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Analysis of Graduation, Dropout Rates and Trends for Students with Disabilities in Full-Time Online Schools

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ANALYSIS OF GRADUATION, DROPOUT RATES AND TRENDS

FOR STUDENTS WITH DISABILITIES

IN FULL-TIME ONLINE SCHOOLS

by

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Abstract

Graduation rates of students with disabilities (SWD) have significantly lagged behind those of students without disabilities in public schools. Dropout rates of SWD are higher than those of students who do not have disabilities. Rates of both graduation and dropouts in full-time k-12 online schools are significantly lower and higher, respectively, than those of traditional schools, and even lower and higher for SWD in those programs. The purpose of this study was to review data of three full-time k-12 online schools in Utah, compare graduation and dropout rates of SWD with those of SWD in all Utah public schools, and to highlight, disaggregate and delineate these differences. In addition, the analysis highlights percentages and numbers of SWD who extend past their cohort graduation year, and receive certificates of completion (non-diploma) in those full-time online schools, compared with those students in all Utah schools. This secondary analysis examined annually gathered data sets from the Utah Board of Education and from three full-time online schools for five cohort-graduation years -- all students and SWD -- and compared and analyzed the cohorts and trends as collected, determined and aggregated by the state of Utah. Percentages of SWD in the three Utah full-time online schools exhibit significantly lower graduation rates – a gap of nearly 40 percentage points in each of 5 cohort years -- and higher dropout rates -- 35 percentage points or more in each of 5 years -- than SWD at all Utah schools. Trends over 5 years are improving in both areas. Percentages of other completers, including SWD who receive certificates of completion, as well as numbers of SWD in the online schools that extend past their cohort-graduation year to complete their high school education, are similar, percentage-wise, to the numbers and percentages of SWD in all Utah schools. The study offers parents, students, school

administrators, teachers and policy makers additional data on advisability of enrollment,

completion, efficacy of instruction and compliancy to state policy regarding SWD in full-

time online schools.

INTRODUCTION

Graduation rates at public high schools have been steadily rising by percentage, and dropout rates from high schools have been steadily falling over the past 15 to 20 years (National Center for Education Statistics: NCES, 2014). More than 83% of traditional high school students graduated in school year 2014-15, up from a graduation rate of 69.9% in 1990. In parallel, dropout rates for U.S. high school students have decreased to an all-time low of 7% nationally (2014), down from 12.1% in 1990, and 27.2% in 1960 (status dropout rate) (NCES, 2014). Rates of graduation and dropouts for students with disabilities (SWD) rates of graduation have lagged behind those of non-SWD students nationwide, and state-by-state (Gwynne, Lesnick, Hart & Allensworth, 2004; Wagner, Newman, Cameto, Garza & Levine 2005).

In full-time k-12 online programs, the rates of graduation and dropouts for SWD are markedly lower than that of traditional schools (Molnar (Ed) et al., 2015). Online learning is defined as students receiving instruction partially or completely through synchronous or asynchronous interactions over the internet (Rice & Carter, 2015). Full-time k-12 online schools are often referred to as cyber schools (NEA Today, 2015). These programs are defined as schools that work with students who are enrolled primarily (often only) in the online school (Watson, Murin, Vashaw, Gemin & Rapp, 2012). States and authorizing bodies, however, have produced outcome data for full-time k-12 online programs, including SWD, for the graduation cohort-years for each school.

In an environment of parent choice of school, full-time online k-12 schools have become an option for SWD (Carnahan & Fulton, 2013). For all stakeholders and students,

to extract more information and value from the choices of SWD to attend and be served at full-time k-12 online schools, a review and detailed examination of graduation, dropout, and completion rates compared to those data in traditional schools, is necessary to help determine reasons and trends for academic outcomes.

A Short History of Online Schools

With the rise in parent-school choice the past 20 years, and the development of the charter-school movement, full-time online options for k-12 students (Queen & Lewis, 2011) have flourished. Supplemental online courses were the main form of virtual coursework available in high schools a decade ago. Recently, a shift has taken place giving parents and students more full-time online and blended learning choices (Watson et al., 2012). Definitive numbers of k-12 students taking part in online learning are elusive because there currently is no single entity that tracks students in the U.S. (Glass & Welner, 2011; Watson et al., 2012). Ambient Insight (2011), a for-profit research firm, found that more than 4,000,000 students in grades k-12 in the U.S. were involved in online learning in the 2010-11 school year, and nearly 300,000 of those were in full-time online programs. While some state education officials, educators and teachers' unions and researchers are in favor of slowing the growth of full-time online schooling for k-12 students, the Ambient study predicted that by 2016, there would be an estimated 4,750,000 full-time online k-12 students, and that 29% of all U.S. children would be enrolled in some type of online instruction. Those numbers have not been realized, and some research suggests that the growth of full-time online k-12 schooling is slowing (Watson et al., 2012).

Full-time online schooling options can be offered to students through their own school districts. However, many full-time online charter schools in different states can enroll students across district boundaries. They can be managed by private, for-profit companies, which also serve as curriculum distributors that are contracted by a chartering agency. Or, district schools can develop an online program, or contract with a curriculum company, which will hire, supply and train district teachers for the online school. State agencies, regional education services, or universities serve as authorizers and overseers of compliance (Hasler-Water, Barbour & Menchaca, 2014).

Online school programs, many with short histories, have yielded a graduation rate significantly lower than that of traditional, brick-and-mortar schools, as well as a higher dropout rate, the reasons for which are many (Utah Board of Education, 2015). K-12 online programs also attract SWD, those with physical to learning disabilities, with students with Individualized Education Programs (IEPs). They are served through special education in the online environment, in virtual classes, by certified special education teachers (Carnahan & Fulton, 2013). Some of these students and their parents opt for online schools because they believe disabilities many hinder them regularly attending class in brick-and-mortar public schools (Beck, Egalite, & Maranto, 2014). Some research has pointed to parental participation as a reason that parents of SWD may opt for a full-time online option. Studies cite that, although parents are involved in their students' education through the IEP process, educators in traditional schools "may use their professional status, knowledge of regulations, and cumbersome language to intimidate, rather than partner with parents, subverting the intent of special education legislation" (Beck et al., 2014, p. 71). Small class and school size, and parental

involvement may enable charters to better serve special-needs students and parents due to the perception of less bureaucracy and enhanced service within the school (Lake, 2010; Milliman & Maranto, 2009; Rofes & Stulberg, 2004; Yancey, 2000).

