2019

Investigating Employer Support as a Predictor of Online Master's Student Retention

James Lenio
Walden University

Walden University

College of Education

This is to certify that the doctoral dissertation by

James Alexander Lenio

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Alan Seidman, Committee Chairperson, Education Faculty
Dr. Leilani Gjellstad, Committee Member, Education Faculty
Dr. Beate Baltes, University Reviewer, Education Faculty

The Office of the Provost

Walden University
2019

Abstract

Investigating Employer Support as a Predictor of Online Master's Student Retention

by

James Alexander Lenio

MS, University of Wisconsin - Stout, 2006

BS, University of Wisconsin – Eau Claire, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

November 2019

Abstract

Enrollment in master level programs has been increasing nationwide, particularly in online programs which tend to enroll older and more ethnically diverse students who are likely to be balancing work, finances, and family responsibilities with their educational pursuits. The challenges related to this balance has resulted in higher attrition rates and lower completion rates. In this quantitative study, the relationship between employer support and first-year retention for master's students enrolled in online programs at a for-profit university was examined. Bean and Metzner's model of nontraditional student attrition was used as the theoretical foundation. Archival data from the online institution were examined to determine the extent that 1st year retention is predicted by employer support when controlling for demographics, student background, external factors, integration/socialization, and intent to graduate. Findings from the logistic regression analysis showed 4 variables that significantly predict 1st year retention, employer support, household income, overall satisfaction, and importance of graduating from the institution. Students who received employer support were almost 2 times more likely to be retained at 1-year. Positive social change can result from having educational institutions encourage students to seek employee educational benefits. Having students seek these employer benefits may lead to higher graduation rates, higher pay, and job satisfaction for employees.

Investigating Employer Support as a Predictor of Online Master's Student Retention

by

James Alexander Lenio

MS, University of Wisconsin - Stout, 2006

BS, University of Wisconsin – Eau Claire, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Education

Walden University

November 2019

Acknowledgments

I would like to acknowledge my committee who encouraged me, and pushed me when necessary, to complete this dissertation. I am so fortunate to have had Dr. Alan Seidman agree to chair my committee and Dr. Leilani Gjellstad as my methodologist. Dr. Seidman's knowledge, guidance, and thoroughness allowed me to move through the process, but his sincere desire to see me succeed and his confidence in my abilities to succeed are what I will remember the most. Additionally, I hope to be able to incorporate the thoughtfulness and skill shown by Dr. Gjellstad, as we worked through the methods and analysis, into all my future work inside and outside of higher education.

I would like to thank my parents, Bruce and Ann Lenio, for their constant support and encouragement not only through my doctoral journey but since the day I entered this world. You have instilled in me hard work, dedication, and curiosity – all of which were necessary to complete this dissertation. I also want to thank my brothers and my in-laws for their support and understanding while I dedicated myself to this journey.

Finally, there is no possible way I could have earned this degree without the constant love and support from my wife, Lauren, and our children, Quinn, Stella, and Hattie. I will never be able to fully express how grateful I am to have you all in my life and I will never be able to repay you for the sacrifices you made for me. I love and appreciate you more than you can imagine.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

In Fall 2016, over 74% of United States graduate level enrollments were at the master's level numbering nearly 1.4 million students (Okahana & Zhou, 2017). The number of students first starting a master's degree has been increasing by 3%, on average, each year from 2011 to 2016 (Okahana & Zhou, 2017). Additionally, employers are increasingly looking to hire employees with master's degrees. According to Census Bureau (2018) projections, entry level jobs that require a master's degree are expected to increase by 16.7% between 2016 and 2026. As enrollment in master's degree programs continues to rise, it is important to keep in mind the differences compared to their undergraduate counterparts.

Master's students are older than their undergraduate counterparts which entails trying to balance their schoolwork with full-time employment and family obligations that may include caring for children or elderly family members, caring for a spouse/partner, or even tending to home maintenance needs (Hardre & Pan, 2017). The majority (76%) of graduate students (masters and doctoral) work at least 30 hours per week (Carnevale, Smith, Melton, & Price, 2015). Data from the 2016 National Postsecondary Student Aid Study (NPSAS:16) indicated that over 40% of master's students worked between 30-40 hours per week, and another 16% worked more than 40 hours per week, while 24% did not work at all (National Center for Education Statistics [NCES], 2016).

Undergraduate students' first-year retention rates are key metrics at most institutions because these students typically make up the majority of all enrollments and federal reporting is required for these students. Volumes of research have been conducted

to examine the factors related to first-year retention of undergraduate students with far less conducted on master's level programs. There is scant national research available on master's degree program's retention rates, likely having to do with the fact that these programs enroll fewer students and have no federal reporting requirements. The 2013 Council of Graduate Schools (CGS) study that examined completion and attrition trends for master's programs at five campus-based institutions provides the only national level data available on the subject. This study found that within 6 months, 10% of master's students attrite from the institution while 17% leave within 1-year (CGS).

Age is an important factor when examining attrition as 28% of students 35 years and older left the institution within 1-year compared to 23% of students age 30-34, 19% of students age 25-29, and 15% of students age 20-24 (CGS). Similar trends are found when examining master's student completion where 41% of master's students complete their degree after 2 years, 60% after 3 years, and 66% after 4 years (CGS, 2013). According to the CGS study, the median time-to-degree is 23 months, although there is variation based on field of study and age. Younger master's degree students finish quicker (23 months) compared to the master's students who are 35 years of age or older (28 months; CGS). These rates may suggest there is room for improvement to ensure more students persist and complete their master's degree. These figures do not take into account employer support for their employees seeking a master's degree.

Adult undergraduate students, typically identified as age 24 or older, aspire to obtain a higher education credential for a variety of reasons including for their own enrichment, to be an example for their children, or to increase their chances for a job or

promotion (Blumenstyk, 2018). Enrollment in graduate school, and master's programs in particular, is primarily driven by the desire for increased opportunities for promotion, advancement, and/or pay increases (CGS, 2013). Students have good reason to believe that advanced credentials will bring pay increases as is reflected in the data. In 2011, the median annual earnings for an individual with a master's degree was $13,000 more than an individual with a bachelor's degree (Baum, Ma, & Payea, 2013). In addition, bachelor degree holder lifetime earnings are 1.65 times higher than a high school graduate while master's degree holders earn 1.96 times more (Baum, Ma, & Payea, 2013).

Age plays a role in explaining mean earnings differences as individuals with master's degrees who are between the ages of 35 and 44 earn 23% more than those with bachelor degrees who are the same age (Baum & Steele, 2017). Additionally, a white paper about the return on investment of Cigna's educational reimbursement program found positive results for the employee. Front line employees (entry level to mid-manager) who used Cigna's educational reimbursement program had more career path opportunities and a 43% wage gain over 3 years compared to non-participants (Lumina Foundation, 2016).

Students pursuing advanced degrees are not the only beneficiaries of their efforts as employers also benefit when their employees pursue additional education credentials. A study by Prince, Burns, and Manolis (2014) about students enrolled part-time in MBA programs found that as students progressed through their degree, the level of integration into the organization increased. Integration is associated with organizational commitment and productivity, and for this study the integration is driven by coworker support

(helpfulness of coworkers, acceptance as part of the team, adjusting to the organization) and future prospects (potential for career, happy with rewards, advancement/promotion opportunities). Flaherty's (2007) case study research investigated tuition reimbursement and found that participation in such a program reduces employee turnover. Related, the Lumina Foundation's (2016) research into Cigna's educational reimbursement program found a return of investment of 129% due to promotions, internal transfers, and reduced turnover costs. The study found that participants in the educational reimbursement program were 8% more likely to be retained and 7.5% more likely to transfer, which results in significant reduced costs compared to replacing an employee.

Of the 3 million graduate students (masters and doctoral) enrolled in Fall 2017, three out of four are over the age of 24, according to Blumenstyk (2018). Furthermore, according to the National Center for Education Statistics (NCES) 2015-16 National Postsecondary Student Aid Study (NPSAS:16), 48% of master's students are 30 years of age or older (2016). This same survey found that 84.2% of master's students were employed during their studies (including assistantships). Of these master's level students who are working, 42% consider themselves students who are working to meet expenses whereas 58% are employees who decided to enroll in school. A major challenge facing adult students is their work schedule and the difficulty they have attending courses during typical work hours according to Blumenstyk. One strategy used by institutions to overcome this barrier is to offer distance education courses and programs where students are not bound by location (Blumenstyk, 2018; Cowen & Tabarrok, 2014). Distance

education programs allow students to take course from virtually any college that offers the program.

Different types of support are needed to ensure master's level students continue their degree, including support from their employers. Institutionally, master's students derive value from having professors who are excellent teachers and role models and when they have perceptions of support that includes timely and clear feedback and being able to participate in research/projects (Hardre & Pan, 2017). Institutions can also provide students with teaching or graduate assistantship opportunities to help cover the cost of school, although this support is unlikely to be used by students with annual income levels over $30,000 as they are typically employed elsewhere (Radwin et al., 2018). Another important way an institution can support working master's students is to schedule courses in the evenings or make courses available through distance education as not to conflict with work schedules (Kowalski, Dolph, & Young, 2014).

Distance education, as defined by the NCES (2018) is "Education that uses one or more technologies to deliver instruction to students who are separated from the instructor and to support regular and substantive interaction between the students and the instructor synchronously or asynchronously (p. 8)." Enrollment in distance education graduate courses has increased each year since 2012 when the percent of graduate students enrolled in distance education courses was slightly over 29% according to Seaman, Allen, and Seaman (2018). They also found that in 2016 just under 37% of graduate (masters and doctoral) students took a distance education course.

Institutions offer distance education courses and programs because it allows students to enroll who might not otherwise be able to attend school in a brick and mortar institution. Students are attracted to distance education because of the flexibility to learn the course content and complete the work on one's own schedule rather than having to be on a campus in a classroom at specific times. While the flexibility is certainly a benefit, students still must figure out how to balance school with their job and family because 86% of graduate students enrolled in distance education programs are employed (71% full time), and over half have children under the age of 18 (Clinefelter & Aslanian, 2017). This balance is one of the most challenging aspects working adult students face, particularly those with children who need to find childcare, which often results in having to plan out nearly every minute of every day (Ziskin, Torres, Hossler, & Gross, 2010).

The focus of this study was to determine the supports employers are providing to their employees enrolled in distance education master's level programs and whether employer support is associated with first-year student retention. There is potential micro, macro, and mega level impacts of this study (Kaufman, Oakley-Browne, Watkins, Leigh, 2003). At the micro, or individual level, attrition from higher education results in a loss of time that was spent on studies, money paid in tuition, and future earnings due to not obtaining an advanced credential (Johnson, 2012). As an individual achieves educational credentials the likelihood of needing public assistance (SNAP, School Lunch, and Medicaid) and engagement in unhealthy behaviors (smoking, inactivity, obesity) decreases (Baum, Ma, & Payea, 2013). Similarly, as academic achievement increases so does the likelihood of volunteering (Bureau of Labor Statistics, 2016) and voting

(Current Population Survey, 2015). These are positive traits. The institution, macro level, is also negatively impacted in terms of lost revenue and institutional reputation as low retention rates typically reflect poorly on the institution (Raisman, 2013). With the understanding that individual earnings increase as educational attainment increases, the mega or societal level is impacted through the loss of federal and state income taxes when attrition is high (Schneider & Yin, 2011). I explored whether employer supports contribute to employee first-year retention and revealed insights that apply to the micro, macro, and mega levels.

The following sections are discussed within the remainder of this chapter: background, problem statement, purpose of the study, research question and hypotheses, theoretical framework providing the foundation for the study, nature of the study, definitions, assumptions, scope and delimitations, limitations, significance and a summary of the chapter.

Background

The research conducted on employed students tends to find a negative relationship with academic success on a variety of measures. Most of the available literature examines various outcomes at the undergraduate level. For example, researchers have found that undergraduate students who work accumulate fewer credits, particularly if the student is work oriented (versus school oriented) or working more than 20 hours per week (Baert, Marx, Neyt, VanBelle, & Van Casteren, 2018; Darolia, 2014; Triventi, 2014). In addition, a lower percentage of students who work are considered “A” students (GPA of 3.67 – 4.00) compared to their nonworking classmates (24% versus

32%; Keene, 2012). Other findings revealed lower final exam scores (by.16 for each hour of paid employment) in an economics course for working students (Hwang, 2013). Qualitative research insights find that students work to avoid debt and to maintain a certain lifestyle they are used to living (Evans, Gbadamosi, & Richardson, 2014). When work-school conflict arises, work is almost always prioritized above school (Richardson, Evans, & Gbadamosi, 2014).

Fewer researchers examined employed students in master's level programs. The CGS (2013) has conducted the most comprehensive research study on master's completion and attrition. The research found that 53% of their graduating student sample and 73% of their stopped out/dropped out sample worked while enrolled. Furthermore 81% of the stop out/dropout sample worked more than 30 hours per week compared to 68% of the graduating students. This study also identified 'pressure from outside employment' as the most frequently cited factor for stopping/dropping out.

Qualitative research studies on master's level students investigated how individuals balance work, family, and school with findings revealing that when conflict arises both work (Andrade & Matias, 2017; Eller, B.F.V.D de Araujo, & de Araujo, 2016) and family (Sallee, 2015) take priority over school. However, support from school peers is found to help mitigate the school to work and family conflicts that arise (Andrade & Matias, 2017; Hardre & Pan, 2017). Similarly, professional and departmental activities (conferences, research with faculty, internships) are associated with likelihood to persist (Cohen, 2012).

The research literature has touched on some of the supports that employers give their undergraduate employees to encourage degree progress, such as tuition reimbursement, flexible working hours, and allowing for schoolwork to be completed during regular working hours (Evans, Gbadamosi, & Richardson, 2014). At the master's level, some researchers have suggested flexible work schedules that allow for the ability to work earlier or later than usual, make up work hours on weekends, or allow for schoolwork to be completed during normal working hours (Sallee, 2015), the ability to use work projects for school (Thune & Storen, 2015), and coworker support (Prince, Burns, & Manolis, 2014; Wyland, Winkel, Lester, & Hanson-Rasmussen, 2015) are associated with positive outcomes. Employers can provide advancement opportunities in the form of role and/or salary increases, and they can provide other financial support by providing stipends or reimbursement for all or portions of the program costs (Saar, Voormann, & Lang, 2014). No researchers have examined the potential relationship between employer supports and degree progress of master's students.

One of the challenges of student research is controlling for all the variables that may be influencing student behavior. In many cases the covariates in studies examining predictors of retention stem from research with traditional undergraduate students. The undergraduate retention models include individual and family background characteristics, institutional/goal commitment, and social and academic integration (Bean, 1979; Spady, 1971; Tinto, 1987; 1993). While few models of retention at the master's level are available there is literature that examines specific aspects that have impact.

One of the few master's level persistence models is called the Empirical Model of Master's Student Degree Progress (Girves & Wemmerus, 1988). The model was based on the foundational undergraduate retention theories of Tinto (1987) and Bean and Metzner (1985), but also focused more on the student-advisor relationship and financial support. Girves and Wemmerus (1988) proposed a two-stage model with an initial set of variables and a set of intervening variables. The first stage consisted of departmental characteristics, student characteristics, financial support and student-advisor relationships. The intervening variables included grades, involvement in the program, satisfaction with the department, and alienation. In this model 30% of the variance in persistence can be explained while grades and department characteristics were most related to degree progress.

Cohen (2012) developed the most recent master's level model called the Master's Student Persistence Model. This new model accounted for 14% of the variance in persistence. The constructs used in the model included background variables, academic variables, environmental variables, program variables, professional integration variables, psychological variables, and intent to persist. Of these, student age (background variable), involvement in departmental and professional activities (professional integration variable), and intent to persist were the best predictors of persistence.

Best practices in online program and course design at the master's level can impact student progress and completion particularly by ensuring institutional supports are in place such as the registrar, admissions, academic advising, technical support, and financial aid (Aversa & MacCall, 2013; Stevenson, 2013). A case study of one Master of

Information and Library Studies program by Aversa and MacCall (2013) showed 2-year graduation rates of 68% and 4-year graduation rates of 83% by focusing on barriers to completion in their program design. Other research (Aversa & MacCall, 2013; Martin & Bolliger, 2018; Milman, Posey, Pintz, Wright, & Zhou, 2015) has identified engagement with peers, instructors, and content as important for student satisfaction with the expectation that the institution provides these opportunities. A specific focus on the connectivity, presence, and responsiveness of faculty is identified as important to master's students in online programs (Joyner et al., 2014; Schroeder et al., 2016). Schroder et al. (2016) found that online master's students desired high levels of connectivity with advisors (52% desire very high) and less with students (12% very high). Through student interviews Joyner et al. (2014) identified four impactful ways faculty connect with online students. Connectivity was experienced by interactions outside the classroom, using classroom technology and assignments, through feedback, and through engagement and presence.

The literature around employer support for students enrolled in master's degrees is limited in scope as it is focused on campus-based programs and on solving the family and work conflict with school. There is a gap in the literature regarding employer related support for distance education master's degrees, and how that support impacts degree progress. The current research available does not investigate the extent that employer support contributes to degree progress.

Despite the research literature conclusions that working while studying is detrimental to academic success, there will continue to be students who work. In fact,

since the year 2000, over 70% of master's students were employed (including work study or assistantships) either full or part time (NCES, 2019). This study identifies strategies employers and employees can use, and that institutions of higher education can promote to help employees persist in their master's degree studies.

Problem Statement

Employed master's level students must often balance work, family, and studies resulting in lower and slower rates of program progression and completion compared to students who do not work (Beerkens, Magi, & Lill, 2011; Council for Graduate Schools, 2013). In this study, the effect employer support has on program progression for students who are employed full time and enrolled in a master's programs was investigated. There is little research that examines specific employer provided support that contributes to first-year retention for master's students enrolled in distance education programs.

Previous studies regarding distance education have been primarily qualitative and focused on understanding how students balance work and family to avoid conflict with school. The primary findings from these studies show that when conflict arises both work and family take priority over school and that having supportive classmates is less important than having a connection with faculty (Andrade & Matias, 2017; Prince, Burns, & Manolis, 2014). It is also noted in the research that when working students at traditional brick and mortar institutions receive social support from coworkers, and when employers allow a flexible work schedule it alleviates the work-study conflict (Sallee, 2015; Wyland, Winkel, Lester, & Hanson-Rasmussen, 2015). Research has not considered specific employer supports but rather consider *being employed* a variable in

the research (Cohen, 2012). This research built upon previous findings and explored the specific relationship of employer support as it relates to first-year retention.

Purpose of the Study

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate. In this study, the types of support that are provided by employers and whether these supports contribute to degree progression when controlling for the variables known to influence student progression was investigated.

The independent variables in this study include demographics (age, gender, ethnicity), background characteristics (bachelor degree GPA, parental education, previous distance education experience), external variables (living with partner, children, employment status, income, ongoing care for an adult, employer support), institutional variables (overall satisfaction, satisfaction with support services), integration/socialization (satisfaction with instructors, connectedness to students, connectedness to faculty) and intent to graduate (self-efficacy). The dependent variable was a nominal yes/no indicator to identify whether a student was enrolled 1-year from their first term of enrollment.

Research Question and Hypotheses

The following research question was used to address the understanding of the variables associated with employer support for distance education master's degree:

To what extent can distance education master's degree student's first-year retention be predicted by employer support after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate?

H_0: Employer support cannot predict distance education master's degree student first-year retention after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

H_1: Employer support can predict distance education master's degree student first-year retention after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

Archival data were used to answer the research question in this study. The dependent variable of enrollment 1-year from a student's first term was dichotomous nominal in that enrollment at 1-year from the program start occurred, or did not occur. The independent variable of focus was whether or not the student received support from their employer while the other independent variables were used to control for their impact on student progression.

Theoretical Framework

Based on Price's (1977) model of turnover in work organizations and Tinto's (1975) theory of individual departure from institutions, Bean and Metzner (1985) developed their conceptual model of nontraditional undergraduate student attrition. The aim of the model, and what makes it unique, is that it attempts to take into account the needs and experiences of nontraditional students which they define as "older than 24, or

does not live in a campus residence, or is a part-time student, or some combination of these three factor"(Bean & Metzner, 1985, p. 489).

The main theoretical difference between Tinto (1975; 1987; 1993) and the nontraditional model (Bean & Metzner, 1985) is that the latter assumes students have developed their own social support system outside of the institution and that the social environment within the institution is not influential. Due to this assumption the model emphasizes the impact of environmental variables (finances, hours of employment, outside encouragement, family responsibilities, and opportunities to transfer) on attrition. The nontraditional student model assumes environmental variables influence attrition more than academic variables (study habits, academic advising, absenteeism, major certainty, and course availability) to the point where if academic variables are good but environmental variables are poor, students would be expected to leave school.

