagement can include curricular and extracurricular activities (Kemp, 2006). Characteristics of students who disengage have shown to have multiple unexcused absences, minimal involvement in extracurricular activities, and involvement in negative social interactions with peers and school personnel (Finn, 1993; Kemp, 2006;

Thompson-Hoffman & Hayward, 1990; Wagner, 1991). This is a process that is considered to be "progressive", where it can start as early as elementary school, and a major predictor of disengagement is number of absences (Finn, 1993). Research has shown that the total number of days absent is significantly related to students' decisions to drop out of school (Kemp, 2006), meaning the student has less of a chance of *engaging* in school if they are not present. In consideration of engagement, students who were members of school groups and clubs were significantly less likely to be absent frequently, receive a failing grade, and drop out (Wagner, 1991).

#### **Attendance and Students in Special Education**

Students in special education require time in the classroom in order to benefit from the specialized teaching and in-class supports that are provided to help them succeed academically (Geary, 2004). One study found that attendance rates for students in special education are lower than for students in general education at the elementary, middle, and high school levels (Willner, 1993). It was discussed that attendance rates vary by school and district, and that where general education attendance rates are high, so are special education attendance rates. However, they still found that with very few exceptions, the special education rates continue to be the lower of the two (Willner, 1993). Researchers have found that only 5% of students in special education dropped out of school when they missed less than ten days during a school year. This number doubled when they were absent between twenty-one and thirty days, and reached a high of 27% when they were absent over thirty days (Wagner, 1991). Even with the few studies mentioned about absenteeism being more prevalent in students in special education, this topic has scarcely been studied. Results from the limited research that

focuses on students in special education shows that the highest tendencies to drop out were those with high absenteeism and course failure (Dunn, Chambers & Rabren, 2004; Wagner, 1991).

According to previous research, at-risk students show persistent patterns of underachievement and social maladjustment in school, leading to their failure to finish high school (McMillan & Reed, 1994). Of the three drop out predictors that were previously listed and shared amongst all students alike (lack of academic success, lack of involvement in school activities, and past absenteeism), students in special education were significantly more affected by all three of them (Kemp, 2006). Unfortunately fewer studies have examined the specifics about why students in special education are more affected by these three variables. Of research that we do have, students in special education have shown to have lower grades (Thompson-Hoffman & Hayward, 1990), more negative attitudes toward school in general (MacMillan, 1991), and higher rates of absenteeism and tardiness (Crespo & Michelence, 1981; Weitzman, 1985; Zigmond & Thornton, 1985) compared to students in general education, and overall, are considered as having "a cluster of school performance problems" (Wagner, 1991). These students also show a much higher rate of dropping out of school, where recent data has shown at least a two times greater chance compared to their peers (Dunn, Chambers & Rabren, 2004; US Department of Education, 2002). Drop out rates have shown to vary by disability, where students with mild disabilities, including learning disabilities and behavior disorders, have the highest rates of dropping out compared to more students with more severe disabilities (Dunn, Chambers & Rabren, 2004). According to statistics from the US Department of Education, 50.6% of students classified as having emotional

disturbances, 27.1% of students with learning disabilities, 24.9% of students with mental retardation, 11.8% of students with visual impairments, and 9.5% of students with Autism drop out of school after the age of fourteen (US Department of Education, 2002). Although the type of disability really shows a significant predictor of dropping out, reasons for dropping out and perceptions of school expectations are similar for all classification of special education (Dunn, Chambers & Rabren, 2004).

#### **Improving Attendance for Students At-Risk**

According to previously described research, students in special education have lower attendance rates, lower grades, and a higher chance of dropping out of school (Crespo & Michelence, 1981; Dunn, Chambers & Rabren, 2004; Kemp, 2006; MacMillan, 1991; McMillan & Reed, 1994; Thompson-Hoffman & Hayward, 1990; US Department of Education, 2002; Wagner, 1991; Weitzman, 1985; Willner, 1993; Zigmond & Thornton, 1985). These students have special needs, and these needs include interventions to prevent each of these pieces from happening. Each piece adds to the next, in that not attending will cause low grades, and that low grades could cause the student to give up on school completely, disengage, and drop out (Kemp, 2006). Different intervention programs have been tried and have shown success, but overall only little research has been conducted to address this issue. What has been found is that prevention programs should focus on increasing students' participation in school programs, and that this should start as early as elementary school (Kemp, 2006). Students who were academically successful were more likely to be involved in extracurricular activities and tended to be more involved in school overall (McMillan & Reed, 1994). Unfortunately, at-risk students don't have the same opportunities to take

part in extracurricular activities because of ability and eligibility issues, so programs should tend to the special needs of these students and be able to provide activities that they can handle, take part and succeed in (Kemp, 2006).