In a typical, full-time online school, the SWD student is assigned to a state-certified and special-education qualified teacher. That teacher, along with regular-education, certified online teachers, tracks and monitors student progress; teaches live, online lessons; assigns and grades assessments and written assignments; and stays in communication with student and parent via phone, internal email, and possibly an online, whiteboard or Skype classroom. Parents are considered learning coaches, providing their students with academic help, tracking, time management and prodding to complete assignments (Hasler-Waters, 2012). IEP-required special education services are delivered mostly online, including speech and occupational therapy in some instances. Parents (learning coaches) also provide their students with academic help, tracking, time management and prodding to complete assignments (Hasler-Waters, 2012).

Some researched reasons for parents choosing full-time online k-12 schools are that the schools offer options for students from at-risk backgrounds, or those who are academically at-risk in a traditional-school setting, as well as students who have special needs (Darrow, 2010; Hubbard & Mitchell, 2011a). Other reasons for parent choice include self-pacing, competency-based courses that allow students flexibility of time, quality of curriculum, and ability to perform schoolwork at home or other locales (Huerta, Gonzales, & d'Entremont, 2006). While parents and SWD legally have the option to attend cyber schools in many states and districts, those schools are also legally required to honor the parent choices for SWD, regardless of the perceived wisdom or

efficacy of the choice. Since these are public charter schools, online schools may not legally exclude, or even counsel-out potential SWD enrollees (Smith, Clark, & Blomeyer, 2005).

Carnahan and Fulton (2013) suggested the choice of online schools for SWD may in inadvisable from a brick-and-mortar special-education standpoint. Further research has shown that the ability of these new institutions to support a variety of learners with varied academic abilities and drive, including SWD, is limited (Cavanaugh, Barbour, & Clark, 2009). However, regardless of the student, schools cannot discriminate by denying service to students with or without disabilities who may perform or attend below standards (Carnahan & Fulton, 2013). Further research is needed as to the advisability of parents and students choosing full-time k-12 online schools, the learning outcomes of those students, and efficacy of online special education services and whether graduation and dropout rates are adversely affected by these alternatives (Butz, 2004; Clark, 2003; Dickson, 2005; McLeod et al., 2005).

SWD who attend full-time k-12 online programs have a significantly lower rate of graduation and higher rate of dropping out than non-SWD students in online schools (Molnar et al., 2014). But overall, SWD in full-time online schools post alarmingly low rates of graduation and high dropout rates compared to SWD at traditional, brick-and-mortar public high schools (Glass & Welner, 2011), and far below the 83% national rate (2014-15) and the published 85% Utah graduation rate (2015) for non-SWD students (NECS, 2014, Utah Board of Education, 2015).

The available research and data are prolific regarding national and state graduation and dropout rates for both SWD and non-SWD students in regular, public

schools. Those all-important compliance indicators at full-time online schools have not been studied in depth. Hasler-Waters et al. (2014, p. 386) reported that there was evidence from state audits, newspapers reports, dissertations and some studies that drop-out rates were higher and graduation rates lower for SWD than in traditional schools. Research on those rates in other states, including in Utah in this present study, is needed to determine if those indicators are similarly affected and how those numbers are trending.

Review of Literature

In *The Nature of Online Charter Schools: Evolution and Emerging Concerns* (2014), Halsa-Waters et al. delivered an overview of online learning, and expressed concerns about the rapid growth of the academic option of students accomplishing school-to-home, rather than home school. The authors distinguished terms: *online learning* as the practice of computer-based learning for elementary and secondary students; *virtual school* as supplemental programs that are offered online, taken by students who attended brick-and-mortar schools and who wanted to or needed to supplement their course options; *cyber school*, as referring to a publicly funded, full-time school. Cyber schools and full-time k-12 online schools or programs will be used interchangeably in this study, but there are other terms that have been used to describe these, including virtual charters, cyber charters, and hybrid charters.

Hasler-Waters et al. (2014) delved into the history of online learning, beginning with the first virtual class in 1986 to the rapid growth of full-time k-12 online schools – having been approved in 11 states in 2004; to varieties of full-time or supplemental online programs in most of the 50 states by 2011. The authors highlighted their concerns

regarding the effectiveness of the model for some students, citing state test scores, low achievement scores for some subgroups in some locales, and graduation and dropout rates. Though the data were nearly a decade old, the authors cited findings pointing to higher drop-out rates among online charter high school students compared to traditional schools in Minnesota, California and Colorado. An audit of full-time k-12 online programs in Minnesota found that full-time online seniors dropped out at a 25% rate in 2006-2007, while traditional school seniors had only a 3% drop-out rate at the end of the same period (pp. 385-386). Additionally, in Colorado, newspaper reports discovered that half of the state's online students unenrolled from their online schools within a year. These reporters discovered that when students returned to the traditional school, they were further behind academically than when they started (Barth et al., 2012; Hubbard & Mitchell, 2011a). Similarly, Darrow (2010) found that California's online charter students dropped out at higher rates compared to their traditional school counterparts.

The authors found three significant gaps in research regarding effectiveness and future of full-time k-12 online schools: (a) Most studies covered only a short period of time, and reflected the relatively new nature of the concept and reality of online schools; (b) few studies have covered familial and parent involvement, and how successful students are helped by heavily involved parents working with them; and (c) most studies at the time (2014) were mainly focused on quantitative data as to performance and retention. More qualitative studies were shown to be needed, to "capture the complex implications associated with online charter schooling, such as the pedagogy, curriculum, or environmental and social factors that might influence students and their learning experiences" (p. 387).