While additional detail about the nontraditional student attrition model are explained in Chapter 2, the main reason the model relates to this study is because of the similarities between the nontraditional student definition and students enrolled in distance education programs. Students in distance education programs do not rely on the social integration aspect of education since there are significant challenges becoming socially integrated without ever being face to face. In addition, 72% of students in distance education programs are age 30 or older so they have already established their social support networks (Clinefelter & Aslanian, 2017).

Although Bean and Metzner's (1985) attrition model was developed based on undergraduate students, it has been used as the theoretical basis for other studies as well

(Cohen, 2012). Nontraditional undergraduate students have many of the same characteristics and challenges as master's level students. Both student groups are older than 24 years of age, more likely to have a partner, to be working, and to have children. This model translates well for use with master's level students in distance education programs.

Nature of the Study

The research question seeks to understand the association between employer support types and student progression. A quantitative analysis allowed the researcher to control for factors that may impact the outcome (Creswell, 2009). I used a quasi-experimental design as secondary survey data was analyzed (Shadish, Cook, & Campbell, 2001).

Based on previous research and theoretical foundations (Bean & Metzner, 1985; Cohen, 2012; Girves & Wemmerus, 1988) a number of independent variables were included in this study. Age, gender, and ethnicity made up the demographic independent variables while the student background characteristics included previous degree GPA, parental education, and previous distance education experience. Living with a partner, number of children, providing ongoing adult care, finances, employment status, and types of employer support are the external variables while institutional variables included overall student satisfaction and student satisfaction with support services. Additionally, the integration/socialization related independent variables included satisfaction with instructors, connectedness to other students in their courses, and connectedness to faculty. Lastly, self-efficacy items that measure intent to graduate are included. The dependent

variable analyzed for this study indicated whether the student was enrolled in courses 1-year from their first term of enrollment.

Archival data were analyzed from an online, for-profit university to complete this study for students who were enrolled in a master's degree program. The specific data examined came from the institution's annual student satisfaction survey of 2017. Additional data points from the institution's student information system including start date, indicator of enrollment in Fall 2018 term, number of transfer credits, parental education, and bachelor degree GPA, were requested from the Office of Institutional Research and Assessment. Binary logistic regression was used to analyze the research question as the dependent variable is dichotomous (Warner, 2013).

Definitions

Distance education: An education modality that uses technologies to bring instruction to students who are not in a classroom in order to support regular and substantive interaction with faculty synchronously or asynchronously (National Center for Educational Statistics, 2018a).

First-year retention: Measurement of student persistence in their educational program at their institution examining whether the student enrolled in the term 1-year from their starting term (National Center for Educational Statistics, 2018b).

Full-time employment: Paid work for 35 hours per week or more (Bureau of Labor Statistics, 2018).

First generation student: Student whose parents have not completed a four-year college degree (Engle & Tinto, 2008).

Self-efficacy: An individual's beliefs about their ability to control their own lives and the events that impact their lives (Bandura, 1993).

Employment status: The type of contract of employment an individual has with other individuals or organizations in their job (Organization for Economic Co-operation and Development, 2003)

Employer support: Support, financial or otherwise, provided from within the organization toward degree completion (CGS, 2013).

Student satisfaction: A short term point of view that is held based on a student's experience with the institution they attend (Elliott & Healy, 2001).

Social integration with students: Student interactions with peers and development of friendships and a sense of community (Tinto, 1975; 1993).

Social integration with faculty: Student interactions with faculty and sense of faculty support (Tinto, 1975, 1993).

Institutional commitment: Student educational goal related to the importance of earning a degree at the present institution (Bean & Metzner, 1985).

Assumptions

I assumed that there was no difference between students who responded to the institutional satisfaction survey and those who did not. There are assumed similarities based on employment status, levels of satisfaction, sense of connectedness, and self-efficacy. In addition, it was assumed that employed students have informed their employer of their master's degree pursuits.

It was also assumed that respondents to the institutional student satisfaction survey who indicate full-time employment actually work 35 hours per week or more. However, in the United States, full-time employment is not something defined by the federal government as it is up to individual employers to determine this status (United States Department of Labor, 2018).

Scope and Delimitations

The scope of this study was limited to examining online master's level students who are employed full-time and whether the support received from their employer influences first-year retention. The study was confined to using archival institutional data from an online for-profit university.

Limitations

This study was limited in its generalizability since the research is based on students from one, for-profit institution. In addition, the research is applicable to students in master's programs and differing results may occur if applied to other degree levels. Because this study is applicable to students enrolled in fully online asynchronous institutions, replication is not compatible with hybrid institutions (brick and mortar with distance education programs) or regular campus programs. The focus of this study was limited to the first year of enrollment in a master's program and cannot be used to examine college outcome measures such as graduation or time to degree.

Researcher bias is minimal. As an employee of the institution, I was involved in the development of the student satisfaction survey questions. However, the questions

were developed in years prior to the study to provide information to institutional leadership.

Significance

Few researchers have examined the specific employer supports that contribute to master's level degree first-year retention. Instead, much of the research literature focuses on how students balance work, family, and school (Andrade & Matias, 2017; Eller et al., 2016; Sallee, 2015; Wyland et al., 2013). Many of the theoretical models of student persistence include external variables, including employment (Bean & Metzner, 1985; Cohen, 2012); however, these models tend to view employment, or hours of employment, as a barrier and do not investigate the role of specific employer supports. The aim of most of these theoretical models is geared towards undergraduate students. As institutions continue to increase offerings of distance education programs that tend to draw working adults, additional research into the relationship between employer support and first-year retention is necessary. This study contributed to the field by advancing knowledge in the area of degree progression for employed master's students in distance education programs.

Findings from this study reveal additional work support related data points for institutions to collect as students apply for master's programs. This information can be used to better help facilitate conversation with the applicant toward strategies for obtaining employer support. This study's findings also contribute to the development of future models of online master's student persistence. Insights taken from this research can also be used by employers to better support their employee's educational goals.

The social change effect on individual students could be meaningful. There are implications to increase master's degree progression which would ensure the time and money spent on studies was worthwhile. There is a likelihood for higher future earnings and employability by completing a master's degree (Ma, Pender, & Welch, 2016). In addition, public assistance needs and engaging in unhealthy behaviors decrease as education levels increase (Baum, Ma, & Payea, 2013). Advanced educational attainment is also correlated with increased civic engagement (Beau of Labor Statistics, 2016; Current Population Survey, 2015).

Summary

Master's level enrollments make up the vast majority of all graduate level enrollments (Okahana & Zhou, 2017). The number of students enrolling in master's level programs has been increasing for the past 5 years with approximately 1.4 million enrolled as of Fall 2016. However, because data on graduate level students are not required by the federal government for reporting purposes, little information is available about master's student progression. The most significant study on the topic by the CGS (2013) found attrition rates within 1-year at 17%; however, for students aged 35 or older, the attrition rate within 1-year was higher at 28%. This finding is not necessarily surprising considering that master's level students tend to be older and are trying to balance work and family with their studies (Hardre & Pan, 2017).

Older students have been drawn to the availability of distance education programs that do not require them to be on campus or to meet at a specific time of day for class and enrollments in this modality has been increasing (Blumenstyk, 2018; Clinefelter &

Aslanian, 2017). I examined specific employer supports and investigated their impact on first-year retention for master's level distance education students.

Both employers and employees benefit from advanced degrees. Employers benefit by deepening the integration of an employee into the company and receive a good return on investment if they support their employees financially (Lumina Foundation, 2016; Prince, Burns, & Manolis, 2014). Employees benefit through increased earnings and employability (Baum & Steele, 2017; Lumina Foundation).

The majority of research on the topic has been conducted at the undergraduate level, yet the master's level research available has cited outside employment as a main stopout/dropout factor (CGS, 2013). The majority of research at the master's level has viewed work as a barrier and sought to understand how students balance school with work and family responsibilities (Andrade & Matias, 2017; Eller et al., 2016; Sallee, 2015; Wyland et al., 2013). Although the models on persistence have traditionally been at the undergraduate level, they have identified many variables of impact (Bean & Metzner, 1985; Tinto; 1987; 1993). Bean and Metzner's (1985) model of nontraditional undergraduate student attrition was created to account for the type of student who is not impacted by the social environment of the institution. This model provides a useful theoretical foundation for studying students enrolled in distance education programs.

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to

graduate. The research focused on the types of support provided by employers and whether these supports contributed to degree progression. The results of this study provide insights into the role of employer support on degree progression for online master's students, at a for profit distance education university which contribute to advancing the knowledge on the topic in the field.

This chapter included the background for the study, the problem statement, purpose, research questions, theoretical framework, and nature of the study. In addition, definitions were provided, assumptions, scope, limitations, and significance were also outlined. The second chapter focuses on reviewing the literature around employer support for master's students enrolled in distance education programs. Specifically, the literature explores Bean and Metzner's (1985) nontraditional student model of attrition as well as the key variables used in the study.

Chapter 2: Literature Review

Employed students enrolled in master's level programs are often older than traditional students and attempting to juggle other responsibilities, such as a family, in addition to their work and studies (Hardre & Pan, 2017). This combination of responsibilities often results in a longer time to complete (28 months for students 35 years of age or older versus 23 months for students age 20-24), for those who do finish (Beerkens, Magi, & Lill, 2011; Council for Graduate Schools, 2013). Over the last decade the popularity and number of distance education offerings has increased with just over 29% of graduate students enrolling in online courses (Seaman, Allen, & Seaman, 2018). More students are enrolling in entire programs that are offered at a distance, primarily due to the convenience of not having to be in a physical building at a specific time for class. Distance education allows a student to work a full-time job and attend school at the same time with far more convenience than attending a physical campus (Allen & Seaman, 2011). The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

Little research is available about master's level retention rates, particularly at the national level. The CGS conducted a pilot study in 2013 that examined completion and attrition trends. Key findings from this research found that 10% of master's students left the institution without completing their degree within six months and 17% within 1-year.

Higher attrition rates were found for students who were older (CGS, 2013). Attrition rates within 1-year of starting a master's degree for students 35 years and older was 28% compared to 23% for the 30-34-year-old age group, 19% for students between 25-29 years old, and 15% for those 20-24 years old (CGS, 2013). However, the CGS study only included data from five campus-based institutions, none of which were for-profit. Student employment data showed that over 56% of master's students worked 30 hours per week or more while 24% did not work at all (NCES, 2016). The available literature suggested that being employed while pursuing a master's degree can negatively impact degree completion and that the numbers of students attempting to balance work and school through distance education programs is increasing (CGS, 2013).

The remainder of this chapter focuses on the body of research literature related to master's student degree progression. In particular, the following areas are included: literature search strategy, theoretical foundation, master's student retention, research variables, and a summary.

Literature Search Strategy

Literature searches were conducted using multiple electronic databases including: Academic Search Complete, Business Source Complete, Education Source, Educational Resource Information Center (ERIC), PsycARTICLES, and PsycINFO. Additional literature searches were conducted using Google Scholar and the ProQuest Dissertations & Theses Global database. The reference lists of relevant articles were particularly helpful in identifying other important resources.

Key terms used to search the databases focused on the student type, the outcome, and additional factors. Specific student type key terms searched included: *master's students, graduate students, master's degree, master's program, college students, distance education, higher education, post-secondary education,* and *online education.* The outcome related key terms searched included: *graduation rate, time to degree, academic achievement, academic outcome, completion, retention, degree progression,* and *academic persistence.* The terms used to search for additional factors included: *employer support, employment, school-work facilitation, employer-supported education, work & education, labor & education, family-work relationship, education-work relationship, employment level,* and *student employment.*

The search for relevant research literature focused primarily on peer-reviewed scholarly articles. However, publications from national educational research organizations as well as books relevant to student progress and completion were included. The majority of the literature used was written within the past 5 years, however, some books and seminal research articles were published earlier. In addition, due to the lack of research literature about employed master's students in distance education programs, a small portion of referenced literature is over 5 years old.

Theoretical Foundation

By combining educational models of attrition with work organization models of turnover, Bean and Metzner (1985) developed the conceptual model of nontraditional student attrition. The authors defined nontraditional students as those who are "older than 24, or does not live in a campus residence, or is a part-time student, or some combination

of these three factors" (p. 489). In Bean's (1979) model of student attrition, he assumed that student attrition is comparable to turnover in work organizations. Bean and Metzner developed the model of nontraditional student attrition using Tinto's student integration model and Price's model of employee turnover as their theoretical foundation. Despite the availability of other models created specifically for master's level students, discussed below, the Bean and Metzner model of nontraditional student attrition best fits the purposes of this study and was used as the foundation for this study.

One of the most well-known and often studied models of retention is Tinto's Student Integration Model (1975; 1987; 1993). Tinto used Spady's (1971) adaption of Durkheim's (1961) model of suicide to college life. Durkheim's model suggested that when individuals are not integrated into society, they are more likely to commit suicide. Tinto and Spady applied this concept by suggesting that students who are integrated (academically and socially) into the college are less likely to leave. Academic integration refers to the grades a student achieves as well as intellectual development (Tinto, 1975). Social integration happens through student involvement in extracurricular activities, informal peer group associations, relationships with faculty and staff, and friendship development (Tinto, 1975). Tinto also recognized the cost-benefit decisions students must make and that withdrawal from the institution will happen if investment of time, energy, and resources are perceived to be worth more elsewhere.

Within the Tinto (1975) model other variables are identified that contribute to student departure. These additional variables include goal commitment, institutional commitment, family background characteristics (socioeconomic status, parental

education), individual attributes (measured ability, gender), and past educational experiences (high school GPA, high school class rank). A visual depiction of this model is shown in Figure 1.

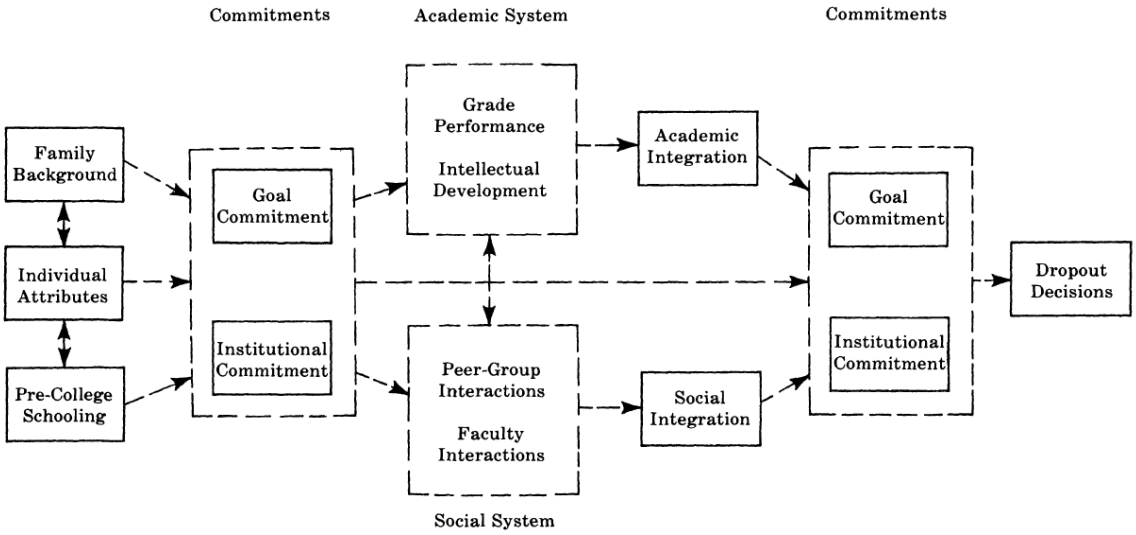

Figure 1. Tinto's student integration model. Adapted from "Dropout from Higher Education: A Theoretical Synthesis of Recent Research," by V. Tinto, 1975, *Review of Education Research, 45*, p. 95. Copyright 1975 by the American Educational Research Association; reproduced with permission from the publisher.

Similar to Durkheim's theory of suicide, Price's (1977) model of employee turnover is taken from an alternative field of study and applied to the field of education in Bean and Metzner's (1985) model. Price's model of employee turnover proposes that the organizational determinants of pay, integration, communication, and centralization impact employee satisfaction, and that satisfaction and opportunity directly influence turnover. The model assumes that continuous increases in pay, integration (development of close relationships), instrumental communication (directly related to performance), and formal communication (information officially transmitted from the organization) will probably result in lower levels of turnover. However, continuous increases in

centralization (where organizational power resides with a small number of individuals) will probably result in higher levels of turnover. These five areas are assumed to be related to satisfaction (typically high pay results in high satisfaction with pay, for example). As satisfaction increases lower levels of turnover are expected. Finally, with increases of opportunity (the availability of other jobs within the organization), lower levels of turnover are expected. A depiction of this model is shown in Figure 2.

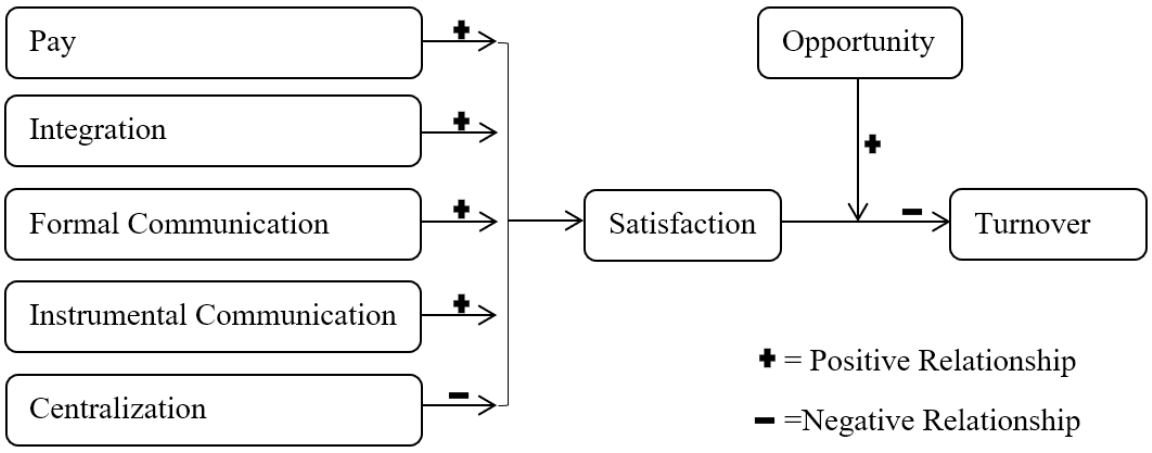

Figure 2. Price's model of employee turnover. Adapted from *The Study of Turnover* (p. 84), by J. Price, 1977, Ames, IA: The Iowa State University Press.

The nontraditional student attrition model (Bean & Metzner, 1985) takes pieces from the Tinto (1975) and Price (1977) models and applies them to nontraditional students. Bean and Metzner recognized that while traditional students attend college for both social and academic reasons, nontraditional students attend college primarily for academic reasons. While the classroom experience would be similar for both traditional and nontraditional students, nontraditional students are expected to have much more interaction with the external environment outside of campus. Therefore, this defining

characteristic must be accounted for in a new model of attrition for nontraditional students.

Using previous theoretical foundations, Bean and Metzner's (1985) nontraditional student attrition model included a number of different variables. Background and defining variables included age, enrollment status (number of credits), residence, educational goals (institutional commitment), high school performance, ethnicity, and gender. Academic variables included study habits, academic advising, absenteeism, major certainty, and course availability. Environmental variables included finances, hours of employment, outside encouragement, family responsibilities, and opportunities to transfer. Psychological outcomes included utility (usefulness of education for employment opportunities), satisfaction, goal commitment, and stress. In addition, GPA, intent to leave, and social integration variables are also included in the model. A depiction of this model is shown in Figure 3.

The key assumption to this model is that environmental variables are more important than academic variables (Bean & Metzner, 1985). This means that environmental support is expected to compensate for poor academic support, but poor environmental support will not compensate for academic support. With this understanding it would be expected that students leave school when both environmental and academic support are low and when environmental support is low but academic support is high. Conversely, it would be expected that students stay in school when both environmental and academic support is high and when environmental support is high but academic support is low.