Other research has suggested abandoning the use of retention and to tailor programs to the students' needs by creating a mix of academic and extracurricular experiences that can allow them to feel a sense of success (Kemp, 2006; Roderick, 1994). Another study looked at vocational programs and found that students in special education who took part in them were more engaged in school (Rylance, 1997; Wagner, 1991). This supports the idea that if a student sees their schooling as a way to further the future, they will be more motivated (Dunn, Chambers & Rabren, 2004). Another program that has shown success, the Check and Connect Program, provides mentors to help students re-engage in school and constantly monitors and addresses the amount of engagement the student has taken part in. Overall those who participated in the program showed to be more engaged in school and more likely to graduate compared to those who do not (Sinclair, 1994).

Having someone who is aware of what and how you are doing in school seems to be beneficial for students in both general and special education by just providing them the sense that someone cares about their performance in school and wants them to succeed (McMillan & Reed, 1994). Research has aimed to find out what enables students to succeed academically. One study looked at the attributes in students in special education who *do* succeed, or those who they considered resilient (McMillan & Reed, 1994). Findings show that at-risk students who are successful have supportive adults in their lives, including parents, teachers and other school personnel. These adults help with

building the self-esteem and self-confidence of the student, therefore allowing them to have a sense of competency. Research has shown that students benefit from the "hammering", "never letting up" attitude from school personnel and consider it as essential to their staying in school (Benz, Linstrom & Yovanoff, 2006; Dunn, Chambers & Rabren, 2004). Another intervention for this issue is counseling. Research has shown that students in special education who received counseling services were less likely to drop out, and that students who did drop out believed that counseling could have prevented it (Kemp, 2006; Roderick, 1994; Rylance, 1997).

#### **This Study**

Past literature shows the adverse effects of being absent from school and how students in special education miss more often than students in general education, leading to disengagement and higher rates of dropping out (Kemp, 2006; Sinclair, 1994). This study addresses the following question: If all students are affected by not attending school and students in special education are absent more frequently, are students in special education also more affected by not attending? Exploration of this issue could lead to a more productive approach to handle the attendance issue amongst students in special education, for example, better ways of catching them up on what they miss when they are out or better yet, programs that prevent these students from missing to begin with. If individualized educational programs are designed to accommodate the needs of the students in special education to make them successful academically, and research shows that (a) students in special education are more dramatically affected by the predictors associated with dropping out of school compared to their peers, and (c) the little amount

of research on intervention programs for these students has shown to be successful, then it only seems appropriate to make changes in the way schools attend to attendance and school engagement of these students.

#### Chapter 3

#### Methodology

This research aimed to analyze the affects of absenteeism on students in both general and special education. Research questions included: Is there a significant correlation between school attendance and academic achievement? Is there a significant difference in the correlations between attendance and academic achievement for students in special education than for those in general education? Is there a difference in the attendance rates of students in general education and those in special education? The methodology of this research is explained below.

#### Materials

Archival data from a group of 249 students who completed 9th grade in June 2011 from a public school in Millville, New Jersey were analyzed in order to examine the relationship between school attendance and academic achievement. Archival data included attendance records and grade point averages for 83 students in special education; 83 students in general education, who had matched amounts of absences as the prior group, and their grade point averages; and a randomly selected 83 students in general education.

#### Procedure

Attendance rates and grade point averages were collected for 83 students classified for special education and 83 students in general education. The two groups were matched for attendance rates. The relationship between students' attendance and GPA for the combined groups was analyzed using a Pearson Product Moment Correlation using SPSS software.

Separate Pearson Product Moment Correlations were run for the students in special education and those in general education in order to determine if there was a differential impact of school attendance on the GPA for each of the two groups.

An additional group of 83 students in general education were randomly selected in order to explore whether attendance rates were different between students in special education and those in general education. The attendance rates for the randomly selected (non-matched) students in general education were compared to the attendance rates of the 83 students in special education using an Independent Sample t-Test.

#### Chapter 4

#### Results

This research was designed to show the differential impact of absences on special education and general education students. It was hypothesized that there would be a strong correlation between school attendance and academic performance, students in special education are more severely impacted by not attending school compared to students in general education, and students in special education are absent more often than those in general education.