Other researchers have found that curriculum, pedagogy and support of online schools were beneficial to SWD. In an *Investigation of a Special Education Program in a Public Cyber Charter School,* Spitler, Repatto and Cavanaugh (2013) wrote that initially, online learning was aimed at advanced learners. But educators realized the medium could be successfully engaging to a variety of students, including those at-risk of dropping out of school, and including special education students who might "drop out, flunk out, be pushed out or age out of school" (Watson & Gemin, 2008, p.93).

Spitler et al. (2013) concluded that SWD at risk for dropping out of school could benefit from online courses or full-time online school tailored to the students' needs. Additionally, the authors cited that online schools have added closing-the-achievement-gap and credit recovery to their missions (Repetto et al., 2010), as well as strategies designed to ensure struggling learners are successful (Archambault et al., 2010).

Research of an online school in the northeast U.S. by Spitler et al. (2013) described the learning environment as a "collaborative relationship between the learning coach (parent or guardian), teacher, family support coordinator (FSC) and the curriculum" (p. 7) as working together to meet student needs, as well as to aid the academic progress of the SWD. This is in contrast with other studies and conclusions of researchers that use of a parent as a learning coach was a detriment. A parent worked to ensure the student logged in; entered attendance and also ensured that students participated in online, synchronous lessons with a highly qualified teacher. The teacher acted as an online classroom presenter, a facilitator as students moved through sets of interactive curricula. The teacher ensured that students were working on specific learning objectives (standards), individualizing the students' academic program as to pace and

competency. The authors found that, in an online environment, students received more one-on-one attention and instruction than students in traditional schools. SWD in the online school of this study received accommodations and services as dictated by the IEP, and were taught regularly, synchronously, by certified special education teachers and regular education teachers. The special education teachers worked in conjunction with students, parents, regular education teachers, and administration to make sure the IEP was implemented, to work with the student toward graduation or completion, and to help the student to transition to post-high school goals and activities.

While students, parents and parents of SWD may opt for online schooling in increasing numbers, a larger percentage of all SWD do not graduate, or they drop out and/or are recipients of alternate ways to exit school after their four-year cohort graduates (Thurlow & Johnson, 2011). This is also true of SWD in traditional schools: more dropouts; fewer graduates in the 4-year-cohorts; more special education students being granted certificates of completion, rather than diplomas; and more students extending into fifth, sixth years and longer for their education, as allowed by states' laws and IDEA (NCES, 2014).

Some students find the diploma an unrealistic goal and will conclude their high school career with a certificate of completion. It is not an academic credential and there are no state course or grade requirements necessary to earn a certificate of completion. A student successfully working toward his/her IEP goals is generally eligible to receive a certificate of completion (National Center on Education Outcomes, 2000).

In the 2013 study by the National Center for Learning Disabilities entitled

Diplomas at Risk: A Critical Look at the Graduation Rate of Students with Learning

Disabilities, the author cited the rise in graduation rate, and decrease of dropout rate for SWD. But the study showed that those SWD remained at risk of not graduating with a regular diploma (National Center for Learning Disabilities, 2013, p.7). Though students with specific learning disabilities (SLD) comprised 40.7% of SWD when the study was written, the concerns and data regarding graduation and drop-out rates, as well as SWD not exiting school with a diploma with their cohort, were nearly identical (NCES, 2014). Sixty-eight percent of students with SLD graduated on time in the 2010-11 school year, compared to a 79% graduation rate that year for all high school students in the U.S. (U.S. Department of Education, 2014). SWD, SLD, and all high school students in these studies were tabulated using the 4-year adjusted cohort graduation rate (ACGR), measuring the percent of students that successfully completed high school in 4 years with a regular high school diploma. The NCES made use of a different measure to tabulate drop-out and graduation rates: Status Dropout Rate – the number of 16-24-year-olds who were not enrolled in school and who had not completed a high school program. The later measure has been valuable to compute overall graduation and drop-out rates, for SWD and non-SWD students. Significantly, the Status Drop-Out Rate calculation nearly does away with questions and concerns regarding SWD who were awarded certification of completion (and thus completed a high school program), or those who graduated after their cohort year (whom, under ACGR, are considered dropouts). However, the NCLD study authors vehemently called for accounting for graduation/dropout rates using ACGR, for consistency in reporting nationally, as well as encouragement to schools to increase opportunities and pathways for SWD to graduate on time with their cohort (NCLD, 2013, p. 5).

Using 2010-11 as a model school year, and using data from the Diplomas at Risk study, 68% of students researched (those with SLD) earned a diploma, with their cohort-year classmates. Nineteen percent dropped out; and 12% left with either a certificate of completion – a document recognizing the completion of a school program, but not recognized for post-secondary education or employment (NCLD, 2013, p. 7; IDEA Part B Exiting Data for 2010-11). A dropout in this study, as well as in the subsequent Utah data review, was counted as a student who was enrolled at some point in the reporting year, but was not enrolled at the end of the report (cohort) year (NCES, 2012). The national average graduation rate for students with SWD hit an all-time high of 61.9% in 2013, but was still 20% lower than the average for graduation of all students (NCES, 2014).

The prospects for students who leave school without a diploma are poor. Any student who does not graduate from high school faces an increased likelihood of unemployment, under-employment, poverty, health problems and incarceration (Wagner et al., 2005). For SWD, who already face physical, intellectual, emotional or behavior challenges, and others, not earning a high school diploma may compound their difficulties (Thurlow & Johnson, 2011).

Purpose Statement

Though the track record of full-time k-12 online schools' graduation and dropout rates for SWD has not been long, the differences between the rates at those schools, and the rates at traditional schools appear significant. The differences call for closer examination, particularly among Utah schools.