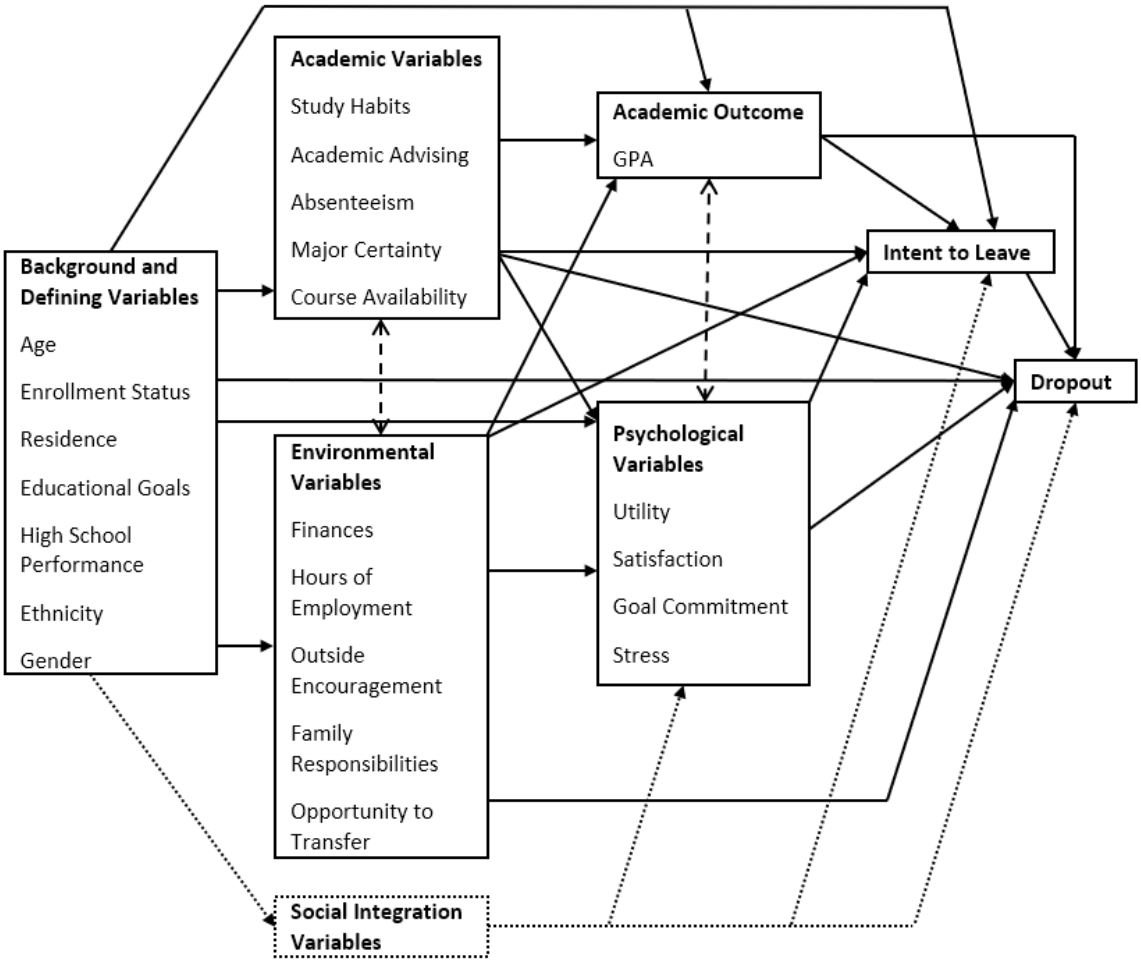

Figure 3. Bean & Metzner's nontraditional student attrition model. Adapted from "A Conceptual Model of Nontraditional Undergraduate Student Attrition," by J. Bean and B. Metzner, 1985, *Review of Education Research, 55*, p. 491. Copyright 1985 by the American Educational Research Association; reproduced with permission from the publisher.

Rovai (2003) developed a composite persistence model for distance education online programs. This model was heavily based on the Tinto (1975) and Bean and Metzner (1985) models regarding external factors, student characteristics, integration, and commitment. The model by Rovai also follows the assumption by Bean and Metzner that no matter how good an institution is, if the student cannot control the external factors, they are unlikely to progress. Rovai tried to account for research on online

distance education in the model. One specific addition to the model was recognition of the specific skills needed prior to admission for online studies such as computer literacy, information literacy, time management, reading and writing, and computer-based interaction (Rovai, 2003). The model also accounts for special needs of online students after admission like accessibility to services, consistency and clarity of program policies, self-esteem, identification with the school, and interpersonal relationships (Rovai, 2003). The last area of focus is pedagogy where Rovai suggest that online students have an expectation that the teaching style matches their learning style. Rovai recognized that online learning is very self-directed compared to traditional courses where reliance falls to the instructor for content and even assignment reminders. It should be noted, however, that the Rovai model was created with undergraduate students in mind and published at a time when online learning was still in its infancy and limited research literature was available. A depiction of this model, and indicators of where the Tinto and Bean and Metzner models are used is shown in Figure 4.

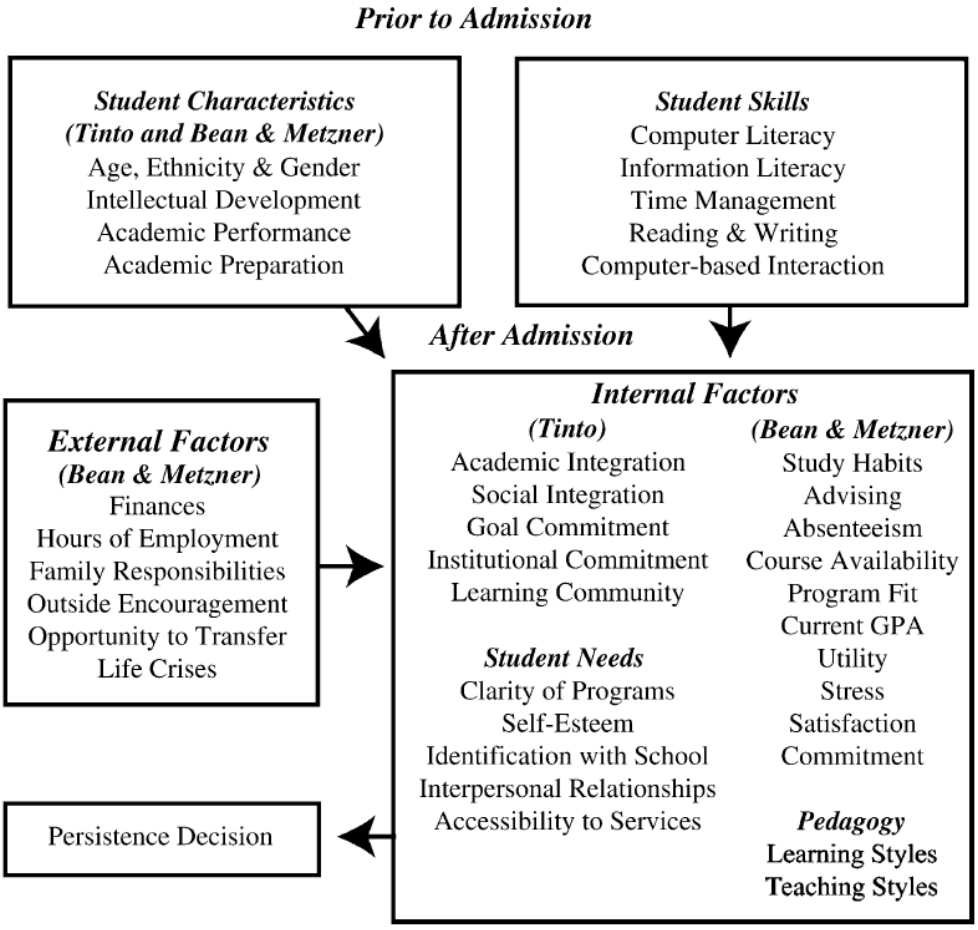

Figure 4. Rovai's composite persistence model for online distance education. Adapted from "In search of higher persistence rates in distance education online programs," by A. Rovai, 2003, *The Internet and Higher Education, 6*, p. 9.

Very few models for master's level persistence and completion have been created, however, two additional models are discussed. The first model is the empirical model of master's student degree progress by Girves and Wemmerus (1988). This model used department characteristics, student characteristics, financial support, and perceptions of faculty as the primary variables as well as grades, involvement, and satisfaction/alienation. No pre-entry characteristics were included in this model. Although financial support was included as a variable, the focus was on types of

institutional financial support and not outside employment. Nonetheless, their model found that grades, departmental characteristics and student characteristics were strongly related to degree progress. This model accounted for 30% of the variance toward predicting progress at the master's level. A depiction of the model is shown in Figure 5.

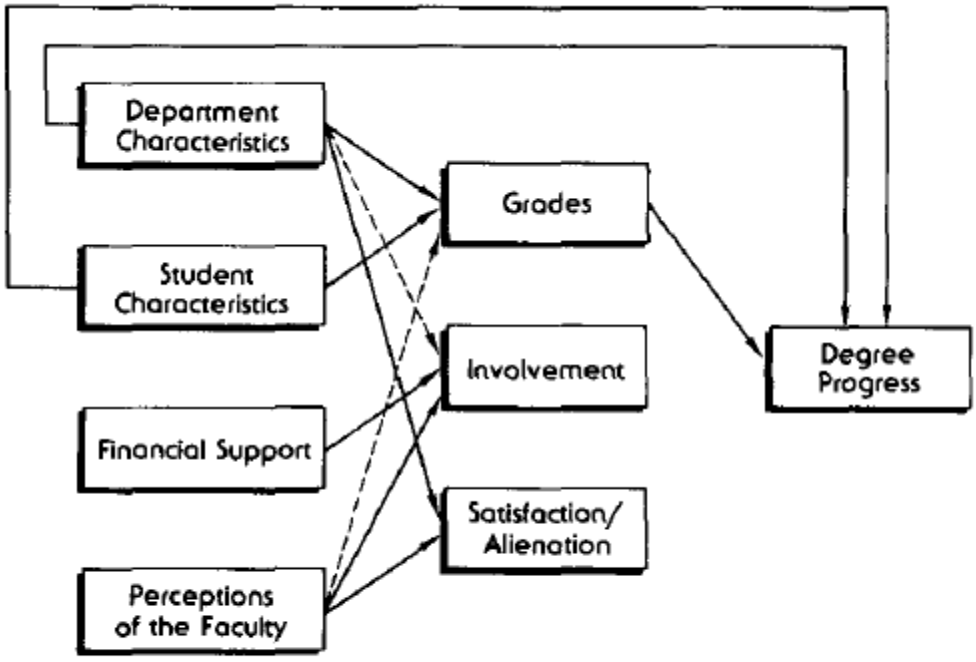

Figure 5. Girves and Wemmerus empirical model of master's student degree progress. Adapted from "Developing Models of Graduate Student Degree Progress," by J. Girves and V. Wemmerus, 1988, *Journal of Higher Education, 59*, p. 179. Copyright 1988 by The Ohio State University and Taylor & Francis; reproduced with permission from the publisher.

Most recently Cohen (2012) developed the master's student persistence model. In this model Cohen aimed to create a single factor from multiple questions and kept the variables with Cronbach alpha scores above .60. This model accounted for 14% of the variance in the study, which is a bit lower than the other models discussed. Intent to

persist was found to be the best predictor of persistence followed by student's age and involvement in professional and departmental activities. Cohen's study was focused on master's students at a campus-based institution and focused only on one aspect of the external environment (family encouragement). A depiction of the Cohen model is shown in Figure 6.

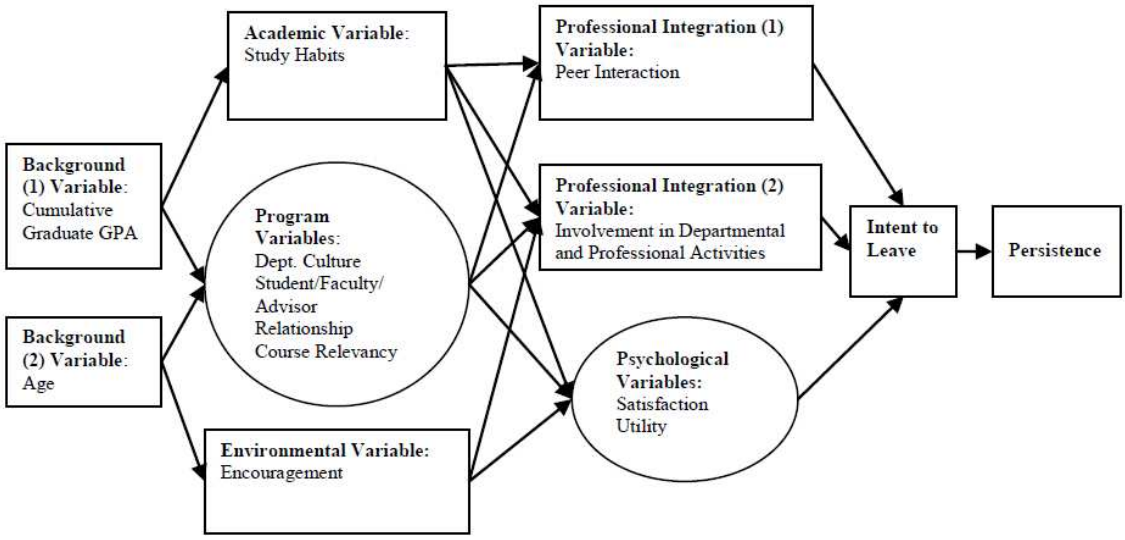

Figure 6. Cohen's master's student persistence model. Adapted from "Persistence of Master's Students in the United States: Development and Testing of a Conceptual Model," by K. Cohen, 2012, p. 80. Copyright 2012 by K. Cohen.

The Bean and Metzner (1985) nontraditional student attrition model served as the theoretical foundation for this study. The model accounts for the lack of social integration required for nontraditional students, that other models do not. This model is appropriate since master's students are most like nontraditional students in terms of their external responsibilities, age, and residential status.

In relation to the current study, the nontraditional student attrition model (Bean & Metzner, 1985) is relatable to students taking distance education courses as the concern

for social integration is incompatible with the delivery mode. In addition, the other core focus of the model is on the environmental variables which are the dominant variables in a distance education master's student's life. As noted in chapter one, adult students bring with them different challenges to manage (family, work, finances) which are exclusively environmental variables (Andrade & Matias, 2017, Evans, Gbadamosi, & Richardson, 2014; Sallee, 2015). This study builds upon the framework of the nontraditional student attrition model by applying it to online master's level students. In addition, this study delved deeper into the environmental variable of employment to determine if there are ways to gain additional support that would aid in degree progression.

Master's Student Retention

Very little data exists about master's degree retention rates and virtually no data is available about distance education master's degree retention rates. The CGS research from 2013 is the most recent large-scale study on the topic as it examined five institutions. The main findings of this study showed a 10% attrition rate of master's students within six months and 17% attrition within 1-year (CGS, 2013). In addition, attrition rates were examined based on student age and found that 28% of master's degree students 35 years and older left the institution within 1-year of starting compared to 23% for the 30-34-year-old age group, 19% for students in the 25-29 age range, and 15% for those 20-24 years old (CGS, 2013). Other master's degree data are institution specific, such as the findings at the University of Georgia where first-year retention data are not available but found that almost 88% of their students were retained 2 years from starting their program (Barry & Mathies, 2011). Both studies focused on campus-based master's

programs exclusively. Unlike undergraduate programs, master's and doctoral programs are not required to report retention and graduation rates to the federal government and virtually no national level data for distance education master's programs exists. The available research about distance education master's student degree progress focuses on student perceptions and program level studies.

A master's student enrolled in a distance education program tends to be different from a master's student enrolled in a campus-based program. Table 1 shows the differences between the two where student enrolled in distance education programs are likely to be older, employed, female, and non-White. Much of the research about students in master's level distance education programs has focused on the perceptions of their experiences and how they relate to persistence. There are common findings in the literature about the characteristics that lead to student success and include student self-efficacy, social support, institutional support, and relevancy of the program to the student's future profession (Budash & Shaw, 2017; Fedynich, Bradley, & Bradley, 2015; Fincham, 2017; Hardre & Pan, 2017; Holzweiss, Joyner, Fuller, Henderson, & Yang, 2014; Milman et al., 2015; Stevenson, 2013; Yang, Baldwin, & Snelson, 2017). Considering the modality and the demographic profile of the students enrolled in distance education programs, these findings are not surprising and are examined in greater detail.

Table 1

Demographic Differences Between Students Enrolled in Graduate Distance Education Programs and Campus-based Programs.

Type	Gender (female)	Ethnicity (minority)	Age (35+ years)	Employment (full & part time)
Distance education	68%	40%	45%	81%
Campus-based	34%	17%	8%	51%

Note. Campus-based data from CGS (2013) represents master's students. Employment for campus-based was calculated from 3 surveys in the CGS (2013) study.
Distance education gender, ethnicity, and employment data representing graduate students adapted from *Online College Students 2018: Comprehensive Data on Demands and Preferences* (p. 54, 55, 56), by A. Magada and C. Aslanian, 2018, Louisville, KY: The Learning House, Inc.
Distance education age data representing graduate students adapted from *Online College Students 2017: Comprehensive Data on Demands and Preferences* (p. 42), by D. Clinefelter and C. Aslanian, 2017, Louisville, KY: The Learning House, Inc.

Fincham (2017), Fedynich, Bradley, and Bradley (2015), and Budash and Shaw (2017) all conducted qualitative research to understand the perceptions of master's students enrolled in distance education programs. In each of these studies, the importance of self-discipline, time management, and organization was identified as a frequent comment made by students because of the isolation that comes with the modality. Ward and Dixon (2014) studied the self-efficacy of master's students in a distance education program that required a thesis and found that student self-efficacy was able to instill resilience and coping that resulted in successful student outcomes. Interestingly, the study by Ward and Dixon was conducted in New Zealand with education students, while Fincham's research was in the United Kingdom on a Catholic School Leadership program. Fedynich, Bradley, and Bradley conducted their research across multiple masters and doctoral programs in the United States, and while Budash and Shaw's research was also conducted in the United States it focused on a health science program. The sense of responsibility and self-efficacy needed for students in distance education

programs to be successful seems to be widely accepted as the findings are noted across multiple countries and cover multiple fields of study.

The sense of isolation for students in distance education programs can also be addressed by ensuring students are engaged with faculty and students. Students expressed the desire for faculty who teach distance education courses to provide timely and quality feedback (Holzweiss, et al., 2014; Joyner, Fuller, Holzweiss, Henderson, & Young, 2014). However, Baker (2010) found that while instructor immediacy was correlated with instructor presence, only instructor presence positively impacts student learning, cognition, and motivation. Additional research suggested that students desire relationships with faculty and advisors as these institutional members have responsibility to facilitate processes students must navigate (Bocchi, Eastman, & Swift, 2004; Fedynich, Bradley, & Bradley; Fincham, 2017; Ross & Sheail, 2017; Schroeder, Baker, Terras, Mahar, & Chiasson, 2016). Faculty caring and relatedness was the number one positive theme noted about students' master's experience according to Hardre and Pan (2017), while having the support of graduate peers and community was also noted. This aligns with the research by Budash and Shaw (2017) and Holzweiss et al. (2014) which identified peer support and opportunity for interactions as leading to student success.

Schroeder et al. (2016) found that students desired and experienced high levels of connectivity with their advisors and instructors but did not desire connections with other students. Other researchers examining nontraditional campus-based students found that when opportunities for students to meet with faculty and other students outside of the classroom were available, they were rarely utilized (Casstevens, Waites, & Outlaw,

2012). For students in distance education programs the faculty are truly the "face" of the institution and have the lead responsibility to develop the sense of community and belonging to the institution. This research seems to suggest that interactions with other students are less desired and less likely to contribute to developing a sense of community.

In addition to the sense of community, students also require support from the institution to give them the tools and guidance to progress in their studies. Convenience is often noted as the reason students enroll in distance education programs due to not having to be in a classroom at certain times (Cole, Shelley, & Swartz, 2014). Flexibility can also be thought of in terms of the number of courses taken per term and the number of terms required to complete the program. Waugh and Searle (2014) found that students who dropped out of online master's programs wanted to take courses based on their time availability rather than the expected two courses per term and were not as concerned about completing the program in as short of time as possible. In addition, when institutional support is built into the classroom it is favored by students. Well thought out discussion requirements as well as using a discussion as an icebreaker for student introductions were positively viewed by students (Joyner, Fuller, Holzweiss, Henderson, & Young, 2014; Martin & Bolliger, 2018).

Casstevens, Waites, and Outlaw (2012) recommended embedding support into the course structure to maximize use of the support. This research aligns with that of Milman, Posey, Pintz, Wright, and Zhou (2014) who found that over 95% of masters level students taking online courses rated the importance of having instructions/help embedded in courses as either important or very important. In this same study over 90% of students

felt the support services of the library, academic advising, technology support, and the registrar was important or very important.

Finally, in the studies where the relevancy of the program toward student career goals were considered, it was always the most cited reason students gave for their motivation and reason for persisting (Budash & Shaw, 2017; Hardre & Pan, 2017; Yang, Baldwin, & Snelson, 2017). This finding is not only relevant to students in the United States as research from Australia has also found that students are more likely to stay when course content helps them in their day to day jobs (Carroll, Ng, & Birch, 2013). Considering that over 80% of students enrolled in distance education program are employed, the relevance of the program to career goals is an expected narrative. While none of these studies considered employment or the role of an employer, the next section reviews studies that do.