#### Findings

There was a significant negative correlation between attendance rates and grade point averages for the combined group of students in special education and general education (matched for attendance) (r=-.496, p<.000). A similar correlation was found between attendance rates and grade point averages for students in general education (r=-.549, p<.000) and students in special education (r=-.586, p<.000). There was a very significant difference between the grade point averages of the students in general education (M=2.69) compared to those in special education (M=1.89), (t=7.47, df=164, p<.000). The attendance rates of students in special education (M=12.46) were significantly lower than the attendance rates of the randomly selected students in general education (M=5.77).

#### Summary

This research shows that students in special education and students in general education are both significantly affected by not attending school. The difference of effect was shown in the academic achievement between the two groups, where the GPAs of

students in special education were much lower. Findings also show that, overall, students in special education are absent more frequently than students in general education.

#### Chapter 5

#### **Discussion and Conclusion**

#### **Summary and Integration of Results**

Attending school is vitally important for all students, whether they are in general education or special education. A significant correlation was found between attendance and academic achievement in the present study. The relationship was similarly significant for students in general education and students in special education. Students in special education are at increased risk for low student achievement because they are absent more frequently than those in general education, especially in light of the fact that the grade point averages are lower for students in special education. Schools should make efforts to increase attendance rates for all of their students if they want to raise academic performance. Special efforts should be made to address the low attendance rates for students in special education attendance rates for students in special education attendance rates for students in the set of address the low attendance rates for students in special education attendance rates the likelihood of drop outs.

#### **Conclusion and Recommendations**

The first finding in this study was the relationship between attendance and academic achievement. The basis of this goes back to the 1930's, when a researcher looked at the attendance pattern of students and found that those who had fewer absences also had higher grades (Jones, 1931). Since then numerous researchers have found similar results for students in primary through high school levels, in both general and special education, all supporting the idea that attending is essential for academic achievement (Brocato, 1989; Clump et al., 2003; Jones, 1931; Marburger, 2001; Stanca, 2006). There is clear evidence from this study and past studies showing that if schools

want students to succeed, they need to pay close attention to their students' attendance patterns.

The relationship between attendance and achievement shows school officials the need to put time and effort into creative and effective programs to prevent absenteeism from happening. As soon as any student begins to show a pattern of missing school or being late for school, school personnel need to address the issue and solve it immediately. Schools should have a plan for when this pattern begins to show in individual students and not wait for it to get worse. Efforts need to be made, for example, by contacting parents or guardians and arranging a meeting or a home visit to discuss the issue, explaining to the parents about the abundant research showing the significant relationship between attendance and grades, and look at the sources of why the student is absent. Information can be collected from a parent, guardian or other outside source that the student could refuse to share with the school staff, including feelings of incompetency from their inability to succeed, classes being too hard for them, the possibility of being teased or made fun of, and other reasons as to why they wouldn't want to attend. Past research has shown that students prefer to attend school when they are succeeding academically, and are more likely to be absent when they are not successful (Friedman, Rodriguez & McComb, 2001). Whatever problem exists that is causing the student not to attend needs to be assessed and addressed as quickly as possible because academic problems are apt to continue to occur with accumulated absences, ultimately leading to an extremely high risk for dropping out (Brocato, 1989; Clump et al., 2003; Finn, 1993; Jones, 1931; Kemp, 2006; Marburger, 2001; Stanca, 2006; Thompson-Hoffman & Hayward, 1990; Wagner, 1991).

The second finding in this study indicated that students in special education were absent more often than students in general education, which is also supported by previous research (Crespo & Michelence, 1981; McMillan & Reed, 1994; Weitzman, 1985; Willner, 1993; Zigmond & Thornton, 1985). This study found that students in special education have lower grades compared to students in general education, and this is supported by previous research as well (Thompson-Hoffman & Hayward, 1990). Students in special education, who typically experience learning difficulties, may be at greater risk for failure and dropping when they miss school more often. This emphasizes the importance of addressing patterns of absenteeism in students identified in special education quickly because past research has shown that the greater number of absences in at risk students creates a better chance of dropping out (Wagner, 1991). Again, schools need to find out why the student isn't attending and by talking to the teachers, parents or guardians, and especially the student, the problem can be discovered and an intervention can be made. Schools should consider the student's special education program, whether it's general education inclusion, collaboration, resource room, self-contained, or other related services, and evaluate if the student is in the appropriate classes for their ability or if they are too overwhelmed and frustrated with their work load. As mentioned previously, students who succeed in school want to attend and when they are not feeling successful in school, they tend to avoid the feelings by being absent (Friedman, Rodriguez & McComb, 2001).