The rationale for this examination of data is to highlight and analyze the graduation/dropout differences for SWD who attend, complete or fail to complete full-time k-12 online schools in Utah. The cohort data from three, relatively large online charter high schools in Utah with a history of at least 4 years, will be compared to graduation/dropout numbers for all Utah high schools. In addition, numbers of SWD at the online schools who receive certificates of completion; who do not graduate with their cohort; and those SWD who extend past their cohort year and subsequently graduate, receive a certificate of completion, or run out of years in which to be educated will be compared to the same data points of all Utah high school SWD. The examination of data and the comparison between SWD at different types of schools will add to research of graduation/dropout/school completion/non-completion for SWD in online programs and traditional schools in Utah.

The purpose of this secondary data analysis is to examine existing data sets comparing graduation, dropout and completion data of SWD in full-time k-12 online schools with similar data from SWD in all Utah schools. In addition – particular to SWD nationally and in Utah – the study will review numbers of students who opt for (or are counseled toward) earning a certificate of completion, and those who extend their education beyond their cohort graduation year, up to age 22 years (the maximum age in Utah). The study will also review the method(s) of counting SWD graduates, dropouts and completers used by the Utah State Board of Education, the effects the counting method has on cyber schools and student completion data, and assumptions made concerning efficacy of the online academic programs.

Research Questions

1. How do cohort graduation rates for SWD at full-time online k-12 high schools in Utah compare to those of students in traditional schools in Utah?

2. How do dropout rates for SWD at full-time k-12 online high schools in Utah compare to those of students in traditional schools in Utah?

3. How do the numbers/percentages of SWD who receive certificates of completion, or who extend past their cohort year to graduate and then graduate or receive a certificate of completion in Utah k-12 online programs compare with those numbers of SWD in traditional schools in Utah?

4. What percentage of SWD dropouts from full-time k-12 online high schools in Utah return to another school to finish high school with a diploma or certificate of completion?

Method

Data Set Comparisons

Existing data for students with disabilities at three full-time k-12 online schools was compared with data for SWD in all Utah schools over 4 cohort-graduation years. These data sets already exist and are available to the public. This study was a secondary analysis of existing data. The students, who remain unidentified, were either classified by the State of Utah and federal accountability regulations as: graduates, dropouts, extending students (beyond cohort year) or students receiving certificates of completion, rather than diplomas. SWD in these categories were not be separated by disability type: only by cohort year.

The online schools that were reviewed were chosen by population and number of students attending on a full-time basis. The schools that were chosen have operated in

Utah for at least 5 (cohort) years. The data from the analyzed schools was combined, and the schools are not identified by name. Schools were asked to voluntarily produce cohort graduation (and dropout) data, which were compared to state-gathered and -determined data.

There were 183 Utah schools with graduating cohorts number in 2016. The total number of students in the latest graduating cohort in Utah was 45,306. The number of SWD in the state-wide cohort was 4,505. For the three online schools reviewed, the graduating cohort (2016) was 436, of which 57 were SWD. These numbers and students, over 5 cohort years (2012-2016), as well as Utah high schools and highlighted Utah full-time k-12 online programs, were participants in this data analysis.

Definitions and Methods of Determining Student Status

The following definitions were used for graduation/dropout data, explained on the Utah State Board of Education 2011 Cohort Graduation and Dropout Rate Report (2011):

Cohort. A cohort is a group of students entering ninth grade in a given year, regardless of which school the student begins the ninth-grade year in the state the student resides.

Graduation rate. This includes all students who started ninth grade 4 years prior (i.e. 2011-12 year for 2015 cohort), plus students who transferred to a Utah public school in ninth grade or higher. The Utah State Board of Education (2011) has opted to follow the requirement of the Elementary and Secondary Education Act (ESEA) to calculate 4-year cohort to compare Utah's graduation rate with that of other states. (Not all states or data-collection agencies have used the Adjusted Cohort Graduation Rate [ACGR], the 4-

year cohort rate dictated by ESEA). Utah began using the ACGR in 2008 for all state accountability measures (Utah State Board of Education, 2011, 2015).

Graduates. A graduate is considered a student who has earned a basic high school diploma or adult-education secondary diploma (Carnegie Units) achieved by September 30 following the end of the cohort school year.

Dropout. A dropout is considered a student who has not completed graduation requirements, withdrawn, dropped out or been expelled. Federal requirements dictate that schools must consider as dropouts those students who take longer than 4 years after entering ninth grade to receive their high school diploma. Students who withdraw from a school before graduation-cohort year, and then are enrolled in another school, are no longer considered dropouts for the initial school.

Other completers. This category identifies those students who completed the General Education Development test (GED) or a certificate of completion and SWD who participated in the Utah Alternative Assessment (UAA). (The researcher disaggregated these for certificate of completion receivers for SWD.)

Continuing students. This category identifies those SWD (enrollment allowed until age 22 years) as well as those who transfer to higher education or the state's applied technology schools without first receiving a high school diploma.

Analysis of Data Sets

Data are gathered and published annually from all schools by the Utah State Board of Education as to cohort graduation rates, dropouts, extended students (SWD) and students receiving certificates of completion (Utah State Board of Education, 2016). Utah

public schools are required to report cohort numbers, potential graduates, dropouts from the 4-year cohort, and tracking of the extending SWD on an ongoing basis. Despite allowances made by the state and schools for SWD to extend up until age 22, those students extending beyond their cohort year are considered and counted as dropouts by the state.

Individual public schools are required to report cohort graduation data, dropouts, extended students, and other completers, including those receiving certificates of completion. The three full-time online schools in Utah that were compared to all state-funded schools also submitted graduation and dropout data to the study. School-based data was compared to state-compiled and aggregated data, though, for purposes of this study, the state-compiled and determined data must be deemed as official in terms of graduation and dropout rates.