Employment and Master's Level Studies

Little research literature was found on master's level students and the relationship of having a job and studying, while no literature was found that examined the topic from the perspective of students in distance education programs. This section focuses on the available qualitative literature examining the experiences of students trying to balance work and school as well as the quantitative studies examining the impact work has on academic outcomes. The section concludes with a review of the support employers are providing to their student employees and the level of return on investment the employers are seeing through their support.

A handful of qualitative research articles have been published that examine students in master's programs who are also working. One common thread among all the articles whether it be from Portugal (Andrade & Matias, 2017), Malaysia (Tumin & Faizuddin, 2017), Brazil (Eller, B.F.V.D de Araujo, & de Araujo, 2016), or the United States (O'Connor & Cordova, 2010; Sallee, 2015) was that of time management. The research by Tumin and Faizuddin did not include students who were trying to balance family in addition to their studies, yet the respondents felt that only dedicated students who can manage their time and separate work from school will be successful.

Other studies examined the balance between work, family, and school and found that partner/family support was a strong theme in each (Andrade & Matias, 2010; Eller, B.F.V.D de Araujo, & de Araujo, 2016; O'Connor & Cordova, 2010; Sallee, 2015). In these studies, not only was family support important, but when conflicts occurred the family responsibilities took priority (Sallee, 2015). Students relied on their partners and families to watch their children when they needed to study yet still found it hard to miss out on time that would have been spent with them (Eller, B.F.V.D de Araujo, & de Araujo, 2016; Sallee, 2015). While findings from O'Connor and Cordova (2010), and Andrade and Matias (2017), noted the importance of family support, both studies also identified the lack of workplace support as a challenge. In these situations, coworkers were dismissive of the value of the degree while supervisors downplayed the worth of their studies (O'Connor & Cordova) and others had a sense that they could not ask for additional support or extra time at work (Andrade & Matias). However, the research by Sallee, while focused on those in student affairs masters' programs and working at a

college or university, found more support from employers to study. Some employers in this study were very flexible in their support by allowing students to leave work early, complete coursework in the office, or allowed for time in class to count toward work hours. These supports and flexibility allowed for lower levels of work-family-school conflict and contributed toward degree progression. As Sallee identified, some employers are very supportive, however, being employed while working toward a master's degree is a challenge according to the research by Aarreniemi-Jokipelto and Back (2014). Their research examined why master's students dropped out of a program and found two primary reasons with the first being challenges related to the theses and the second being problems with the combination of work and school (including changes in working situation).

While the qualitative studies have focused on identifying the experiences master's students have trying to balance work and family with school, the quantitative studies have aimed to determine the effect of working while studying. A few studies looking at the impact of working while studying tend to examine undergraduate students but also include findings on master's level students (Beffy, Fougere, & Maurel, 2010; Beerkens, Magi, & Lill, 2011; Neyt, Omey, Verhaest, & Baert, 2017). Research by Beerkens, Magi, and Lill examined work and school in Estonia finding that employed students are 5% less likely to graduate. Additional findings showed that the impact of work is not linear and when a student reaches 25 hours of work per week is when academic study suffers. In particular, each hour over 25 hours worked per week results in 13 fewer minutes spent studying. While Beffy, Fougere, and Maurel conducted their research using a sample of

students from France, they found very relatable findings. This research suggested that master's students working 16 hours per week or more are less likely to graduate by 47 percentage points and that working students are less likely to pass the year end test by 43 percentage points. In a literature review examining the impact of working while in school (majority secondary and postsecondary) 42 of 48 studies reviewed had results of some form of negative relationship (Neyt et al., 2017). Of the remaining six, four reported no significant effects and two reported both positive and negative effects.

Other researchers have taken a more detailed research lens and focused on the relationship between the student employee and the work organization. Thune and Storen (2015) found that work interactions requiring time and commitment (project-based work and practice periods) were viewed as the most useful to students and prepared them for the labor market. However, short limited engagements with work organizations and practice periods did not impact student's ability to complete studies on time, whereas project-based work interactions did. The most important variable in this study was whether the work experience was relevant. When the experience is relevant and paid it prepares students for the labor market, however, it also reduces the chances of students finishing their studies on time. Thune and Storen's study used a Norwegian sample and while it identifies that 77% of master's students had some sort of interaction with a work organization but it did not identify whether students were employed full or part time. Prince, Burns, and Manolis (2014) studied part-time MBA students at a U. S. institution and found similar results to Thune and Storen around future employment. Enrollment in a part-time MBA program had a positive relationship with coworker support (helpful,

willing, and accepting) and future prospects (career opportunities, rewards, advancement). Prince, Burns, and Manolis (2014) however, did not study how progress through the MBA program was impacted.

An additional line of research has focused on the challenges and conflicts that come from balancing school and work. The CGS (2013) investigated factors contributing to completion and attrition finding that of the students who completed, 59% felt their employer frequently supported their master's education aspirations while only 48% of the students who stopped out/dropped out felt this way. Forty percent of the stop out/drop out survey respondents identified pressure from outside employment (long hours, job-related travel, etc.) as a large or moderate reason for stopping/dropping out. In recognition of the school-work conflict, Wyland, Lester, Mone, and Winkel (2013) examined the impact of MBA program enrollment on job performance. Findings from this research showed that when students are more involved in school (time and effort invested) they will experience greater school-work conflict since fewer resources will remain for work. Wyland et al. also surveyed employers of master's students for ratings of job dedication, interpersonal facilitation, and task performance and found that school-work conflict negatively predicted each. Wyland, Winkel, Lester, and Hanson-Rasmussen (2015) also approached the school-work relationship from a psychological point of view. Here the authors posit that psychological school involvement will increase the school-work facilitation as the student may, for example, apply theory learned in class to their work organization. The results showed an association between high levels of psychological school involvement and high levels of school-work facilitation. Wyland et al. also found that students who are

psychologically involved in their schoolwork and receive high levels of classmate, supervisor, and coworker support experience higher levels of school-work facilitation compared to students who receive lower levels of support. The researchers identified social support as a way to help students engage in both school and work but recognized the lack of literature on the topic.

Little information is available related to the support employers provide their employees who are enrolled in master's programs despite the fact that employers value work experience as a differentiator between other candidates and as an indicator of how individuals will perform in the job (Evans, Maxfield, & Gbadamosi, 2015). A survey of Estonian adult learners sought to identify the types of supports provided by employers (Saar, Voorman, & Lang, 2014). The findings, which cover all degree levels, showed that employers are providing motivation (encourages to continue studies, interested in studies), advancement options (career opportunity review, salary increase), financial support (cover enrollment fee, provide stipend), and flexible schedules (paid leave, study during work time). These supports were being offered to students at varying levels as 7% of students were offered financial support, 19% offered flexible schedules, 32% offered motivation, and 32% offered advancement options. Cohen and Greenberg (2011) also identified some employer supports that contributed to master's student persistence. Employers were rated as the second most important individual for persistence by students, following one's spouse/partner (Cohen & Greenberg, 2011). Survey respondents indicated that employers allowed for flexible work schedules and allowed for the student to miss work meetings to attend class (Cohen & Greenberg, 2011). While

both studies provide insight into employer support one is relevant to a specific country (Saar et al., 2014) and the other to one specific institution (Cohen & Greenberg, 2011). In addition, neither addressed the perspectives of students in distance education master's programs.

Organizations may choose to offer educational benefits to their employees. There are educational benefits written into the U. S. tax code if employers decide to participate that provide incentives for funding education (Burns & Simon, 2017). A main tax code benefit is Section 127 which allows employees to receive tuition support from their employer tax free (Jones, 2010). Each year students using this benefit are allowed $5,250 which has been constant since 1986. In 2007, master's degree pursuers accounted for 36% of Section 127 recipients receiving on average, $3,701. Additional tax code benefits include Section 117 which allows employees to receive scholarships from the employer with the understanding that the scholarship does not fund education that the employer will materially benefit from, and Section 132 which has no annual limit and requires each course to be evaluated but is needed for the employee to maintain skills required for their job (Burns & Simon). However, due to the strict requirements of Sections 117 and 132, Section 127 is the most commonly used tax code educational benefit.

One common approach of organizations is to finance the employee's education through prepayment or reimbursement (EdAssist, 2012). According to the annual benefits survey by the Society for Human Resource Management (2018) of over 3,000 members, 49% of organizations offer graduate educational assistance. Research by EdAssist into their client base of over one million eligible employees reveals that slightly more than 5%

are utilizing educational assistance. Tuition reimbursement has shown to be worth the return on investment as research by Flaherty (2007) found that employees who participated in the reimbursement program are 50% less likely to leave within five years. Additionally, the Lumina Foundation has partnered with two large organizations to review their tuition reimbursement/benefits programs (Lumina, 2016a; 2016b). Lumina's work with Cigna found 129% return on investment from being 8% more likely to retain, 7.5% more likely to transfer, and 10% more likely to promote participants of the employee reimbursement program (2016a). Similarly, Lumina's work with Discover found 144% return on investment based on 0.5% more likely to retain, 9% more likely to transfer, 21% more likely to promote, and almost a half of a day decrease in days absent (2016b).

Research Variables

In order to understand whether employer support is associated with first-year retention for distance education master's degree students, a review of the variables that predict first-year retention is crucial. The literature has identified variables that fall into logical categories including: demographics (Barry & Mathies, 2011; CGS, 2013; Cohen, 2012; Ke & Kwak, 2013; Rovai, 2001), student background (Bean & Metzner, 1985; Cohen, 2012; Dupin-Bryant, 2014; Girves & Wemmerus; 1988; Rovai, 2003; Tinto, 1975), external (Andrade & Matias, 2017; Bean & Metzner, 1985; Cohen, 2012; Cohen & Greenberg, 2011; Eller, B.F.V.D de Araujo, & de Araujo, 2016; Gururaj, Heilig, & Somers, 2010; O'Connor & Cordova, 2010; Prince, Burns, & Manolis, 2014; Sallee, 2015; Strayhorn, 2010), institutional (Aversa & MacCall, 2013; Cohen, 2012; Elliott &

Healy, 2001; Lawson, Leach, & Burrows, 2012; Milman et al., 2015; Schreiner & Nelson, 2013; Weerasinghe, Lalitha, & Fernando, 2017), integration/socialization (Bocchi, Eastman, & Swift, 2004; Cohen, 2012; Cole, Shelley, & Swartz, 2014; Hammond & Shoemaker, 2014; Hardre & Pan, 2017; Holzweiss, Fuller, & Henderson, 2014; Joyner et al., 2016; Schroder et al., 2014; Spady, 1971; Tinto, 1975), and intent (Bunn, 2004; Cohen, 2012; Fedynich, Bradley, & Bradley, 2015; Fincham, 2017; Holzweiss, Fuller, & Henderson, 2014).

Demographics

Age. Almost 50% of students enrolled in master's programs are 30 years of age or older (NPSAS, 2012), however when considering the modality of education differences are found. Of the students who enroll in distance education master's degrees 45% are 35 years of age or older compared to only 8% of students in campus-based master's degrees (Clinefelter & Aslanian, 2017; CGS, 2013). Research by the CGS (2013) studying campus-based master's programs found that those who are 35 years or older have higher attrition rates and take longer to complete their degree. Research on campus-based master's students by Cohen (2012) showed that the older a student is the less likely they are to complete their degree in general whereas Barry and Mathies (2011) found that the older the student is the less likely they are to complete their degree in 2 years. Cohen's findings indicate that younger students involved in activities outside the classroom are more likely to persist if they have high levels of self-efficacy.

Gender. A much higher percentage of women enroll in distance education master's programs (Magada & Aslanian, 2018), 68%, compared to students enrolled in

campus-based programs (CGS, 2013), 34%. While no retention or attrition data based on gender is available for master's students in distance education programs, campus-based data shows a higher percentage of men (19%) than women (15%) leave their program within a year of having started (CGS, 2013). Case study research on one classroom of graduate level education students by Rovai (2001) found that communication patterns differ between men and women in distance education courses. The female voice in online discussion posts was found to have a more supportive and positive tone which is thought to be related to sense of community which is related to persistence.

Ethnicity. A higher percentage of ethnic minorities enroll in master's level distance education programs (40%) than campus-based programs (17%) (CGS, 2013; Magada & Aslanian, 2018). The 2013 CGS study examined attrition rates within 1-year based on race/ethnicity for campus-based master's student sample. Students of Asian/Pacific Islander ethnicity had the lowest 1-year attrition rate at 16% followed by White at 17%, Hispanic/Latino at 19%, and Black/African American at 24% (CGS, 2013). While no research is available for distance education master's programs, Ke and Kwak (2013) found that minority students in distance education programs were less confident and comfortable taking courses, which impacts the student's sense of community which is known to be related to persistence.

Student Background

Previous degree GPA. Previous degree GPA has been shown to be a strong predictor of performance in studies with undergraduate students and is included in Bean and Metzner's model (1985). While previous degree GPA was not considered for

Cohen's (2012) model it was considered for Girves and Wemmerus (1988) model. However, due to too much missing information for this variable in the Girves and Wemmerus study it was removed from analysis. Despite differences between students who enroll in distance education and campus-based master's programs, this variable is relevant to include.

Parental education. Parental education is a common variable for undergraduate models, including Tinto (1975, 1993) as well as Bean and Metzner (1985), as it gives insight into first generation students. This variable has not been included in master's level theoretical models using students from campus-based programs (Cohen, 2012; Girves & Wemmerus, 1988). While Girves and Wemmerus did not seem to consider the variable, it was removed from the research by Cohen because it did not load at a high enough level when conducting a factor analysis to reduce variables. Due to the differences between students who enroll in distance education and campus-based master's programs, this variable is relevant to include.

Previous distance education experience. While the high school performance related variables are appropriate for Bean and Metzner's model (1985), this previous distance education experience variable touches on the same concept of skill development. In Rovai's (2003) model of online distance education, computer related student skills are accounted for. In addition, research by Dupin-Bryant (2004) identified previous online course completion as a significant predictor of online course completion for both undergraduate and master's students.

External Factors

Live with partner. Bean and Metzner (1985) identified support from spouse as a part of outside encouragement. Cohen (2012) used marital status as a variable but excluded it from final models. Institutions do not collect data about the sexual orientations of their students as a matter of privacy. Therefore, identifying whether a student lives with a partner provides the best insight into potential support.

Children in home. Much research has noted the conflict between balancing family and work with school (Sallee, 2015). The work-family-school conflict is most apparent when the student is trying to also care for children living in the home (Andrade & Matias, 2017; Eller, B.F.V.D de Araujo, & de Araujo, 2016). With a limited number of hours in a day, having to care for children takes away time that could be spent studying which could impact academic performance (Neyt, Omey, Verhaest, & Baert, 2017). Caring for children in the home may impact the amount and the quality of sleep one gets, both of which are related to academic performance (Chiang, Arendt, Zheng, & Hanisch, 2014; Ridner, Newton, Staten, Crawford, & Hall, 2016).

Employment. Over 32% of master's students work between 30-40 hours per week and 12% work between 40-50 hours per week while only 25% do not work at all (NCES, 2012). The ability to balance work with school is noted as one of the major challenges master's students face (Cohen & Greenberg, 2011; O'Connor & Cordova, 2010; Prince, Burns, & Manolis, 2014).

Financial. Student ability to pay for school is related to their likelihood to complete their degree (Strayhorn, 2010). When students have the financial means to pay

through federal financial aid, assistantships, loans, or personal savings they are more likely to continue (Gururaj, Heilig, & Somers, 2010). Tuition reimbursement is an option to ensure students have financial resources necessary to complete, but the research in this area has focused on the impact for the employer rather than the student (Lumina Foundation, 2016a; 2016b).

Ongoing adult care. While much has been written about balancing work and family with school, it is mostly in the context of children being the family balance (Andrade & Matias, 2017; Sallee, 2015). Considering that 45% of students in distance education master's programs are 35 years of age or older they may also have the responsibility of caring for elderly parents and relatives, spouses with health issues, or adult children with disabilities.

Institutional Factors

Overall satisfaction. Student overall satisfaction has been written about extensively regarding undergraduate students and has been shown to be a variable that contributes to predicting persistence (Schreiner & Nelson, 2013). Other research suggested it is more important to understand the predictors of satisfaction for institutional continuous improvement (Elliott & Healy, 2001; Lawson, Leach, & Burrows, 2012; Weerasinghe, Lalitha, & Fernando, 2017). However, student satisfaction with the departmental learning environment was included in Cohen's (2012) master's student persistence model and although the variable was not found to be statistically significant it did contribute to the overall model.

Satisfaction with support services. The research available for distance education master's students indicates that while support services like the library, academic advising, registrar, admissions, and financial aid are important, the levels of satisfaction vary (Milman, et al., 2015). Best practices in design characteristics for online master's programs include ensuring access to student support services particularly noting financial aid, library, and registration (Aversa & MacCall, 2013).

Integration/Socialization

Satisfaction with instructors. In distance education learning the faculty member is the face of the institution which influences student satisfaction (Holzweiss, Fuller, & Henderson, 2014). Hardre & Pan (2017) surveyed master's students in distance education programs to understand what contributed most to their ability to progress and three of the five top themes were related to satisfaction with faculty.

Connectedness to students. Research and theory about undergraduate students have identified interaction/socialization with other students as being key to persistence (Spady, 1971; Tinto, 1975). Research on master's level students in distance education programs has also found that there is a desire to be connected with other students (Cole, Shelley, & Swartz, 2014). Research by Schroeder et al. (2016) found that although students did want to be connected to other students, the level of connectivity desired was low compared to the desired connectivity levels with faculty. In the master's student persistence model by Cohen (2012) examining campus-based students, peer interaction was included, yet had no direct predictive impact.

Connectedness to faculty. Integration/socialization tends to be harder to achieve for students enrolled in master's level distance education programs, requiring extra effort on the part of faculty (Hammond & Shoemaker, 2014). While research by Schroder et al. (2016) identify that students desire high levels of connection to faculty and advisors, other researchers identified specific ways to ensure connectedness. Bocchi, Eastman, and Swift (2004) identified that faculty feedback and structured interaction is needed for successful courses. Joyner et al. (2014) identified connections outside the classroom via email, phone, or video technology; within course methods such as discussion postings and announcements; as well as quality and timely feedback on submitted assignments as ways students feel connected with faculty.

Intent to Graduate

Self-efficacy. Much of the qualitative literature that identifies the perceptions of master's level students finds that self-discipline, personal responsibility, self-motivation, pride, and determination are often mentioned as the reasons for being successful in the program (Bunn, 2004; Fedynich, Bradley, & Bradley, 2015; Fincham, 2017; Holzweiss, Fuller, & Henderson, 2014). Cohen's model of master's student persistence included a factor called intent to persist that is used as a measure of self-efficacy (2012). This variable was found to be statistically significant and had the strongest direct effect on persistence in the model.

Summary

The goal of this research was to determine the relationship between employer support and 1-year degree progression of master's students in distance education

programs at a for-profit university. A review of literature was conducted to identify what is known about master's level retention and completion rates. Theoretical models of student persistence were examined before investigating what is known about master's level student retention and completion. The literature review was narrowed to examine research studies that accounted for student employment effects and then identified and justified the variables to be used in the study.

The foundational theoretical models of student retention such as Tinto (1975, 1993) and Spady (1971), are primarily focused and developed for undergraduate students enrolled in traditional campus-based programs. Bean and Metzner (1985) developed a model that while aimed at undergraduate students focuses specifically on the nontraditional undergraduate students who are older, a commuter, or enrolled part-time. This model emphasizes how the role of the external environmental variables of finances, work, outside encouragement, opportunity to transfer, and family responsibilities, is the most influential aspect of persistence (Bean & Metzner, 1985). Using Tinto and Bean and Metzner as a foundation, Rovai (2003) developed a model of persistence for online distance education students. New additions accounting for the aspects of online education include computer and information literacy, computer-based interaction, service accessibility, clarity of program policies and procedures, and matching student learning style to teaching style.

Models of master's level persistence were identified, including Girves and Wemmerus (1988) empirical model of master's student degree progress. Many of the characteristics of the undergraduate models are included such as integration, student

characteristics, and finances (Girves & Wemmerus, 1988). While focused on campus-based master's programs, the model's addition of involvement in the program through participation in projects outside the classroom, contributed significantly (Girves & Wemmerus, 1988). Most recently Cohen (2012) developed a master's student persistence model that used Bean and Metzner's nontraditional student model as the foundation. Cohen attempted to determine if the Bean and Metzner (1985) model would be appropriate for campus-based master's students and ended up with similar findings around the importance of intent to persist.