This study found that students in special education have lower grades when compared to their peers in general education. Because this research and previous research has shown that attending school increases academic performance, school districts need to

have a good, solid program that improves school attendance instead of punishing students for not attending. Schools should try every possible approach to keep at risk students in school because the act of punishing them, as in detentions for being late too often or suspensions for too many unexcused absences, puts a student out of class for more time and forces them to be even more at risk for failure and drop out (Friedman, Rodriguez & McComb, 2001). Because of what this study and previous research has shown about how time in class affects academic performance (Marburger, 2001), suspending students for attendance-related issues seems unacceptable. Schools want their students to succeed, parents want their children to succeed, and students benefit significantly from being successful in school. Because of the outcomes that were presented in this study, combined with the previous research, it seems extremely necessary to put efforts into the attendance problems that exist amongst students in special education in order to increase their success in school and other future endeavors (Crespo & Michelence, 1981; Thompson-Hoffman & Hayward, 1990; Weitzman, 1985; Zigmond & Thornton, 1985).

#### References

- Benz, M., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment rates that predict post school success for students with and without disabilities. *Exceptional Children, 66*, 509-529.
- Brodbelt, S. (1985). Absenteeism: Critical problem in learning. *The Clearing House*, 59, 64–68.
- Brocato, J. (1989). How much does coming to class matter? Some evidence of class attendance and grade performance. *Educational Research Quarterly*, *13*(3), 2–6.
- Clump, M.A., Bauer, H., & Whiteleather, A. (2003). To attend or not to attend: Is that a good question? *Journal of Instructional Psychology*, *30*(3), 220–224.
- Crespo, M., & Michelence, J. (1981). Streaming, absenteeism, and dropping out. *Canadian Journal of Education*, *6*, 40-55.
- Dunn, C., Chambers, D., & Rabren, K. (2004). Variables affecting students' decisions to drop out of school. *Remedial and Special Education*, 25 (5), 314–323.
- Finn, J.D. (1993). School engagement & students at risk (Report No. NCES-930470). Washington, DC: National Center for Education Statistics. (ERIC Document Reproduction Service No. Ed362322.)
- Friedman, P., Rodriguez, F., & McComb, J. (2001). Why students do and do not attend classes. *College Teaching*, 49(4), 124–133).
- Jones, C.H. (1984). Interaction of absences and grades in a college course. *The Journal of Psychology*, *116*, 133–136.
- Jones, L. (1931). Class attendance and college marks. School and Society, 33, 444-446.
- Marburger, D.R. 2001. Absenteeism and undergraduate exam performance. *Journal of Economic Education.* 32(1), 99–110.
- MacMillan, D.L. (1991). *Hidden youth: Dropouts from special education*. Reston, VA: The Council for Exceptional Children.
- Maxwell, L. A. (2012, February 8). States mull obama's call to raise compulsoryattendance age. *Education Week*, pp. 17–18.
- McMillan, J.H., & Reed, D.F. (1996). At-risk students and resiliency factors contributing to academic success. *The Clearing House*, 67(3), 137–140.

- Office of Research, Evaluation, and Assessment (OREA). New York City Board of Education, Office of Research, Evaluation, and Assessment. (1993). A comparative study of attendance among general education and special education students. New York City: US Department of Education
- Roderick, M. (1994). Grade retention and school dropout: Investigating the association. *American Educational Research Journal*, *31*, 729–759.
- Rylance, B.J. (1997). Predictors of high school graduation or dropping out for youths with severe emotional disturbances. *Behavior Disorders*, 23, 5–17.
- Sinclair, M.F. (1994). Are we pushing students in special education to drop out of school? Minneapolis, MN: University of Minnesota Center on Residential Services and Community Living College of Education.
- Stanca, L. (2006). The effects of attendance on academic performance: Panel data evidence for introductory microeconomics. *Journal of Economic Education*, 27(3), 251–266.
- Thompson-Hoffman, S., & Hayward, B.J. (1990, March). *Students with handicaps who drop out of school.* Paper presented at the Annual Conference of the National Rural and Small Schools Consortium, Tuscan, AZ.
- U.S. Department of Education (2002). Twenty-third annual report to Congress on the implementation of Public Law 101-476: The Individuals with Disabilities Education Act. Washington, DC. Author.
- Wagner, M. (1991). Dropouts with disabilities: What do we know? What can we do? A report from the National Longitudinal Transition study of special education students. Washington, DC: Prepared for the Office of Special Education Programs, U.S. Department of Education.
- Zigmond, N., & Thornton, H. (1985). Follow-up of postsecondary age learning disabled graduates and dropouts. *Learning Disabilities Research*, 1(1), 50–55.