Data analyzed include:

1. *Utah State Board of Education, 2016: Utah's high school cohort graduation, dropout, and other completer/continuing rate, 2015-16.*
2. *Utah Board of Education, 2015: Special Education data and reporting.*
3. *Utah State Board of Education, 2015: Utah 2015 Graduation Rates.*
4. *National Center for Educational Statistics, 2014: Public high school 4-year on-time graduation rates and event dropout rates: school years 2013-14.*
5. *National Center for Educational Statistics, Data Report: Percentage of high school dropouts among persons of 16-24 years old (status dropout rate) by sex and race/ethnicity, selected years 1960-2014.*

6. *Requested and compiled data from Utah Board of Education, Data and Statistics, Data Reporting, breakout of "other completers" and dropout-returns from selected charter schools.*

7. Dropout and graduation data for students with disabilities from three Utah k-12 full-time online schools.

Variables

Variables in this data review included type of school (public brick-and-mortar traditional or charter school, or full-time k-12 online school); graduation cohort years (2012-2016), and categories of SWD completers – graduate, dropout, extended or certificate of completion. The analysis broke out numbers and percentages of extended and certificate-of-completion students, though, for federal and state compliance purposes, those categories, as well as students who take the GED and those who begin higher education without a high school diploma, are considered dropouts, and skewed the schools' dropout rates.

Measures

The study compared numbers and percentages of SWD graduates, dropouts, extenders and students receiving certificates of completion in all Utah public schools with SWD students in the same categories at three full-time k-12 online schools in Utah, according to state data and data from individual schools. Data was analyzed per cohort year, from 2012 to 2016, and trends were examined.

Procedure

Graduation and dropout data reported from the three Utah full-time online schools were first compared with state-compiled and determined rates and numbers. (The state and individual school number were nearly identical, though school officials may dispute state determinations.) Graduation rates for the Utah full-time online schools were then compared to Utah public school rates, by number and percentages. The same comparison of dropout rates was completed, with the dropouts from the online schools broken out from the total cohort population of the schools.

Using state and federal definitions for graduation and dropout calculation, the data from Utah and nationwide schools was compared with the data from the three reviewed Utah online schools for 5-cohort graduation years. Graduation rates and numbers for SWD for the three Utah online schools were compared to that of all Utah traditional and brick-and-mortar charter schools. Similarly, dropout rates were compared, by number and percentage. Students with disabilities who extended beyond cohort-graduation year, and students who earned a diploma or certificate of completion in both groups were disaggregated and analyzed. Trends in each rate, as well as a view of numbers and percentages of SWD students attending and part of a cohort-graduation year, were noted and analyzed, and compared to national and state trends of graduation and dropouts for SWD.

Results

The results of the data analysis of graduation/dropout rates in Utah and among Utah full-time online programs were predictable, but revealing and valuable as to numbers and trends. Four research questions guided the review. The first research

question was a comparison of graduation rates of SWD in three Utah full-time online

schools with those of all Utah schools. Figure 1 shows graduation rates for all Utah

schools from 2011 to 2016, for SWD and non-SWD, and a breakout of graduation data

from three Utah full-time online schools for SWD and non-SWD. While the percentage of

graduates from Utah schools (within cohort) has risen from 76% to 85% from 2011 t0 2016, the

percentage of graduates from Utah full-time online schools, while rising, was 46% in 2016

(aggregate of the three schools studied), nearly half of that of all schools in Utah.

The second research question is a comparison of dropout rates among all Utah

schools, with three Utah full-time online schools. Figure 2 shows dropout rates for all

Utah schools from 2011 to 2016, for SWD and non-SWD, and the state-collected dropout

data compiled from three Utah full-time online schools for all students and SWD.

Reviewing graduation and dropout percentage data of SWD from Utah schools, and

comparing it to graduation data of the three, full-time k-12 online programs, emphasizes

that SWD have lower graduation rates and higher dropout rates in those online programs.

The dropout rate in all Utah schools fell from 21% in 2011 to 12% in 2016. Dropouts in

the three full-time online schools stood at 38% composite in 2016. For SWD statewide,

dropout rates fell from 26% in 2011 to 17% in 2016. The dropout rate for the three Utah

online programs stood at 25% of cohort in 2016. This mirrors the gap in graduation rates

of SWD in traditional schools with that of all regular-education students nationally and in

Utah for many years, though the gap nationally and in Utah is shrinking. Another gap is

evident in the analysis as students and their parents have chosen full-time online schools:

Graduation rates were significantly lower, and dropout rates higher, than those of

traditional schools. When SWD and their parents chose a full-time online school for their education, another gap was apparent in graduation and dropout rates.

The third research question involves highlighting the number and percentage of SWD who drop out of full-time online programs in Utah and eventually graduate or complete their education at other schools, after being counted as dropouts in their cohort graduation year. The percentage of SWD students who enroll in other schools after being counted as dropouts from full-time online schools was greater than 20% over the 5 years from 2011-2016, according to Utah Boarding of Education data analysis.

The fourth research question concerned the percentage of SWD students in all Utah schools compared with those in Utah online schools who extended past their cohort year of graduation and/or receive a certificate of completion. As shown in Figure 3, percentages were similar in the online schools to traditional Utah schools, though the number of SWD in this category affects graduation and dropout rates for all Utah schools.

In Utah, the percentage of continuing students – those who extend in public school past their cohort year – only rose slightly for all students, but the number of those students was low since non-SWD have few reasons or opportunities to go beyond four years. The number and percentage of extending students was higher for SWD, as federal and state policy allow those students to extend until as old as 22 years of age. In their cohort year, and subsequent years of extending without graduating or otherwise finishing high school, they are counted by the state of Utah as dropouts.

Few students in Utah qualify as Other Completers. However, the number of SWD that continue in school past cohort graduation year and receive a certificate of completion is higher than those students in the general population of Utah schools. This was anticipated and predictable. Utah tabulates graduation and dropout rates, and policies exist for SWD students to extend beyond their cohort graduation year. Those students, in all schools, have a pathway toward a certificate of completion.