The literature available about master's level student progression is limited and when narrowing down further to examine distance education students the data is scarcer. Research into master's degree programs at five campus-based institutions by the CGS (2013) found attrition rates of 10% within six months and 17% within 1-year of starting the program. Research at the University of Georgia found that about 88% of students were still retained within 2 years of starting their campus-based program but did not have 1-year retention data available (Barry & Mathies, 2011). CGS research showed that older a student is, the more likely they are to leave the institution before completing their degree with 28% of students 35 years and older leaving within 1-year of starting their program. Little is known about retention for distance education master's programs, but students enrolled in distance education programs are likely to be older, employed, female, and non-white (Clinefelter & Aslanian, 2017).

The literature revealed common findings about the support and characteristics that lead to student success for master's students which include student self-efficacy, social

support, institutional support, and relevancy of the program to the student's future profession (Budash & Shaw, 2017; Fedynich, Bradley, & Bradley, 2015; Fincham, 2017; Hardre & Pan, 2017; Holzweiss, Joyner, Fuller, Henderson, & Yang, 2014; Milman, et al., 2015; Stevenson, 2013; Yang, Baldwin, & Snelson, 2017). The research focused specifically on distance education master's students studies by Fincham (2017), Fedynich, Bradley, and Bradly (2015), and Budash and Shaw (2017) all conducted qualitative research to understand the perceptions of master's students identified the importance of self-discipline, time management, and organization because of the isolation that comes with the modality (Budash & Shaw, 2017; Fedynich, Bradley, & Bradly, 2015; Fincham, 2017).

While no research was available on master's level distance education programs that accounted for employment, some research has been published that examines students in campus-based master's programs who are also working. The common thread among the literature was that of time management and self-motivation due to the isolated learning environment (Andrade & Matias, 2017; Eller, B.F.V.D de Araujo, & de Araujo, 2016; O'Connor & Cordova, 2010; Sallee, 2015; Tumin & Faizuddin, 2017). Other studies examined the balance between work, family, and school finding that partner/family support as a crucial element to success (Andrade & Matias, 2010; Eller, B.F.V.D de Araujo, & de Araujo, 2016; O'Connor & Cordova, 2010; Sallee, 2015). Quantitative studies established that working while studying is negatively related to the amount of time spent studying, scores on exams, and likelihood to graduate (Beffy, Fougere, & Maurel, 2010; Beerkens, Magi, & Lill, 2011; Neyt, Omey, Verhaest, & Baert,

2017). However, some researchers have noted benefits of working while studying. Students who work are generally more prepared for how to behave in work settings, have greater opportunity for advancement, and develop relationships and support from coworkers (Prince, Burns, & Manolis, 2014; Thune & Storen, 2015).

Little research is available on the types of educational support employers are providing their employers. What is known is that support is provided financially, by allowing flexible schedules, by providing opportunities for advancement, and by motivation (Cohen & Greenberg, 2011; Saar, Voorman, & Lang, 2014). Financial support is the most common form of support in the United States with sections written into the U.S. tax code that employers may take advantage of allowing them to provide non-taxed educational funding (Jones, 2010). Over 1/3 of the recipients receiving support from the most common tax code section, 127, are those enrolled in master's programs (Jones, 2010). Research by the Lumina Foundation provides evidence of return on investment for providing tuition reimbursement benefits to employees. Their research with Cigna (2016a) and Discover Financial Services (2016b) showed tremendous impacts in terms of reducing turnover, increasing transfers within the company, reducing absenteeism, and increase the likelihood of promotions.

It is known that the employer benefits from employees who use tuition reimbursement. What has not been studied are the employer provided support for master's level students in distance education programs. In addition, the research has not shown how employer support impacts the employee likelihood to progress in their master's degree program.

This study accounted for the variables the research literature has identified as contributing to persistence and completion and added variables around employer support. In doing so the study determined whether employer support variables contribute to predicting employee degree progression above and beyond what is known to predict student progression. The next chapter describes the methodological approach to answer the research question.

Chapter 3: Methodology

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate. In support of the purpose, the following research question was formed:

> To what extent can distance education master's degree student's first-year retention be predicted by employer support after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate?

Archival data were used to answer the research question. This chapter describes the research design and rationale, population, variables, data analysis strategy, threats to validity, as well as the procedures taken to ensure ethical treatment of participants and data.

Research Design and Rationale

Archival survey data from an online institution was requested to examine the relationship between employer support and employee degree progression. The use of archival data has advantages relevant to this study. As the data were already collected, I was not required to design an instrument or an intervention and administer them to potential participants (Brewer, 2011). According to Brewer (2011), archival data also reduce costs that may have otherwise been associated with conducting a survey such as incentives, online survey tool subscription, or obtaining a list of potential participants.

Furthermore, he suggested that archival data analysis has the potential to be less biased than other primary data collection methods since self-reporting may be more subjective than third-party reporting. An advantage of using archival data was the ability to reproduce the study as covariates change over time. Using archival data allows for a researcher to collect data unobtrusively and protects research participants (Brewer, 2011). The archival data used with this study were taken from a survey that is administered annually at the institution.

Many student and employment related variables are in the survey dataset while other variables were requested, such as the start date and enrollment data, so that the dependent variable could be created. To create the dependent variable, a yes/no indicator signifying whether the student was enrolled in the term 1-year from their start term was used. The independent variable for this study was whether the student received employer support. To control for the possible alternative explanations of the research findings many covariates are included, as summarized in Table 2.

Table 2

List of Research Study Covariates

Demographics	Student Background	External Factors	Institutional Factors	Integration/ Socialization	Intent to Graduate
Age	Undergraduate GPA	Lives w/partner	Overall satisfaction	Satisfaction w/instructors	Self-efficacy
Gender	Parental education	Children in home	Satisfaction w/services	Connected to students	Intent to graduate
Ethnicity	Distance ed experience	Finances	Field of study	Connected to faculty	
		Ongoing adult care			

To address the research question, quasi-experimental nonequivalent groups posttest only design was used for this quantitative study. The key traits of a quasi-experimental design are the lack of random assignment and the inability to define a pretest (Shadish, Cook, & Campbell, 2001). This was a fitting design because it was not possible, using the anticipated archival data, to assign students to a control or treatment group, nor define a pretest. The first nonequivalent group was considered the treatment group and were those students who report that they receive employer support, with employer support being the treatment. The second nonequivalent group was the control group and was made up of students who report that they did not receive employer support. The outcome measure or the posttest for the research question was whether the student enrolled in courses 1-year from starting their program. While the goal of the student is to graduate, identifying the factors for persistence will allow institutions to implement initiatives that assist students in achieving their goal.

This research design aligns with the approach of both Cohen (2012) and Girves and Wemmerus (1988). In these studies, the researchers used survey data in conjunction with archived institutional data to develop their models of master's student persistence. Saar, Voormann, and Lang (2014) used archival survey data as well as qualitative methods in their research while many others conducted surveys (Cohen & Greenberg, 2011; Prince, Burns, & Manolis, 2014; Thune & Storen, 2015; Wyland, Winkel, Lester, & Hanson-Rasmussen, 2015). The CGS (2013) pilot study on master's level completion and attrition used archival data from five institutions and then conducted surveys to gain

further insights into reasons for progression and attrition. Both survey data and archival data are needed to advance knowledge in this area of the discipline.

Population

The archival data used in this study came from a convenience sample of one survey administered to all master's students enrolled during the Fall 2017 term at a distance education for-profit university. The total population was approximately 25,000 master's students who enrolled in at least one course, past the add/drop period, during the Fall 2017 quarter and semester terms. The population of students were enrolled in programs within the business and management, communications, criminal justice, education, information technology, nursing, psychology and counseling, public health and health sciences, public policy and administration, and social work and human services fields of study, and completing coursework that is 100% online. Master's students who did not start their degree during the Fall 2017, were not employed full-time, who had transfer credits of any amount, or were enrolled in master's programs that move at an alternative pace (accelerated, for example) were removed from the study.

Sampling and Sampling Procedures

The archival data set used was from the institution's annual student satisfaction survey. This survey was administered during the Fall 2017 term to all students enrolled at the institution which totaled 48,429 degree seeking students across all degree levels. The 2017 survey was distributed October 25, 2017. Students were sent an e-mail inviting them to take the web-based survey and multiple reminder e-mails were delivered before the survey closed on November 27, 2017. E-mail messaging made it very clear that the

respondent's data would be kept confidential and that the results would be reported in aggregate. Additionally, the messaging clearly indicated that the survey was entirely voluntary and that there would be no penalties for not participating. The survey achieved a 26% response rate accounting for 12,589 responses.

The focus of this study, however, was on master's level students. The survey was sent to 25,688 master's students with 6,295 completing the survey for a response rate of 24.5%. Master's students who did not start their degree during the Fall 2017, were not employed full-time, who had transfer credits of any amount, or were enrolled in programs that move at an alternative pace were removed from the study. Using the Fall 2017 cohort ensured that all master's students were given a chance to complete the survey. The removal of students with transfer credits avoided alternative explanations for why a student did, or did not, progress in their program. Similarly, the programs that move at an alternative pace follow a unique progression to a degree that differ from all other programs offered, justifying their removal.

Despite the lack of a reliable way to determine the exact sample size needed for logistic regression analysis, an estimate was provided (Babyak, 2004). To achieve a 95% confidence level and a confidence interval of 5, sample size calculators suggest that with a population of 24,000 a sample of 378 is needed (Creative Research Systems, 2012). Other research suggested that having a sample size that is a minimum of 10-15 times the number of predictor variables is appropriate (Peduzzi, Concato, Kemper, Holford, & Feinstein, 1996). Peduzzi et al. (1996) found that having fewer than 10 observations per predictor results in bias. Following this logic, a minimum sample size of approximately

190 – 285 would suffice to conduct a logistic regression analysis. The sample size for this analysis was 512.

Use of Archival Data

The archival dataset used in this study was from the institution's annual student satisfaction survey. In order to obtain the dataset, a request was made to the Office of Institutional Research and Assessment. Upon approval from the Institutional Review Board (IRB) a request was also made to the university institutional approver. Due to my role in the institution, where the institutional approver is part of the team I manage, the institutional approver form was sent to the chief academic officer. Upon institutional approval, the chief academic officer made a request to the Office of Institutional Research and Assessment to provide the dataset.

Instrumentation and Operationalization of Constructs

Among the items within the institutional student satisfaction survey are two sets of questions from publicly available sources aimed at measuring online student connectedness and self-efficacy. The first set of questions come from Bolliger and Inan (2012) who have developed an Online Student Connectedness Survey (OSCS) made up of 25 items. The second set of questions are from the International Personality Item Pool (n.d.) which included 10 items to develop a measure of self-efficacy. Including these two measures helps to ensure that as many explanatory variables as possible are accounted for in the study. A description of these instruments and the reliability and validity follow.

Bolliger and Inan (2012) used research literature to identify appropriate items for the OSCS to measure online student connectedness. They established construct validity

by using a four-person expert panel to review the items and conducted a validation study that resulted in a reliability of α=.98 (Bolliger & Inan, 2012). An additional administration of the survey was conducted, and a factor analysis was run to establish construct validity which resulted in a four-factor solution that explained almost 84% of the variance and showed reliability at α=.97 (Bolliger & Inan, 2012). The four subscales consisted of six items to measure community, eight items to measure comfort, six items to measure facilitation, and five items to measure interaction and collaboration (Bolliger & Inan, 2012). Zimmerman (2015) studied the OSCS in effort to establish the validity and reliability of the survey. In Zimmerman's study, 11% of the sample were graduate students and 67% of the variance could be accounted for with the four-factor solution. Additional analysis resulted in the removal of nine items, yet the four factors held (Zimmerman, 2015). Zimmerman concluded that the OSCS is a reliable, valid, and different from other surveys measuring similar constructs.

Ten items, based on the constructs similar to the Neuroticism, Extraversion, Openness-Personality Inventory-Revisited (NEO-PI-R), were used to measure self-efficacy and included in the institution's student satisfaction survey (International Personality Item Pool, n.d.a). The items were constructed to measure self-efficacy and are similar to the NEO items about competence within the conscientiousness facet (International Personality Item Pool, n.d.a). The Cronbach α measure of reliability for these items is .78 (International Personality Item Pool, n.d.b).

Variables for Insights

The archival dataset had many questions to help understand the types of employer support master's students in a distance education program receive. The primary employment related question asked the respondents to select all that apply from a list to indicate what supports they receive from their employer:

- Provides tuition reimbursement or other financial support.
- Allows hours during the work week to spend on coursework (in place of regular work hours).
- Allows alternate work schedule (while maintaining regular number of hours worked).
- Provides regular motivation/encouragement.
- Work projects can be used to complete school assignments.
- Gives opportunity to complete field experience at my place of employment.
- Other, please explain.
- None.

Based on the response to this question, other questions were asked.

If a respondent indicated that they receive financial support from their employer, they were asked three to four additional questions. The first question asked about the proportion of tuition reimbursement or other financial support paid by the employer each term and respondents made a selection between 1% and 100%. The second question was a yes/no/not sure response asking if there are any conditions requiring them to stay with the employer for a certain amount of time for using the financial support. If the response

is yes, then they were asked to indicate the length of time they are required to remain with the employer by selecting one of the following options:

- Less than 1-year (from START of program).
- Less than 1-year (after COMPLETION of program).
- 1-year (from START of program).
- 1-year (from COMPLETION of program).
- More than 1-year but less than 2 years (from START of program).
- More than 1-year but less than 2 years (after COMPLETION of program).
- 2 years (from START of program).
- 2 years (after COMPLETION of program).
- More than 2 years (from START of program).
- More than 2 years (after COMPLETION of program).

Finally, all respondents who indicate receiving financial support from their employer were asked if the support is more than $5,250 per year (yes/no/not sure) as this is the amount employers can offer their employees tax free on an annual basis.

If a respondent indicated that their employer allows them to use hours during the work week to spend on coursework, they were asked how many hours they are given (1 hour thru 40 hours). When a respondent selected that they are allowed alternative work schedules they were asked to indicate the flexibility offered by their employer with the following response options:

- Able to begin work earlier in the day and end earlier.
- Able to begin work later in the day and end later.

- Able to switch and work four 10-hour days.
- Able to spread hours into the weekend.
- Other-please explain.

For respondents who indicated that their employer provides them with regular motivation/encouragement they were asked what type they receive from the following options:

- General chat ("good luck", "how is program going?", "Can I help?", etc.).
- Discussing progress.
- Celebrating milestones.
- Encouragement.
- Words of advice.
- Other-please explain.

Finally, all respondents who indicated they receive some sort of support from their employer were asked which support is most important in supporting progress toward graduation.

Variables for Research Question

The variables measured by the survey were chosen because the literature has identified them as having a relationship with student progression. In addition to the data needed to determine inclusion, the variables were organized into the categories of demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

Inclusion decision. The variables that determined inclusion in the study were student cohort, program of enrollment, number of transfer credits, and employment status. Program of enrollment data were nominal and reviewed to remove students enrolled in the programs that move at an alternative pace as these programs are intended to be completed much faster than standard programs. The number of transfer credits variable was a continuous measure and any student with one or more transfer credits was removed from the study. These two variables were delivered as part of the dataset but were obtained from the institution's student information system. Employment status data were obtained from the surveys where the response options included:

- Full-time.
- Part-time.
- Self-employed.
- Retired.
- Not currently employed and not seeking employment.
- Seeking employment but not currently employed.
- Prefer not to say.

Only students who responded that they were employed full-time or self-employed were included in the study.

Demographics. Age, gender, and ethnicity were the three demographic variables included in the study. Each of these variables were delivered as part of the dataset but were obtained from the institution's student information system. Age was treated as a numeric continuous variable. Gender was coded as a dichotomous nominal variable with

0=female and 1=male. Two ethnicity variables were created using 0=White as the baseline to reference Black or African American, and minority (not White or Black or African American). The minority category included the following ethnic groups: American Indian or Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, Unknown, and the students who identify as Two or More Races.

Student background. Student background variables consist of previous online course experience, parent's education, and previous degree GPA. The previous online course experience survey item asked whether the student had earned college credit by taking online courses. It was coded so that 0=no online course credit earned, 1=online credit earned during campus-based program, and 2=online credit earned through 100% online program. Another survey question asked students about their parent's highest level of education earned. Previous degree GPA (bachelor's degree) was an interval variable delivered as part of the data set but obtained from the institution's student information system.

External factors. External factors for this study include finances, family responsibilities, and employment. There were four employment related variables that came from the surveys. The first was an interval variable that asked how many hours per week the student works. The second employment related variable asked whether the student was employed in their field of study (yes/no). The other is the primary independent variable asked students to indicate which supports they received from their employer for their master's degree studies. The students checked all that apply from the following list:

- Provides tuition reimbursement or other financial support.
- Allows hours during the work week to spend on coursework (in place of regular work hours).
- Allows alternate work schedule (while maintaining regular number of hours worked).
- Provides regular motivation/encouragement.
- Work projects can be used to complete school assignments.
- Gives opportunity to complete field experience at my place of employment.
- Other, please explain.
- None.

The last employment related question used the same response options but asked the student to indicate the employer support that was most important to them making progress toward graduation.

The finance related variables included in the study were from the survey data, one of which included annual household income. Students were asked to indicate which of the following income ranges their own annual household income falls into:

1. Under $25,000.
2. $25,000-$49,999.
3. $50,000-$74,999.
4. $75,000-$99,999.
5. $100,000-$124,999.
6. $125,000-$149,999.

7. $150,000 or more.

Additional finance related survey questions included whether (yes/no) the student had concerns about their ability to pay for their program, and their level of agreement (*strongly agree – strongly disagree*) that the financial investment of the degree was worth it.

Family responsibilities were also asked about in the survey to get a sense of the conflicts and supports students have with their master's degree studies. Students were asked (yes/no) if they live with a spouse or partner and whether they were responsible for ongoing care of an adult. Additional survey questions asked how many children under the age of six live with them and how many children between the ages of seven and 18 live with them (range from none to eight or more children).

Institutional factors. Institutional factors for this study included overall satisfaction with the university and satisfaction with support services, both were from questions asked in the survey. Overall satisfaction was asked on a 10-point scale with 0=*Very dissatisfied* and 10=*Very satisfied*. To obtain support service satisfaction ratings students were first asked to identify which services they had used in the past year from a list that included: Bursar's Office, Academic Advising, Financial Aid Office, Library Services, Student Support Team, Career Services, Registrar's Office, Writing Center, Disability Services, Military Services, Center for Research Quality, Field Experience, and the Academic Skills Center. Students who indicated they used one or more of these services were asked to rate the effectiveness (1=*Very ineffective*, 2=*Ineffective*, 3=*Neither effective nor ineffective*, 4=*Effective*, 5=*Very Effective*) of each.

Integration/Socialization. Integration/socialization factors for this study included satisfaction with instructors, comfort with distance education, sense of community, connectedness to students, and connectedness to faculty. Instructor satisfaction information came from two survey questions where one question asked the respondent to identify the statement that best describes their overall satisfaction with their professors from the following list:

- I am satisfied with NONE of my professors.
- I am satisfied with FEW of my professors.
- I am satisfied with SOME of my professors.
- I am satisfied with MOST of my professors.
- I am satisfied with ALL of my professors.

The second question asked respondents to rate their level of agreement with the statement that faculty care about their success using a scale from 1=*Strongly disagree* to 5=*Strongly agree*.

The remaining integration/socialization related factors were examined using the OSCS items that were included in the archival dataset. Previous research (Bolliger & Inan, 2012; Zimmerman, 2015) identified four factors within the questionnaire including: sense of online community, comfort with the online environment, connectedness with faculty, and connectedness with students. The OSCS survey items were analyzed to identify the specific factors to be used for this study.

Intent to graduate. Intent to graduate was measured with two specific survey items and a measure of self-efficacy. The archival dataset had two questions where the

respondent was asked to rate their agreement (from 1=*Strongly disagree* to 5=*Strongly agree*) that (a) if it is important to graduate from this University and (b) if it is important to graduate from any university. Additionally, the ten items from the International Personality Item Pool (IPIP) were used to create a scale for self-efficacy were included.

Data Analysis Plan

The Statistical Package for the Social Sciences (SPSS) version 24 was used to analyze the data. After receiving the data, it was reviewed for completeness. This was accomplished by reviewing individual cases and examining frequencies, measures of central tendency, and any potential outliers. Outliers that were due to incorrectly entered or measured data were dropped while other outliers were examined to determine the impact on analysis. In addition, one question asked students to indicate the support they receive from their employer and had an open-ended response option. Open-ended comments were reviewed and placed into the appropriate closed-ended response option. Descriptive statistics examining the demographic make-up and providing a basic understanding of the sample and employer support in general were conducted in order to best answer the research question below.

> To what extent can distance education master's degree student's first-year retention be predicted by employer support after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate?

H_0: Employer support cannot predict distance education master's degree student first-year retention after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

H_1: Employer support can predict distance education master's degree student first-year retention after controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate.

Analysis to examine the extent to which employer support predicts first-year retention for distance education master's students after controlling for other variables known to predict retention, was performed using binary logistic regression. Since the outcome variable, first-year retention, was nominal and only has two outcomes (retained versus not retained), binary logistic regression was the most appropriate statistic to answer the research question (Field, 2013; Nui, 2018). The first step prior to running any models was to continue the review for data completeness as it may be necessary to impute missing data. It was determined that the data were complete, and no imputation methods were required (Donders, van der Heijden, Stijnen, & Moons, 2006).

The next step prior to running the regression model was to identify and only use the variables that are relevant predictors, ensuring the model is correctly specified (Warner, 2013). The first way this was approached was to run an exploratory factor analysis for the OSCS questions to determine if the four-factor model holds for this specific sample and to identify the items to be included in the factors (Pett, Lackey, & Sullivan, 2003). After identifying the items that belong to each factor, the items were scaled to create one variable per factor. Factor analysis and scale creation was done for

the self-efficacy related questions from the IPIP as well. For the OSCS questionnaire, orthogonal varimax rotation was used and variables with factor scores above .40 were retained and examined for factor inclusion (Pett, Lackey, & Sullivan, 2003). No rotation was used with the IPIP analysis as the items were expected to load on one factor (Field, 2013).

Point biserial correlation coefficients were calculated for all variables against the outcome variable (first-year retention). Any variable that was not significantly correlated with first-year retention was considered for removal. Since the literature has identified main areas that impact student progression, correlations for the variables within each of these areas (student background, external factors, institutional factors, integration/socialization, and intent to graduate) were run against each other. When correlation coefficients between the two predictor variables within the same area were strong, the correlation coefficients with the outcome variable was examined, and the variable with a stronger correlation to the outcome variable was kept. This approach reduced the number of predictor variables while keeping the theoretical foundation intact. Lastly, a binary logistic regression model was run to examine predictors of first-year retention.

Threats to Validity

Internal, external, and statistical conclusion validity were considered in the design of this study. This section begins by looking into threats to internal validity which aims to ensure that the relationships between variables are correct (Shadish, Cook, & Campbell, 2001). Examination of external validity, which is a way to determine the populations,

settings, and treatments the study's findings can be generalized, follows (Shadish, Cook, & Campbell, 2001). The last threat to validity examined was statistical conclusion validity which is concerned with ensuring that the stated relationship between variables exists and the strength to which they exist (Shadish, Cook, & Campbell, 2001).

Internal Validity

Threats to internal validity were limited due to the use of archival data for this study. The threat of attrition, where respondents withdraw from a study so that the outcome variable cannot be measured was not a concern as the predictor variables were collected in the archival data. The impact of history and maturation was also alleviated by using archival data as changes over time are not measured. However, a student may obtain support from an employer after their first term and this information would not be known but could impact the outcome variable. Although the use of archival data limited the ways in which the threat of self-selection could be minimized it still must be considered. In this study the entire population of master's students who started during the fall 2017 term were given the opportunity to participate and there were ample sample sizes of those who did and did not receive employer support.

External Validity

Threats to external validity were important to recognize in this study. Due to the narrow population of interest of master's students in distance education programs, it was not possible to generalize outside of the group. In addition, the study was conducted at one institutional setting and cannot be generalized beyond the individual institution. The

data used in this study was a snapshot in time and needs to be replicated at another time to ensure findings would be generalizable to the future.

Statistical Conclusion Validity

Statistical conclusion validity was used to ensure the stated statistical conclusions are correct and to examine their strength (Shadish, Cook, & Campbell, 2001). This research used null hypothesis significance testing to ensure there are no type I or type II errors. Social science research commonly uses a probability value of .05, indicating that in less than five times out of 100 would the outcome occur by chance, to ensure the results are not in error (Shadish, Cook, & Campbell, 2001). Additionally, the primary statistical test used for this research (logistic regression) has few assumptions required, such as the outcome variable is not required to be normally distributed and that a linear relation between the outcome and predictor variables is not required, which were met (Warner, 2013). The sample used for the study was large enough to meet the standards of the statistical tests.

Ethical Procedures

The data needed for this research was not requested until the university Institutional Review Board application had been approved (Approval Number 04-19-19-0188484). The use of archival data in this study helped to alleviate ethical concerns as direct contact with participants was non-existent. The data provided was anonymous. Information was reported in summary and not on an individual basis which helped to keep the responses confidential. In addition, the data were maintained electronically on an external drive and will be destroyed five years after completion of this study.

In addition to the university's approval to conduct the study, an institutional approval was also required. The staff member who oversaw the institutional approval process reported directly to me. To ensure there was no sense of power or persuasion used to obtain institutional approval to receive the data, the institutional approval form was sent to the institution's chief academic officer. The chief academic officer acted as the institution's institutional approver and approved the request for the data. In addition, the use of archival data and conservative elimination of cases alleviated concerns related to the potential organizational pressure to present positive results.

Summary

In this study the predictive relationship of employer support on distance education master's students' first-year retention at a for profit university after accounting for the covariates known to impact degree progression was investigated. To complete the study archival data was used containing the outcome variable (yes/no) that indicates if a student was enrolled in courses a year after they began their degree. Due to the dichotomous nominal nature of the outcome variable, logistic regression was used to answer the research question. Threats to validity and ethical procedures were outlined and appropriate actions identified to ensure a valid and ethical study.

The next chapter focuses on the results of the analyses conducted to answer the research question. This includes a description of the data collection process, the sample, and descriptive demographics of the survey participants. The results of the statistical analyses including hypothesis testing are reported.

Chapter 4: Results

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate. In this chapter, the data collection and the results of the analyses conducted are described. Descriptive and demographic characteristics of the sample are reported in addition to results from the specific statistical analyses. This includes reporting the data reduction techniques as well as the logistic regression analysis. This chapter concludes with a summary of the results.

Data Collection

The data for this study was collected by the institution during the Fall of 2017 between October 25, 2017 and November 27, 2017. The institution collected the data through the annual student satisfaction survey which was sent to all degree seeking students who were enrolled during the fall term (n = 48,429) and achieved a 26% response rate. Of the 25,688 master's students taking the survey 6,295 completed it for a response rate of 24.5%. This archival dataset was requested from the University on April 9, 2019 and was received May 7, 2019. Consistent with the research question, the dataset included only master's level students who began their studies in the Fall 2017, did not have any transfer credits, were employed full-time, and enrolled in programs offered at a normal pace (as opposed to accelerated pace). This resulted in a file containing 512 students that met the criteria. Since one of the inclusion criteria was to be employed full-

time, and this information is only available in the survey data, it was not possible to calculate a response rate specific to students who met the inclusion criteria. Over half (53%) of the sample was enrolled in a nursing master's degree. An additional 18% were enrolled in counseling or psychology programs, 16% in social work-related programs, 7% in public health & public administration, 4% in education, and 3% in business related programs.

Within this sample, 57.4% indicated they received some sort of employer support while 42.6% did not. A student who indicated that they receive any of the following supports was counted as having received employer support: (a) tuition reimbursement or other financial support, (b) hours during the work week to spend on coursework – in place of regular work hours, (c) alternate work schedule – while maintaining regular number of hours worked, (d) regular motivation/encouragement, (e) work projects that can be used to complete school assignments, or (f) opportunity to complete field experience at place of employment.

Demographics

Three demographic areas were examined including age, gender, and ethnicity. The average age of the sample was 41-years and ranged from 20 years of age to 66. Only 17% of the sample were 30 years of age or younger. The average age for students who were receiving employer support was 40 years while those who were not receiving employer support was 42 years. An independent samples *t*-test was run to determine if there are statistically significant age differences between those who are and are not receiving employer support. A statistically significant age difference was found between

those employees who received employer support (M = 40.3, SD = .553) and those who did not receive support (M = 42.3, SD = .666) conditions; t (508) = 2.312, p = .021.

A majority of the sample was female (88.8%). To confirm there were no statistically significant differences by gender between students receiving employer support and students not receiving employer support, a chi-square analysis was conducted. The results showed that the groups were not significantly different, χ^2 (1, N = 507) = .647, $p > .05$.

Black or African American students made up 45% of the sample while White students accounted for 40%, Unknown ethnicity 5.7%, and Asian 5.5%. No other ethnicity accounted for more than 3% of the sample. A chi-square analysis was conducted to determine whether there were differences between students received employer support and those who did not. While the chi-square results were not statistically significant, χ^2 (7, N = 512) = 11.424, $p > .05$, 82% of Asian students indicated receiving employer support compared to 18% who did not.

Background Characteristics

The three background characteristics examined were first generation status, undergraduate GPA, and distance education experience. Of the total sample, the majority of students are first generation (77%), 10% are not first generation, and 13% did not provide enough information to determine their status. Chi-square test results showed no statistically significant differences on this measure based upon whether a student received employer support or not, χ^2 (1, N = 444) = 1.306, $p > .05$.

The average undergraduate GPA for the total group was 3.17 and ranged from 2.06 to 4.00. The mean undergraduate GPA for students receiving employer support was 3.16 (*SD* = .47) and for those who did not receive employer support it was 3.18 (*SD* = .45). An independent samples *t*-test verified there were no statistically significant differences in undergraduate GPA between the two groups, t (470) = .417, p = .677.

The majority of students have some experience with online courses with 28% having earned college credit through a program that was 100% online, and 38% having taken some online courses during their campus-based program. Finally, 30% of the students have only earned college credit by taking on campus courses (4% did not respond). A chi-square analysis was run to determine whether there are differences between students who received employer support and students who did not. The results found no significant differences in prior online experience between the two groups, χ^2 (2, N = 493) = .309, p > .05.

External Demands

The four specific external factors examined were household income, if students live with a partner, if students have children in the home, and whether students provide ongoing care for an adult. While 19% of the overall sample did not respond or preferred not to say what their annual household income was, 24% indicated it was between $50,000 and $74,999 and 26% indicated earning under $50,000. A chi-square test did not find significant differences based on whether the student received employer support or not, χ^2 (6, N = 415) = 5.336, p > .05.

The majority of the sample lived with a partner or spouse (58%). For students who received employer support, 64% live with a partner or spouse. However, statistically significant differences were not found between the group of students who did and did not receive employer support, χ^2 (1, N = 477) = 1.633, p > .05.

The majority of the sample (56%) had at least one child under the age of 18 living in the home. Fifteen percent of the sample had three or more children. Significant differences were found when looking at whether students who received employer support or not had children, χ^2 (1, N = 490) = 3.825, p = .05. Of the students who received employer support, 63% had children living in the home compared to 54% who did not receive employer support.

In addition, 19.7% of the sample indicated they are responsible for ongoing care of an adult (i.e. adult child with disabilities, elderly parent(s)/relative, spouse with severe health issues, etc.). A lower percentage of students who received employer support also had responsibility for ongoing care of an adult (16%), compared to 25% of students who did not receive employer support. The chi-square results found significant differences between students who did and did not receive employer support for this item, χ^2 (1, N = 482) = 5.171, p = .023.

Results

Results of the analyses conducted that examined employer support data and identified whether employer support contributes to explaining student retention at 1-year are shared. In order to identify the variables to include in the logistic regression analysis, several data reduction steps were required. First, factor analyses were conducted on the

two questionnaires within the survey, the OSCS and the IPIP self-efficacy questions. Second, associations between all items against the outcome variable of retention at 1-year were examined. Third, relationships between variables within the predictor areas (student background, external factors, institutional factors, integration/socialization, and intent to graduate) were reviewed to avoid multicollinearity. Finally, based on the results of these three steps, the specific variables were identified and included in the logistic regression model.

Employer Support Data

Fifty-seven percent of the sample indicated receiving some sort of employer support. Of those receiving support the most common type of support received was tuition reimbursement or other financial support (55.8%) followed by regular motivation/encouragement (48.3%). Students were also asked to indicate which type of support they felt is most important in supporting their progress toward graduation. Table 3 provides additional detail on the types of employer support students receive and what they view as most important. Students appear to consider an alternative/flexible work schedule more valuable than regular motivation, although financial support is the most desirable support an employer can provide.

Table 3

Actual Support from Employers and Most Important Support

Type of Employer Support	Percent Receiving Support (*n*=294)	Rated Most Important (*n*=294)
Tuition reimbursement or other financial support	55.8%	40.1%
Regular motivation/encouragement	48.3%	14.3%
Alternate work schedule (while maintaining regular number of hours worked)	29.9%	16.0%
Opportunity to complete field experience at place of employment	24.8%	13.9%
Hours during work week to spend on coursework (in place of regular work hours)	18.4%	10.9%
Work projects can be used to complete school assignments	8.5%	1.4%

NOTE: Numbers in the Percent Receiving Support column will not add to 100% as respondents could select multiple types of support they were receiving. A small percentage (3.4%) did not respond to the question asking to rate the most important type of support.

Retention at 1-year for students who received tuition reimbursement or other financial support was 68.9% which is significantly higher than the 59.2% retention rate for students who did not receive this support (χ^2 (1, N = 512) = 4.472, p = .034). No other significant first-year retention differences were found based on the type of employer support received (Table 4). Of the 294 students indicating they received some sort of employer support 53.1% received one type of support, 24.1% received two types, and 22.7% received 3 or more types of support.

Table 4

Percentage of Students Retained at One Year by Type of Employer Support

Type of Employer Support	Support Received	
	Yes	No
Tuition reimbursement or other financial support	68.9%	59.2%
Regular motivation/encouragement	65.5%	61.1%
Alternate work schedule (while maintaining regular number of hours worked)	62.5%	62.3%
Opportunity to complete field experience at place of employment	58.9%	62.9%
Hours during work week to spend on coursework (in place of regular work hours)	61.1%	62.4%
Work projects can be used to complete school assignments	68.0%	62.0%

The majority of students in this sample were currently employed in their field of study (68.9%) while 7.8% preferred not to say or did not answer the question, leaving

23.2% not employed in their field of study. Of the students employed in their field of study, 61.5% indicated they receive some sort of employer support compared to 48.7% of those not employed in their field of study. This was a statistically significant difference (χ^2 (1, N = 472) = 5.934, Cramer's V = .112, p = .015).

Students who indicated they received tuition reimbursement or other financial support were asked a couple of follow-up questions about the details and conditions upon which they receive this support. The first question asked students to indicate the percentage paid by their employer each term and found that for the 145 students receiving financial support, 44.9% are getting 10% or less paid for each term, 20% get 11% - 25% paid, 17.2% get 26% - 50% paid, 7.6% get 51% - 75% paid, and 10.3% get 76% - 100% paid by their employer. Students receiving financial support were asked whether there were conditions that required them to stay with their current employer for using the financial benefits. The majority of students (61.9%) indicated that there were conditions for using the financial support. The most common conditions were to remain employed with the organization for 1-year after completing the degree (21.7%) and to remain employed with the organization for 2 years after completing the degree (22.9%). Table 5 contains more detail on this item. Last, when asked if their employer provides them with more than $5,250 per year toward paying for school, 18.7% of the 134 respondents indicated yes.

Table 5

Length of Time to Remain Employed for using Financial Support (n=83)

Length of Time	Percent
Less than 1-year from START of program	10.8%
1-year from START of program	12.0%
More than 1-year but less than 2 years from START of program	2.4%
2 years from START of program	6.0%
More than 2 years from START of program	4.8%
Less than 1-year after COMPLETION of program	6.0%
1-year from COMPLETION of program	21.7%
More than 1-year but less than 2 years after COMPLETION of program	2.4%
2 years after COMPLETION of program	22.9%
More than 2 years after COMPLETION of program	10.8%

Students who indicated they were given time during their regular work hours to use for their studies were asked how many hours (including hours for field experience) they were given. Of the 46 students responding to this question, the most common number of hours provided was 10 hours per week (23.9%). More than one-third of students (34.8%) received less than 10 hours per week while 32.6% of students were allowed between 11 hours and 20 hours per week. Students who were allowed to create an alternate work schedule (*n*=88) did so by starting the work day earlier and finishing earlier (48.9%), starting the work day later and finishing later (44.3%), spreading work hours into the weekend (44.3%), and able to switch to work 4–10 hour days (23.9%). For the 142 students who indicated they received some type of regular motivation/encouragement, 76.8% received general encouragement while 71.8% received general chats about school. More than half (54.8%) of students received words of advice while 45.8% were able to discuss progress. A much smaller percentage of students (25.4%) indicated the motivation/encouragement they received included celebrating milestones.

Factor Analysis

A principal axis factor analysis was conducted on the 25 items of the OSCS using oblique rotation (direct oblimin). The four factors accounted for 73.7% of the total variance explained. Items 1, 2, and 8 were removed as they were the only items in the OSCS Comfort factor that did not load at .7 or higher (Pett, Lackey, & Sullivan, 2003). In addition, the remaining items are specific to comfort communicating in an online setting. Items 11 and 9 were removed from the OSCS Community factor as their loadings were quite lower (.24 less) than the others in the factor and the only items that did not load at .7 or higher (Pett, Lackey, & Sullivan, 2003). Items 15, 16, and 20 were removed from the OSCS Facilitation factor as they did not load at .7 or higher. In addition, the remaining items focused on the direct impact of the instructor versus promoting or integrating interactions. Item 21 was the last item removed as it was part of the OSCS Interaction and Collaboration factor. This item did not load at .5 and loaded at a level quite lower than the other items within the factor (Pett, Lackey, & Sullivan, 2003). Table 6 shows the pattern matrix for the initial and revised factor loadings. The remaining 16 items accounted for 80.1% of the total variance explained. None of the 16 items were correlated above $\alpha = .83$ suggesting that multicollinearity is not a concern. The Kaiser-Meyer-Olkin measure of sampling adequacy was .899 with a value for each individual item was over .82 which is well above the acceptable limit of .5 (Field, 2013). Reliability for each factor was tested using Cronbach's Alpha and found that each of the four factors was at $\alpha = .897$ or higher. Each of the four factors were scaled to create one variable for each factor to be considered for inclusion in the logistic regression model.

Table 6

OSCS Initial and Revised Factors

Scale	Item (Number)	Initial Reliabilities	Initial Pattern Matrix 1	2	3	4	Revised Reliabilities	Revised Pattern Matrix 1	2	3	4
Comfort		.927					.904				
	I have no difficulties with expressing my thoughts in my online courses. (7)		.841					.837			
	I feel comfortable expressing my opinions and feelings in online courses. (4)		.829					.848			
	I feel comfortable introducing myself in online courses. (5)		.780					.701			
	If I need to, I will ask for help from my classmates. (6)		.725					.800			
	I feel comfortable asking other students in online courses for help. (3)		.712					.756			
	I feel comfortable in the online learning environment provided by my program. (1)		.670					-			
	I feel my instructors have created a safe online environment in which I can freely express myself. (2)		.642					-			
	I can effectively communicate in online courses. (8)		.641					-			
Community		.937					.941				
	I feel emotionally attached to other students in my online courses. (10)			-.908					-.836		
	My peers have gotten to know me quite well in my online courses. (13)			-.884					-.861		
	I spend a lot of time with my online course peers. (12)			-.859					-.886		
	I feel that students in my online courses depend on me. (14)			-.848					-.859		
	I can easily make acquaintances in my online courses. (11)			-.602					-		
	I have gotten to know some of the faculty members and classmates well. (9)			-.597					-		
Facilitation		.901					.899				
	I receive frequent feedback from my online instructors. (18)				.857					.931	
	My instructors participate in online discussions. (19)				.788					.786	
	My online instructors are responsive to my questions. (17)				.779					.801	
	In my online courses, instructors promote interaction between learners. (20)				.689					-	
	Instructors promote collaboration between students in my online courses. (15)				.514					-	
	Instructors integrate collaboration tools (e.g., chat rooms, wikis, and group areas) into online course activities. (16)				.452					-	
Interaction and Collaboration		.896					.897				
	I discuss my ideas with other students in my online courses. (24)					.921					.918
	I share information with other students in my online courses. (23)					.902					.900
	I collaborate with other students in my online courses. (25)					.748					.729
	I relate my work to others' work in my online courses. (22)					.721					.706
	I work with others in my online courses. (21)					.471					-

A principal axis factor analysis was conducted on the 10 items making up the IPIP self-efficacy survey. No rotation was applied as the set of 10 items was expected to load on one factor (Field, 2013). During this analysis it was found that 60 respondents (12% of the sample with IPIP data) did not adapt to the change in the last four self-efficacy items that are negatively worded. These respondents were not included in the factor analysis that resulted in a one factor solution accounting for 54.9% of the total variance explained (Schmitt & Stults, 1985). The factor analysis determined a two-factor solution, but all the items in the second factor also overlapped with the first factor and loaded higher on the first factor. The reliability for the one factor solution was $\alpha = .898$. The 10 items in the solution were scaled to create one variable to be considered for inclusion in the logistic regression model.