As for numbers and percentages of SWD who extend past cohort graduation year (as old as 22 years in Utah), the percentages were similar in traditional schools as in online schools. While percentages of extended-beyond-cohort SWD, as well as percentages of SWD who receive certificates of completion, were similar in the different schools in aggregate, the numbers were likely a function of individual schools' policies, since per-pupil funding is granted to schools which extend SWD beyond their cohort year.

Discussion

This study analyzed existing data on graduation and dropout rates of SWD in online schools. As such, the findings will add to the research on outcome data for SWD in comparison to general education students and SWD in traditional schools. Based on the nominal age of the full-time online schools studied, there was and is an upward trend in numbers and percentages of graduates in cohort years, as all schools are forced to concentrate efforts on this metric. And, there was a downward trend in dropout rates, as the schools are improving academic methods, or as parent-choice and schools' student enrollment policies are refined. For instance, the graduation rate of SWD in the three full-

time online schools in Utah rose from 19% to 32% in the first 5 years of the schools' histories. And the percentage of dropouts has fallen from 55% (of cohort) to 38% among all students in the online schools, and from 33% to 25% for SWD in those schools. This is perhaps a function of those schools being called into greater compliance due the critical nature of the graduation/dropout metrics to the ongoing nature of the schools.

The number and percentage of SWD in full-time online schools who extend past their cohort year may increase in future years due to state and federal policy allowing SWD students to extend their education. Also, the full-time online schools in Utah tend to attract SWD and their parents/guardians who see the programs as schools of last resort (Gill, Walsh, Wulsin, Matulewicz, Severn, Grau, Lee, & Kerwin, 2015). Many of the current and former students have tried and either failed or have been dissatisfied in other school settings. The online programs are schools of choice, and therefore some SWD who have transferred to full-time online programs will not graduate with their cohort due to transcript deficiencies. Those students who opt for extending, or for other reasons cannot graduate with their cohort are considered dropouts, the rate will likely rise in the future. While this may hurt the schools' graduation/dropout rates, it may help some of those students academically and in their transition beyond high school.

Much like traditional schools, online schools are under pressure to graduate more SWD, and, as a consequence, online schools may resort to overtly or covertly restricting enrollment of SWD. State policy does not allow discrimination by public charter schools, and those schools must enroll all students. However, many proponents of full-time online schools, as well as non-proponents, are recommending stricter screening processes to try

eliminate or discourage enrollment of those students for which the model is not appropriate (Shah, 2011).

State authorizers – in the case of this study, the Utah State Charter Board – have acted to shut down charter schools if those programs are not in compliance in terms of graduation/dropout rates, among other academic metrics (*Deseret News*, 2015). Full-time online schools, in Utah and elsewhere, face closure by authorizers if compliance and academic measures are not met, or school improvements toward higher graduation rates are not implemented.

Graduation and dropout rates for SWD have perhaps suffered from No Child Left Behind (NCLB) rules that insist that SWD graduate (or at least be counted toward graduation) with their cohort (Schiffer, 2011). The message, educationally, for those students is that they are allowed to – even encouraged to – extend beyond their cohort year if it makes sense for them to have more time and instruction beyond 4 years. The message for schools is: Those students who may need more time and instruction beyond 4 years are counted as dropouts. The incentive for schools is to graduate more SWD with their cohorts, perhaps going against academic sensibilities for that SWD, and perhaps by any means necessary. Both incentives do not have the welfare of students as the focus, but the common compliance policies of schools, for all students, SWD and non-SWD. That makes for easier data collection and public rating of schools. But if federal and state special education policy allows for and encourages students (who need to) to extend beyond their cohort year, but then effectively punishes schools and their graduation/dropout rates for allowing of encouraging those SWD to do so, the intent and execution of the policy is flawed.

The manner in which graduation cohorts are tabulated, for all students, and especially for SWD, is also flawed. Simplified data collection such as the Adjusted Cohort Graduation Rate (ACGR) places schools-of-choice in a precarious position. Students who spend years in other academic settings, often without success, who then choose an online or other school-of-choice, may bring with them a transcript and pattern of failure. Publicly funded schools-of-choice, which must accept all students, then are tasked with getting those at-risk, failing or SWD to graduation with their cohort. Often, it is an impossible task, and the compliancy and performance-designations of those schools-of-choice suffer for providing those students with another academic opportunity to succeed. The cohort graduation tabulation method does not take into account those students switching schools mid-cohort, nor the reasons the students are switching schools.

This analysis of cohort graduation rates and dropout rates of full-time online schools in Utah, compared with the cohorts of all schools in Utah over 5 years, has several limitations. The number of full-time online schools studied is small (three), as are the number of students statewide attending full-time online programs. At the least, a similar analysis of graduation, dropout rates at full-time online schools in states with larger numbers of either schools or students would increase the validity of the data-set evaluation. The schools in Utah have been in existence a short time, as has online-charter school policy and ever-evolving compliancy regulations by authorizers such as the Utah Board of Education and its Charter School Board. In addition, school/parent-choice – incarnated as charter schools and k-12 online programs – is relatively new to the educational landscapes of states like Utah, as well as nationwide.

Another limitation of the study is the few full-time online schools within the state, thus necessitating combining the graduation/dropout data from the three analyzed schools.

While school-choice allows parents and students to try to customize educational opportunities – as students are able to do in college programs – it is messy and awkward in terms of gathering and interpreting uniform data similar to that coming from traditional schools. More study on graduation and dropout rates of SWD in full-time online programs needs to be accomplished as schools mature, and policy and compliance efforts are refined for and within the schools. Additional intensive investigation is needed on the actionable reasons for the now-wide discrepancies in rates of graduation and dropouts among SWD in those programs.