Associations with First-Year Retention

The next step toward data reduction for building the logistic regression model included examining the associations with each of the potential predictor variables and first-year retention. When examining the association between a continuous variable and the dichotomous nominal outcome variable, a point biserial correlation was used (Field, 2013). When both variables for examination were nominal, the chi-square analysis was used with Cramer's *V* to understand the effect size (Warner, 2013).

None of the demographic variables (age, gender, or ethnicity) were found to have a statistically significant relationship with first-year retention. A point biserial correlation found almost no correlation strength with age, $r_{pb} = -.006$, $p = .890$. The examination of gender found that 71.9% of males and 60.9% of females were retained at 1-year, but this

was not statistically significant, χ^2 (2, N = 512) = 3.299, Cramer's V = .080, p = .192. Due to the small sample size for some of the ethnic backgrounds the ethnicity variable was recoded into White, Black or African American, and Other. Retention at 1-year was 66.8% for White students, 56.7% for Black or African American, and 67.1% for Other, and was not statistically significant, χ^2 (2, N = 512) = 5.611, Cramer's V = .105, p = .060. Although there were no significant associations between these demographic variables and retention at 1-year, they are often included in retention models (Bean & Metzner, 1985; Cohen, 2012; Tinto, 1975). Additionally, the demographic background of this sample appears to be unique compared to national surveys (Clinefelter & Aslanian, 2017) with over 50% of ethnic minority background (non-White) and a higher percentage of older students (68.4% over the age of 35). These variables are considered for inclusion in the logistic regression model.

The three student background variables of undergraduate GPA, first generation student status, and experience with distance education were all found to have statistically significant associations with retention at 1-year. A point biserial correlation found a significant, but weak, relationship with undergraduate GPA in that as undergraduate GPA increases the likelihood to be retained at 1-year increases, r_{pb} = .104, p = .024. A significant association was found where students who are first generation had a 1-year retention rate of 61.2% and non-first generation students were retained at 76.9%, χ^2 (1, N = 444) = 4.857, Cramer's V = .133, p = .028. Students were asked about their previous experience with online courses and 69.5% of those who had not earned any college credit by taking online courses were retained at 1-year. Students who completed a campus-

based program and took some online courses were retained at 55.1% while those who earned college credit through a program that was completely online were retained at 66.4%. This association was found to be statistically significant, χ^2 (2, N = 512) = 8.728, Cramer's V = .133, p = .013. All three of these variables continue to be considered for inclusion in the logistic regression model.

None of the external factors were found to have a statistically significant association with retention at 1-year. Of the students who were living with a partner, 63.7% were retained at 1-year compared to 62.6% of students who were not, χ^2 (1, N = 477) = .058, Cramer's V = .011, p = .810. A point biserial correlation found that as the number of children one has increases the likelihood of being retained at 1-year decreases, however, it is a very small and non-significant relationship, r_{pb} = -.032, p = .483. Students who had a responsibility to provide ongoing care to an adult had a first-year retention rate of 57.9% while those without this responsibility retained at 64.3%, although this was not statistically significant, χ^2 (1, N = 482) = 1.361, Cramer's V = .053, p = .243. Since less than 20% of the sample identified as providing ongoing care to an adult and there is no relationship with retention, this variable was not considered for inclusion in the logistic regression model. A few items were analyzed to find one that could represent the financial aspect of pursuing a master's degree. One item asks students to indicate their annual household income (range) and was not found to be statistically significant (see Table 7), χ^2 (1, N = 415) = 7.949, Cramer's V = .138, p = .242. Students were also asked a yes/no question about whether or not they had concerns about their ability to pay for

school. A chi-square analysis was not found to be significant, however, student who indicated they were not concerned about their ability to pay were retained at 59.3% and those who were concerned retained at 63.3%, χ^2 (1, N = 422) = .698, Cramer's V = .041, p = .404. The last financial related item was about whether their investment in the degree was worth it, which a chi-square analysis found no significant associations, χ^2 (4, N = 498) = 5.009, Cramer's V = .100, p = .286. The sample of students may not have had enough time to accurately respond to the question about whether the financial investment was worth it since they would only have been in the program for a few weeks when they received the survey. This item was removed from consideration for the logistic regression model. The other two finance related items, household income and concerns about ability to pay, continued to be considered as student financial variables have shown to be important in theoretical retention models (Bean & Metzner, 1985; Girves & Wemmerus, 1988). The last external factor examined for an association with retention at 1-year was whether or not the student received employer support. While the results did not find a statistically significant association (χ^2 (1, N = 512) = 3.328, Cramer's V = .081, p = .068), those who did receive employer support had first-year retention rates of 65.6% compared to 57.6% of those not receiving employer support.

Table 7

First-Year Retention by Income Range

Income Range	Percent Retained at One Year
Under $25,000	54.5% (*n*=22)
$25,000 - $49,999	65.2% (*n*=112)
$50,000 - $74,999	66.1% (*n*=121)
$75,000 - $99,999	65.2% (*n*=92)
$100,000 - $124,999	63.4% (*n*=41)
$125,000 - $149,999	56.3% (*n*=16)
$150,000 or more	27.3% (*n*=11)

The three institutional factors of overall student satisfaction, field of study, and satisfaction with support services were all found to be significantly associated with first-year retention. Using a point biserial correlation, it was found that as satisfaction increases the likelihood to being retained at 1-year increases, $r_{pb} = .131$, $p = .003$. Students enrolled in the nursing field of study have 1-year retention rates of 68.1%, social work is at 62.2%, counseling and psychology at 50.0%, education at 52.6%, business at 57.1%, and public health and administration at 57.1%. The relationship between field of study and first-year retention was statistically significant, χ^2 (5, $N = 512$) = 11.170, Cramer's $V = .148$, $p = .048$. Satisfaction with specific institutional services was analyzed and can be seen in Table 8. Two services were found to have a significant relationship with first-year retention, the Library, χ^2 (4, $N = 418$) = 12.082, Cramer's $V = .170$, $p = .017$, and Registrar, χ^2 (3, $N = 148$) = 8.195, Cramer's $V = .235$, $p = .042$. Overall satisfaction and field of study was considered for inclusion in the logistic regression model. Effectiveness of the Library was also considered; however, the other

services/departments were not considered for inclusion in the model because too little data was available, and the sample sizes were too small.

Table 8

First-Year Retention by Student Ratings of Service/Department Effectiveness

Service/Department	Total N	% Retained at one year				
		Very Ineffective	Ineffective	Neither Ineffective nor Effective	Effective	Very Effective
Bursar	257	66.7% (*n*=6)	-	42.6% (*n*=13)	55.8% (*n*=129)	64.2% (*n*=109)
Academic Advising	375	57.1% (*n*=7)	53.3% (*n*=15)	59.5% (*n*=37)	59.8% (*n*=169)	66.0% (*n*=147)
Financial Aid	370	66.7% (*n*=9)	71.4% (*n*=7)	59.1% (*n*=22)	62.6% (*n*=187)	66.9% (*n*=145)
Library*	418	100% (*n*=5)	100% (*n*=6)	56.3% (*n*=16)	56.1% (*n*=196)	67.2% (*n*=195)
Student Support	199	50.0% (*n*=6)	60.0% (*n*=5)	61.5% (*n*=13)	55.1% (*n*=89)	69.8% (*n*=86)
Career Services	30	-	-	50.0% (*n*=4)	38.5% (*n*=13)	69.2% (*n*=13)
Registrar*	148	100% (*n*=3)	-	60.0% (*n*=5)	52.5% (*n*=80)	73.3% (*n*=60)
Writing Center	237	80.0% (*n*=5)	50.0% (*n*=2)	67.7% (*n*=9)	64.3% (*n*=112)	65.1% (*n*=109)
Textbook & Materials	176	100% (*n*=5)	50.0% (*n*=2)	67.7% (*n*=9)	53.7% (*n*=82)	47.7% (*n*=78)
Center for Research Quality	16	-	-	0.0% (*n*=1)	55.6% (*n*=9)	83.3% (*n*=6)
Field Experience	41	0.0% (*n*=2)	50.0% (*n*=2)	0.0% (*n*=1)	43.5% (*n*=23)	46.2% (*n*=13)
Academic Skills Center	118	100% (*n*=2)	0.0% (*n*=2)	60.0% (*n*=5)	58.3% (*n*=60)	69.4% (*n*=49)
Military Services	17	-	0.0% (*n*=1)	33.3% (*n*=3)	67.7% (*n*=6)	57.1% (*n*=7)

*Statistically significant association with first-year retention.

Of the integration/socialization items, none were found to have a significant association with first-year retention. Satisfaction with instructors examined two items, one of which asked about student overall satisfaction with instructors and the other whether they agree that faculty care about their success. First-year retention for students who indicated they were satisfied with none of their instructors was 66.7%, satisfied with few was 43.5%, with some was 61.4%, with most was 54.9%, and with all was 66.7%, χ^2 (4, N = 510) = 8.832, Cramer's V = .132, p = .065. Students who strongly disagreed, disagreed, neither disagreed nor agreed, and agreed that faculty care about their success had first-year retention rates between 56% and 60% while those who strongly agreed were at 67.3%, although not statistically significant, χ^2 (4, N = 511) = 3.849, Cramer's V

= .087, p = .427. Connectedness to students was measured by OSCS revised community scale (r_{pb} = .027, p = .546), revised interaction and collaboration scale (r_{pb} = .068, p = .131), and revised comfort scale (r_{pb} = -.010, p = .823) of which none were significantly associated with first-year retention. Connectedness to faculty was measured based on the OSCS revised facilitation scale and was not significantly associated with first-year retention, r_{pb} = .074, p = .096. However, previous research found that students desire faculty who are responsive and have a presence in the classroom (Baker, 2010; Hardre & Pan, 2017; Holzweiss, et al., 2014; Joyner, et al., 2014) which the OSCS revised facilitation scale most measures. Therefore, this scale was considered for inclusion in the logistic regression model. Also, since socialization has been featured in other theoretical models (Girves & Wemmerus, 1985; Tinto, 1975) and appears to have mixed findings for online students, some desire connectedness to students while some did not, the OSCS community scale was considered for the model (Schroeder, et al., 2016).

The IPIP self-efficacy scale was used as a measure of intent to graduate and found to have a significant association with first-year retention, r_{pb} = .157, p = .001. As scores on the self-efficacy scale increase, so do student chances of being retained after 1-year. Students were also asked how important it is that they graduate from the institution and the item was found to have a significant association with retention, χ^2 (4, N = 500) = 19.378, Cramer's V = .197, p = .001. Not found to be significantly associated with first-year retention is an item asking students how important it is to graduate from any institution, χ^2 (4, N = 481) = 4.197, Cramer's V = .093, p = .380. Because these two questions are so similar, and one is associated with retention while the other is not, the

item regarding graduating from any institution was removed from consideration to be included in the logistic regression model (see Table 9).

Table 9

First-Year Retention by Ratings of Importance of Graduating

Question	% Retained at one year				
	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly Agree
Importance of graduating from THIS institution	60.0% (*n*=10)	40.0% (*n*=5)	32.3% (*n*=31)	55.0% (*n*=100)	67.5% (*n*=354)
Importance of graduating from ANY institution	61.9% (*n*=21)	67.6% (*n*=37)	69.6% (*n*=79)	63.2% (*n*=114)	57.8% (*n*=230)

Relationships Within Predictor Areas

The last step toward data reduction was to identify relationships between variables within each predictor area to determine if some should be removed from consideration of inclusion in the logistic regression model. Keeping variables that are highly correlated with one another negatively impact the logistic regression model. When determining which variable to keep, the relationship with the outcome variable (first-year retention) and relevance to the theoretical models were considered.

The demographic variables of age, gender, and ethnicity were examined to see if they are related. A point biserial correlation between age and ethnicity was found to be statistically significant, yet very weak (r_{pb} = -.097, p = .029). Additional analyses found no significant relationship between age and gender (r_{pb} = .056, p = .206) nor between gender and ethnicity (χ^2 (2, N = 507) = .338, Cramer's V = .026, p = .844). All three demographic variables were included in the final logistic regression model because they

are commonly included in theoretical retention models and the significant relationship found was very weak (Bean & Metzner, 1985; Tinto, 1975).

The background variables of undergraduate GPA, first-generation status, and prior distance education experience were examined to see if they are related. No significant relationship was found between first generation status and prior experience with distance education (χ^2 (2, N = 437) = 2.492, Cramer's V = .076, p = .288). Point biserial correlations found no significant relationship between undergraduate GPA and first-generation status (r_{pb} = -.083, p = .096), but did find a statistically significant relationship between undergraduate GPA and prior distance education experience (r_{pb} = .229, p = .000). The significant correlation is weak, and all three variables were found to be associated with first-year retention so they were kept for the logistic regression model.

The external variables of living with a partner, children living in the home, household income, ability to pay, and receiving employer support were examined to see if they are related. A significant relationship was found between living with a partner and having children living in the home (r_{pb} = .219, p = .000). Additionally, a significant relationship was found between living with a partner and household income (r_{pb} = .377, p = .000). No other significant relationships were found between these variables except for a very weak relationship between receiving employer support and children living in the house (r_{pb} = .110, p = .015). While none of the three variables (lives with a partner, has children living in the home, or household income) had significant relationships with first-year retention, yet living with a partner is not a variable often seen in retention models

(Bean & Metzner, 1985; Cohen, 2012; Tinto, 1975)while the other two are. Therefore, living with a partner was not included in the logistic regression model.

The institutional variables of overall satisfaction with the institution, effectiveness of the library, and field of study were examined to see if they are related. No significant relationships were found with either overall satisfaction or effectiveness of the library with program of study. However, a moderate correlation was found between overall satisfaction with the institution and effectiveness of the library (r_{pb} = .366, p = .000). This finding is not necessarily surprising as overall satisfaction with the institution should cover perceptions of the library as well as other services and functions of the school. Due to the medium strength correlation and overlap of the variables, effectiveness of the library was not included in the logistic regression model.

The integration/socialization variables of overall satisfaction with instructors, perception that faculty care, OSCS community scale, and the OSCS facilitation scale were examined to see if they are related. The results found that every item had a statistically significant association with all other items. The purpose of this predictor area was to align with the theoretical models of student retention which highly emphasize the importance of students being integrated into the institution through relationships and socialization with faculty and other students (Bean & Metzner, 1985; Tinto, 1975). There are two items that were used in the logistic regression model that seem to best achieve the ideals of this predictor area, the OSCS facilitation scale and the OSCS community scale. These two items were found to correlate with medium strength across the other items in this predictor area. A point biserial correlation found the OSCS facilitation scale to

significantly correlate with overall instructor satisfaction (r_{pb} = .531, p = .000) and perception that faculty care about student success (r_{pb} = .430, p = .000). The OSCS facilitation scale also significantly correlated with the OSCS comfort scale (r = .501, p = .000) and the OSCS interaction scale (r = .409, p = .000). The OSCS community scale also significantly correlated with the OSCS interaction scale (r = .528, p = .000) and the OSCS comfort scale (r = .460, p = .000). Despite being statistically significant, the correlation between the OSCS facilitation scale and the OSCS community scale was weak (r = .293, p = .000).

The intent to graduate variables of self-efficacy and importance of graduating from the institution were examined to see if they are related. A point biserial correlation between the two items was found to be statistically significant, yet very weak (r_{pb} = .139, p = .005). Both items were found to have statistically significant association with the outcome variable (first-year retention), and since the correlation between the two items is so weak, both items were included in the logistic regression model.

Logistic Regression Model

The variables that remain for inclusion in the logistic regression model can be seen in Table 10. The nominal variables where the values could not determine whether they are equally spaced and do not have a relevant hierarchy were recoded into dummy variables. In particular two ethnicity variables were created, one for Black or African American and one for other minorities (non-white and non-black). An additional dummy variable was created for field of study (nursing). Therefore, 17 variables were included in the logistic regression model.

Table 10

Variable Labels and Description

Category	Variable Name	Description
Outcome Variable	Retention	Coded 1 if enrolled in fall 2018, 0 if not
Independent Variable	Employer Support	Coded 1 if received any employer support, 0 if not
Covariates:		
Demographics	Age	Age (rounded to whole number) at start of program
	Gender	Coded 1 if male, 0 if female
	Black	Coded 1 if Black, 0 otherwise
	Minority	Coded 1 if Asian/Hispanic/American Indian/Native Hawaiian/Two or more races/unknown, 0 otherwise
Background	UG GPA	Undergraduate grade point average (range 2.06 – 4.00)
	First Gen	Coded 1 if neither parent completed a bachelor's degree, 0 otherwise
	Prior Online Experience	Coded 0 if no online courses, 1 if some online courses, 2 if completed online program
External	Children in Home	Total number of children under age 18 living in home
	Household Income	Coded 0 if under $25,000, 1 if $25,000 - $49,999, 2 if $50,000 - $74,999, 3 if $75,000 - $99,999, 4 if $100,000 - $124,999, 5 if $125,000 - $149,999, 6 if $150,000 or more
	Concern re: ability to Pay	Coded 1 if Yes, 0 if No
Institutional	Overall Satisfaction	Coded 0 if Very Unsatisfied, thru 10 if Very Satisfied
	Nursing Field of Study	Coded 1 if Nursing, 0 otherwise
Integration/Socialization	OSCS Facilitation	OSCS Facilitation scale (range 3-15)
	OSCS Community	OSCS Community scale (range 4-20)
Intent to Graduate	Self-efficacy	IPIP self-efficacy scale (range 10-50)
	Importance to Graduate	Coded 1 if Strongly disagree, 2 if Disagree, 3 if Neither agree nor disagree, 4 if Agree, and 5 if Strongly agree

The results of the logistic regression analysis found that the model predicted the odds of being retained at 1-year significantly better than a null model without any predictors (χ^2 (17, N = 226) = 43.659, p = .000). The Cox & Snell (.176) and Nagelkerke R Square (.240) measures provide an estimate of the effect size, which suggests the model accounts for between 17.6% and 24% of the variance. Additionally, the Hosmer and Lemeshow test suggested a good model fit in that the predicted group membership is not significantly different from the actual (χ^2 (8, N = 226) = 5.401, p = .714). The

difference between the predicted and actual outcomes of the model are called residuals which represent the amount of error in the model and is a way to check for outliers (Field, 2013). Cook's distance is a measure of the effect a case has on the model where values greater than one are a concern (Field, 2013). No individual cases in the sample were found to have a Cook's distance greater than one. Leverage was also checked and while nine items were found to be two times greater than the average leverage, no items were found to be three times greater than the average leverage suggesting no item is having undue influence on the model (Field, 2013).

Table 11 shows the individual variables within the model and the four that were found to be statistically significant including employer support, household income, overall satisfaction, and importance of graduating. The odds ratio for employer support (exp(B)=1.939) indicates that students who have employer support are 1.9 times more likely to be retained 1-year from the start of their program. Similarly, as overall student satisfaction increases, they are 1.3 times more likely to be retained while when the importance of graduating from this institution increases students are 1.5 times more likely to be retained 1-year form the start of their program. Household income had a different relationship with first-year retention. The model suggests that as household income increases, students are .64 times less likely to be retained 1-year from starting.

Table 11

Model Statistics for Individual Variables

Variable Name	B	S.E.	Wald	p	exp(B)	95% C.I. for exp(B)	
						Lower	Upper
Employer Support*	.662	.337	3.856	.050	1.939	1.001	3.755
Age	.004	.017	.047	.829	1.004	.972	1.037
Gender	1.021	.540	3.581	.058	2.777	.964	8.001
Black	-.622	.365	2.906	.088	.537	.262	1.098
Minority	.251	.497	.256	.613	1.286	.486	3.405
UG GPA	.513	.371	1.914	.167	1.671	.807	3.456
First Gen	-.810	.556	2.124	.145	.445	.150	1.322
Prior Online Experience	-.157	.219	.513	.474	.855	.557	1.313
Children in Home	-.137	.135	1.028	.311	.872	.670	1.136
Household Income*	-.452	.137	10.806	.001	.637	.486	.833
Concern re: ability to Pay	.230	.324	.502	.479	1.258	.666	2.375
Overall Satisfaction*	.225	.115	3.830	.050	1.253	1.000	1.570
Nursing Field of Study	.627	.389	2.602	.107	1.872	.874	4.008
OSCS Facilitation	-.025	.081	.097	.755	.975	.833	1.142
OSCS Community	-.030	.043	.463	.496	.971	.892	1.057
Self-efficacy	.052	.035	2.206	.137	1.053	.983	1.128
Importance to Graduate*	.401	.178	5.046	.025	1.493	1.052	2.118
Constant	-5.225	2.190	5.690	.017	.005		

Summary

Results of the data analysis found that 57.4% of master's level students who began their distance education studies in the fall of 2017 received some sort of employer support whether through (a) tuition reimbursement or other financial support, (b) hours during the work week to spend on coursework – in place of regular work hours, (c) alternate work schedule – while maintaining regular number of hours worked, (d) regular motivation/encouragement, (e) work projects that can be used to complete school assignments, or (f) opportunity to complete field experience at place of employment. Students who were employed in their field of study were more likely to receive employer support than those who were not. Of those receiving employer support the most common type of support was tuition reimbursement or other financial support which 55.8% indicated receiving. Of those receiving financial support 65% were receiving 25% or less

of the cost per term covered by their employer. Further, over 60% of students receiving financial support were required to stay with the organization for a certain amount of time after completing the degree.