Suggested further research might include efficacy of state policy on enrollment rules in schools-of-choice; potential opportunities for schools-of-choice to be more selective in their enrollment of students, without being overtly discriminatory, but helping students and parents make wiser academic-setting choices. Further investigation of parent/student motivations for choosing full-time online programs, as well as attempts to create a model profile of SWD who have a reasonable chance of success in a full-time online program, would also be valuable as the school-choice genres mature.

Parents of and SWD who consider enrolling in full-time k-12 online schools should be armed with information and motivation to be successful, including the data regarding graduation and dropout rates of such programs. Full-time online programs, such as the ones studied from the Utah data set, are popular choices of parents and students for various reasons. Many students are successful in these programs, which offer

students flexibility in location and speed of progress -- and in some cases addition academic help for SWD – and parents the opportunity, if desired and determined, to have in-depth involvement and oversight of their disabled students' education. The concept of full-time online education for k-12 students did not develop in a vacuum: The schools are fulfilling needs for many parents and students of various capabilities and backgrounds, including SWD. Special education law and availability of educational options have intersected with online schools in America and Utah, giving all students, including SWD, and parents an additional, if immature, educational choice, as well as the right to be included (Beck et al., 2014). Full-time online schools in Utah and other states will continue to be attractive choices for students, as long as trends in graduation rates rise, and dropout rates fall, as schools refine their programs and efforts to work more effectively with students to help them achieve. Parents of and SWD need to make informed choices of educational venues and programs, using data, including graduation and dropout rates, to choose between offerings, to determine where students can be most successful.

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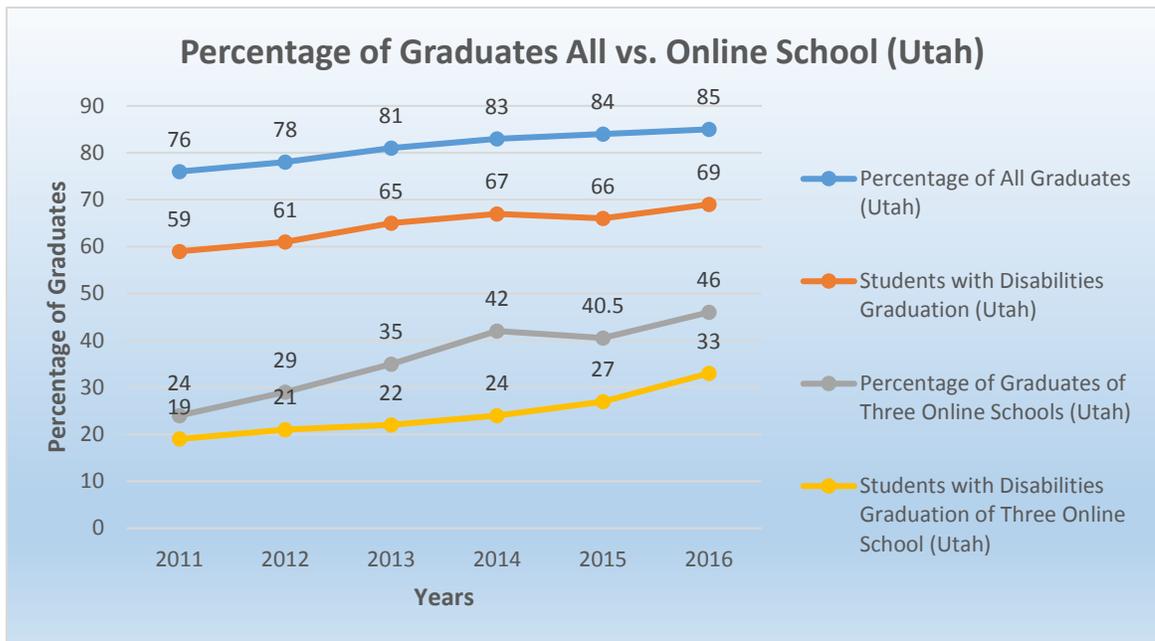decentralization*. New York: Peter Lang.

Figure 1. Comparison of graduation rates (percentages of total) for all Utah students, SWD, three Utah online schools and SWD in those schools.
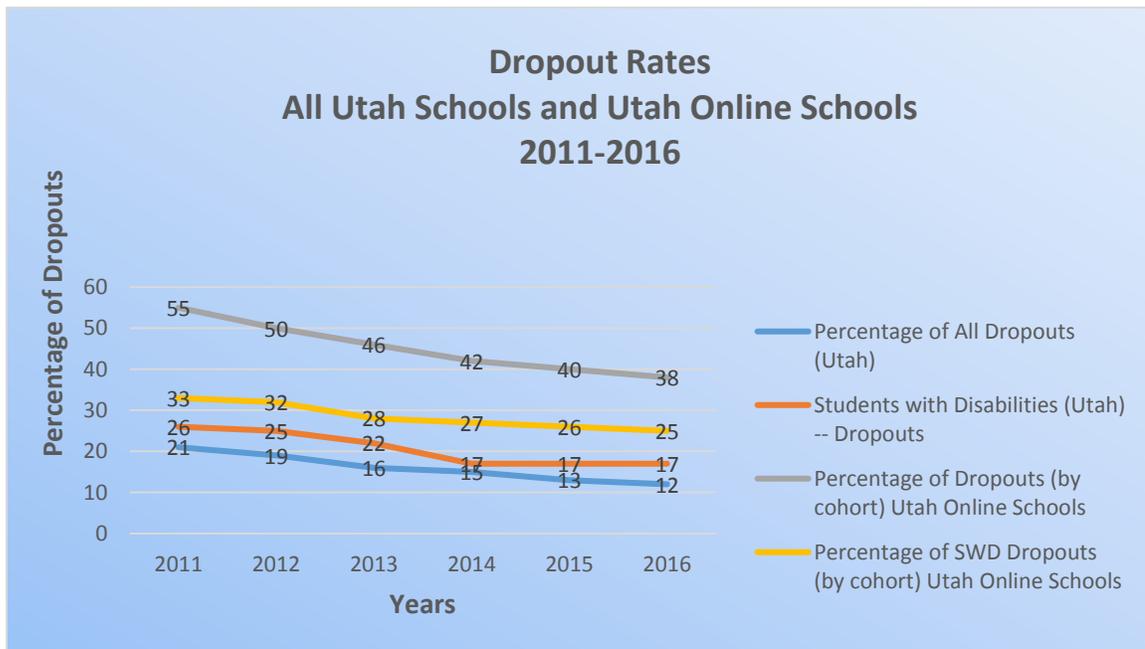
Figure 2. Cohort year dropout rates (percentages) for all Utah students and SWD, compared with Utah online schools and SWD.
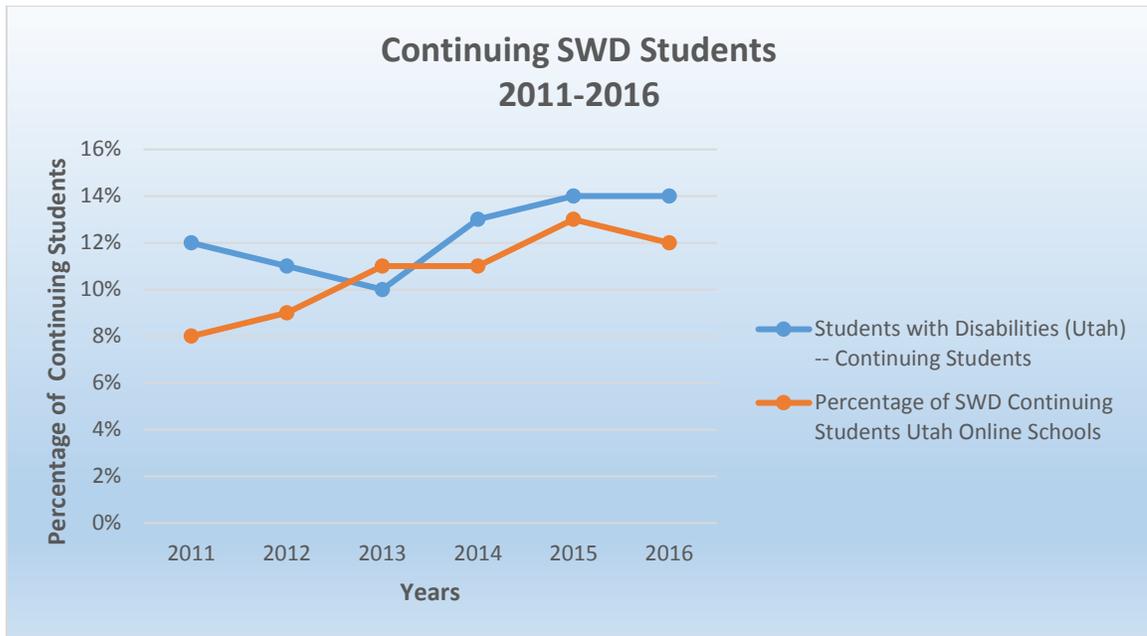
Figure 3. Chart of cohort year percentages of continuing students, and SWD extending beyond cohort year.
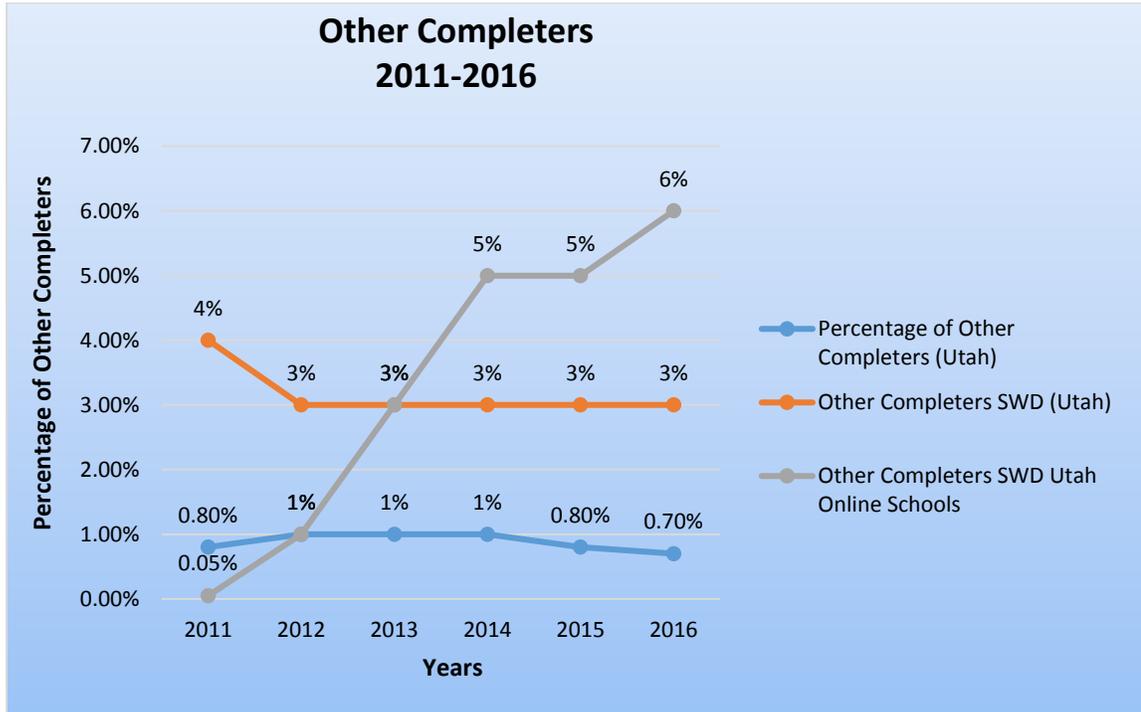
Figure 4. Percentage of Other Completers by Utah definition, and SWD who earn certificates of completion or take GED.