Through the data reduction steps that included factor analysis of the OSCS and the IPIP self-efficacy questions, review of associations between all items against retention at 1-year, and review of associations between variables within the predictor areas a 17-item logistic regression model was created. The model was found to be significant and account for between 17.6% and 24% of the variance explaining retention at 1-year. Four items were found to be statistically significant predictors of first-year retention including employer support, which answers the research question about the extent to which employer support predicts retention while controlling for all the other variables known to have an impact. Students who receive employer support are 1.9 times more likely to be retained at 1-year than those who do not receive employer support.

The results of the study are interpreted in the next chapter. Limitations of the study and recommendations for future research are described. Additionally, the implications of the study related to positive social change were considered.

Chapter 5: Discussion

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate. The study focused on students who are employed full-time, enrolled in master's degree programs at a for-profit online university, who started in Fall 2017, and did not have any transfer credits.

This study is important since employment while studying is typically considered a barrier to degree progress and completion as students who work are often less likely to persist and when they do persist, they do so at a slower pace (CGS, 2013). Students enrolled in distance education programs are typically older and trying to balance family, work, and school (Clinefelter & Aslanian, 2017; Wyland, Lester, Mone, & Winkel, 2013). With the understanding that students are going to have to balance work with school now and in the future, I sought to determine if the employer can provide sufficient supports so students can progress toward their academic and personal goals. Employer support for master's students has not been studied widely since the literature has focused mostly on how students are balancing school with their other responsibilities (O'Connor & Cordova, 2010; Sallee, 2015).

I found that 57.4% of the sample (n = 512) received some sort of employer support in the form of tuition reimbursement or other financial support, regular motivation/encouragement, alternative work schedule, ability to complete field

experience at the place of employment, using work hours to study, or using work projects to complete school assignments. Tuition reimbursement/financial support was found to be the most frequent type of employer support received by 55.8% of students. Students who were employed in their field of study were significantly more likely to receive employer support than those who are not (63% versus 50%).

A logistic regression model that significantly predicts first-year retention was created. When controlling for the variables known to predict retention (demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate), four variables revealed statistically significant predictors of first-year retention. These variables were receiving employer support, household income, overall satisfaction with the institution, and importance of graduating from the institution. Therefore, receiving employer support was found to significantly predict first-year retention when holding age, gender, ethnicity, undergraduate GPA, first generation status, prior online experience, children in the home, household income, ability to pay, overall satisfaction, field of study, faculty facilitation, connectedness with students, self-efficacy, and importance to graduate constant.

The odds ratio in logistic regression is the best way to interpret the effect of a variable in the equation (Field, 2013). Of the four significant predictors in the model, employer support had the largest odds ratio (1.939) meaning that students who receive employer support are almost two times more likely to be retained at 1-year than students who do not receive employer support. Additionally, tuition reimbursement or other

financial support by employers appeared to be the most important type of employer support as it was the only type found to be significantly associated with retention.

Overall satisfaction with the university was another significant predictor with an odds ratio of 1.25. For every one unit increase in overall satisfaction, a student is 1.25 times as likely to still be enrolled at 1-year. Similarly, for each unit increase in ratings of the importance of graduating from the university goes up, students are 1.49 times as likely of being retained at 1-year. The last significant predictor was household income which has a different relationship with first-year retention. For each unit increase in household income, students are .637 times as likely to be retained at 1-year meaning those with higher household incomes are less likely to be retained at 1-year.

Interpretation of the Findings

The purpose of this section is to describe the ways in which the research findings relate to the relationship between employer support and first-year retention of students who are employed full-time, enrolled in master's degree programs at a for-profit online university, who started in Fall 2017, and did not have any transfer credits. The section focuses on using employer support as a predictor of master's student retention followed by highlights of the descriptive findings around employer support. Next, the section examines findings from each of the predictor areas (demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate) in relation to the literature. The section concludes with interpreting the findings from the theoretical context.

Employer Support as Predictor of Retention

Previous researchers of undergraduate student retention have found employment to negatively influence academic progress while these studies commonly use the number of hours worked per week as the main employment related variable in the models (Bean & Metzner, 1985; Neyt et al., 2017). In this study, students who are employed full-time, enrolled in master's degree programs at a for-profit online university, who started in Fall 2017, and did not have any transfer credits were the focus. The logistic regression model in this study considered any form of employer support (tuition reimbursement or other financial support, regular motivation/encouragement, alternative work schedule, ability to complete field experience at the place of employment, using work hours to study, or using work projects to complete school assignments) as having received employer support and was found to significantly predict first-year retention. Students who receive employer support are 1.9 times more likely to be enrolled in their program at 1-year compared to those who do not have this support even when accounting for variables known to predict retention (demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate).

Additional analyses of the employer support variable show that only tuition reimbursement or other financial support is significantly associated with first-year retention. Of students receiving employer support, reimbursement/financial support was the most frequent type of support provided and was rated as the most important type of support an employer could provide. Employees who receive tuition reimbursement are less likely to leave the organization and more likely to be promoted (Flaherty, 2007;

Lumina, 2016a; 2016b). Providing tuition support to employees of an organization is written into the U. S. tax code in section 127 and allows organizations to provide $5,250 to each employee tax free (Jones, 2010).

Describing Employer Support

The results of this study contribute to the knowledge base regarding distance education master's students and employer support at a for-profit university. New insights about this student population regarding the percentage who receive employer support, the type of employer support received, and the details related to receiving each of the different types of support are identified. The only other research reporting information about types of employer support comes from an Estonian study that includes campus-based students in both undergraduate and master's programs (Saar, Voorman, & Lang, 2014). The findings of that study and this study are quite different regarding financial support. In this study 55.8% of students receiving support receive financial support compared to 7% in the Estonian study. Other types of support were more aligned as 29.9% are allowed a flexible schedule compared to 19% in the Estonian study, and 48.3% receive motivation/encouragement compared to 32% in the Estonian study.

This study adds additional insights into the requirements and stipulations employers have for employees who use employer support. For the students who receive tuition reimbursement/financial support 61.9% indicated having conditions that must be met in order to use the benefit which most commonly were to stay with the organization for 1 (21.7%) or 2 years (22.9%) after completion of their degree. For the 46 students who were given time during their regular work hours to spend on their studies 34.8%

were provided 10 hours per week or less while 32.6% were given between 11 and 20 hours per week. For the 88 students who were allowed an alternative work schedule over 44% each could start early and end early, start late and end late, or spread work hours into the weekend. A much smaller percentage (23.9%) were allowed to move to a 4-day, 10 hours per day work week.

Predictor Areas

Demographics. Students in this sample were older as 68.4% are age 35 or older compared to 45% from a national sample of graduate students (Clinefelter & Aslanian, 2017). The CGS (2013) study showed that campus-based master's students age 35 or older had a 72% first-year retention rate. CGS found that those age 35 or older had a 61.7% first-year retention rate which was slightly lower than the overall sample of 62.3%. However, it is important to keep in mind the CGS sample was taken from five institutions with stricter admissions criteria versus the open access institution used for this research. In terms of receiving employer support, there were no differences based on student age, nor was there a relationship between age and first-year retention. Student age was also not a significant predictor in the logistic regression model. The non-significant relationship with retention differed from the findings of Cohen's (2012) study of campus-based master's students where younger students were more likely to persist. The majority of students in Cohen's study, however, were under 30 years old where the average age of students in this study was 41.

According to Clinefelter and Aslanian (2017), 68% of graduate students enrolled in distance education are female. This study had a much higher percentage of female

students at 88%. No significant differences were found between gender and receiving employer support or gender and first-year retention. In addition, gender was not found to be a significant predictor of first-year retention in the logistic regression model. The CGS (2012) study found that 81% of men and 85% of women remain enrolled at 1-year while this study found that 71.9% of men and 60.9% of women were enrolled at 1-year. However, because of the small number of men in this sample, the findings should be compared with other data cautiously.

National data for distance education graduate students found that 40% report to be non-white ethnic minorities (Clinefelter & Aslanian, 2017). This study had a higher percentage of ethnic minority students at 60%. Black or African American students had a 76% first-year retention rate according to the CGS (2012) national sample and a 56.7% retention rate in this study. No differences were found between ethnicity and receiving employer support, nor were differences found between ethnicity and first-year retention. Ethnicity did not show as being a significant predictor of first-year retention in the logistic regression model, although Black or African American had a significance level of .088 and an exp(B) = .537. This suggests that students of Black or African American ethnicity may have lower odds of being retained at 1-year compared to other ethnicities after all other variables are controlled for.

Overall, the demographic make-up of students in this study appears to be different from what has been reported nationally. There is no set of comparison data available as the Clinefelter and Aslanian (2017) data for distance education students combines masters and doctoral students into one graduate number. The CGS (2013) study is

comprised of five campus-based institutions making it of limited use when comparing to distance education students.

Background characteristics. A large percentage of students (77%) in the sample did not have a parent who completed a bachelor's degree. This metric is often associated with traditional aged undergraduate students and considered important because first generation students do not have a parent who can guide them through the college experience and are expected to be less likely to succeed. This variable was examined in Cohen's (2012) study but not included in the final model examining campus-based master's students. In this study there was no relationship between first generation status and receiving employer support. There was a significant relationship with first-year retention in that 61.2% of first generation and 76.9% of non-first-generation students were retained. However, first generation status was not found to be a significant predictor of first-year retention in the logistic regression model when accounting for all the other covariates.

High school GPA has shown to be a strong predictor of retention at the undergraduate level (Bean & Metzner, 1985). This study used undergraduate GPA to determine if a similar relationship exists at the master's level. The variable was not considered in Cohen's model (2012) and was lacking data in another master's student model (Girves & Wemmerus, 1988). The admissions criteria for many master's level programs requires a 3.0 undergraduate GPA which may make for minimal variance for use in predicting retention. At the institution in which this study took place, the minimum undergraduate GPA required for admissions was 2.5. No differences in undergraduate

GPA were found based on whether a student received employer support. While there was a significant relationship between undergraduate GPA and first-year retention it was quite weak (r_{pb} = .104), and when controlling for the other variables in the logistic regression model that predict retention it was not statistically significant.

No differences in receiving employer support were found based on student's previous online experience. Dupin-Bryant (2004) found that previous online experience is associated with online course completion while this study found a significant relationship with first-year retention. Somewhat surprisingly, students with no online experience were retained at 69.5% versus 55.1% for students who took some online courses within a campus-based program, and 66.4% for those who previously completed a program fully online. However, when controlling for other variables in the logistic regression model, previous online experience was not a significant predictor of first-year retention.

External factors. Much of the research regarding having children in the home and academic progress focuses on the conflict in balancing the two (Andrade & Matias, 2017; Eller et al., 2016; Sallee, 2015). While 63% of students with children and 54% of students without received employer support, no significant relationship was found with first-year retention. Additionally, when controlling for other variables, having children in the home was not a significant predictor of first-year retention.

Household income was not found to be associated with first-year retention, nor were there significant differences in receiving employer support based on income. This finding differs from how household income is typically thought to be related with

retention as having means to pay is shown to increase the likelihood to complete (Gururaj, Helig, & Sommers, 2010). However, this may be a relationship that extends only to traditional undergraduate populations where the income level is typically based on the student's parent's income. When controlling for other variables, the logistic regression model found household income to be a significant predictor of first-year retention. The relationship with first-year retention is such that as household income increases, the likelihood to be retained at 1-year decreases. This is an unexpected finding; however, the primary reasons students enroll in master's programs (pay increase, promotion, and/or change careers) are all related to increasing earning potential (CGS, 2013).

Institutional factors. Overall satisfaction with the institution is commonly associated with retention for undergraduate students (Schreiner & Nelson, 2013). This study found similar results for master's students as there was a significant relationship with first-year retention where satisfaction increases, so does retention. Additionally, when controlling for other variables related to retention, overall satisfaction was found to be a statistically significant predictor of retention. For each increase in retention rating, students were 1.25 times more likely to be retained at 1-year. However, overall satisfaction is a very broad variable and it is not clear what precisely is being measured. If it is possible to pinpoint what aspect of the institution is driving overall satisfaction, it may be a more actionable data point that could be more practical for higher education practitioners.

Student field of study has not been a variable examined closely in master's retention literature. This study found a significant difference between fields of study and retention. Students studying nursing had the highest 1-year retention rate at 68.1% where the counseling and psychology field was the lowest at 50.0%. However, using the nursing field of study as the reference category, and accounting for covariates related to retention, a student's field of study was not a statistically significant predictor of first-year retention.

Socialization/Integration. Feeling connected to faculty is desired by students in distance education courses (Schroder et al., 2016). Also important is receiving quality and timely feedback (Joyner et al., 2014). The "community" scale created out of the OSCS attempted to address these areas but did not find a significant relationship with first-year retention. Additionally, when accounting for other variables that predict retention, faculty connectedness was not a significant predictor. This was a surprising finding considering that in distance education programs the primary and most frequent interactions with individuals from the institution are the faculty.

While research on the connectedness to students has proven to be important for undergraduate campus-based students (Spady, 1971; Tinto, 1975) it has been mixed for master's level students in distance education programs. Some research has suggested that students desire the connection (Cole, Shelley, & Swartz, 2014), while others have found it has no predictive impact toward student persistence (Cohen, 2012). This study aligns with the latter research in that no relationship with retention was found, nor was student connectedness found to be predictive of first-year retention.

Intent to graduate. The qualitative research aimed at understanding why students are successful in distance education programs often suggests that self-motivation, self-discipline, and determination are key (Bunn, 2004; Fedynich, Bradley, & Bradley, 2015; Fincham, 2017; Holzweiss, Fuller, & Henderson, 2014). This study found a significant relationship between self-efficacy and first-year retention which aligns with the qualitative findings of others. When self-efficacy was included in the logistic regression model that controlled for other variables related to retention, it was not found to be a significant predictor.

Students were asked how important it was to graduate from this institution as a method for determining the student intent to persist. This item had a significant relationship with retention and was a significant predictor in the logistic regression model. Each one unit increase in importance to graduate results in students being 1.49 times more likely to be retained at 1-year, controlling for all other variables related to first-year retention. This finding aligns with Cohen's (2012) model of master's student persistence where the variable called intent to persist had the strongest direct effect on persistence in the model.

Theoretical Context

The key assumption in Bean and Metzner's (1985) nontraditional student attrition model that external environmental variables are more important than academic variables holds true for master's level distance education students. While many of the variables contribute to an overall significant model for first-year retention, three of the four individual significant predictors are external environmental variables. It is possible that

receiving employer support, intent to graduate, and annual household income could compensate for poor academic support. However, if these external environmental variables are low and academic support is high it would be expected that students would leave the institution. The results of this study also align to Bean and Metzner's model in that social integration is not as important to these populations of students as it is to traditional campus-based students. The variables in this study touching on connectedness to students and faculty had no significant relationships with first-year retention. The results of this study differ from Bean and Metzner's model in that student demographics had no significant associations with first-year retention. However, this could be due to the similarity of individuals in the sample since 68% are 35 years of age or older, 88% are female, 60% are minority (not white), and 77% are first generation.

Limitations of the Study

This study was limited to master's level students who were employed full-time and enrolled at one for-profit university. One cannot assume that these results would generalize to other types of institutions, degree levels, or students with different employment statuses. The sample used in this study is limited to one cohort of students who began in the fall 2017 term. Limiting the study in this way allowed for a focus on students in a range of master's programs with similar life circumstances.

The study was also limited to students who volunteered to complete the institution's annual student satisfaction survey. The sample is not random and had a very high percentage (88%) of female students which limits the generalizability of the

findings. Additionally, survey respondents are often sensitive to questions related to income which can result in non-response and inaccurate responses (Moore, Stinson, & Welniak, 1997). The data was collected in a way where respondents were asked to identify the income range they fall into, versus indicating a specific income amount, the limitation remains. It was also not possible to pinpoint the specific influences on overall satisfaction ratings. Although overall satisfaction did not strongly correlate with other variables, it is possible that there could be a specific aspect of satisfaction that would be a better predictor of retention.

This study looked at first-year retention. By following students until graduation, the results could differ. Finally, first-year retention is a point-in-time measure. To be considered retained at 1-year the student must have been enrolled in the fall 2018 term. Students who may have taken the fall term off and returned for the winter or spring term are not considered retained in this study.

Recommendations

The recommendations for further research based on this study include using employer support as a retention predictor with other master's student samples. Because this study was conducted at one for-profit institution it would be useful to understand whether employer support impacts first-year retention at other types of institutions including campus-based and hybrid (campus-based and online) schools. Also, of interest would be to explore college types such as graduate non-profit, non-private, and private institutions. Since a majority of students were in a Nursing Master's program (53%) it

would be interesting to establish whether similar results are obtained by students in different master's degree programs. Additionally, the sample in this study was largely female so testing on a sample with a higher proportion of males would contribute to the understanding of the role of employer support in predicting student retention.

Additional research could be conducted on some of the variables used in the model. As noted in the limitations section, research could focus on the specific elements that make up the rating of overall satisfaction. Other researchers have found overall satisfaction with the institution to predict dropout intentions so additional insights may pinpoint the aspect of satisfaction that influences retention (Hardre, Liao, Dorri, & Beeson-Stoesz, 2019). As with employer support, much of the research tends to identify family responsibilities as a hindrance to academic success (Beerkens, Magi, & Lill, 2011; CGS, 2013). Examining family responsibility from the perspective of support for the student could contribute to a stronger retention model. In this study, only students who received employer support from the start of their program were examined. Additional research to understand whether students receive family care related support (childcare, for instance) from employers and at a later point in their academic program would provide more insights.

Further research using alternative outcome measures would contribute to the knowledge base around employer support. This study used first-year retention as the outcome measure but graduation, or graduation within a specific timeframe, would give insight to the long-term impact of employer support. Alternatively, researchers have started taking a more student-centric approach to examining retention and graduation

(Rice & Russell, 2012). Using National Student Clearinghouse data, a student can be identified as retained or graduated if the student enrolled or completed at a different institution from which they started (Jones-White, Radcliffe, Huesman, & Kellog, 2010). The inclusion of information about whether a student continued to be enrolled at any institution would contribute to the understanding of the relationship with employer support.

Implications

There are social change implications from this study at the micro (student), macro (institutional), and mega (societal) levels. Students who do not complete a master's degree lose time, money spent on tuition, and increased future earnings (Johnson, 2012). When students complete a master's degree, they increase their earnings (Okahana & Hao, 2019), and are less likely to engage in unhealthy behaviors such as smoking (Baum, Ma, & Pavea, 2013). This study identified employer support, particularly financial support, as contributing to first-year retention which is a step toward degree completion and the positive outcomes associated with completing a master's degree. If institutions can find a way to ensure that employed students are receiving employer educational benefits, the student should be more successful.

Such an effort by the institution would not only support the students it serves but would help the institution itself in multiple ways. For institutions, students who retain bring in the tuition dollars. In addition, no additional expenses are required for marketing and recruitment to replace a student who has left the institution. Low retention rates and

high attrition rates reflect poorly on the institution which can give a school a poor reputation (Raisman, 2013). Additionally, if institutions can help ensure students use their employer benefits, students would graduate with less debt, which tends to be the biggest regret students have about their education (Gruver, 2019).

When students are successful, they are more likely to complete their degree, and students who complete their degree volunteer and are civically engaged (Bureau of Labor Statistics, 2016). Additionally, student earnings increase with degree completion which leads to more state and federal revenue coming from income taxes (Schneider & Yin, 2011). Finally, as individuals earn educational credentials, they become more self-sufficient and are less likely to require public assistance (Baum, Ma, & Pavea, 2013).

Conclusion

The purpose of this study was to examine the extent to which employer support predicts first-year retention for full-time employees enrolled in master's programs at a for-profit distance education university while controlling for demographics, student background, external factors, institutional factors, integration/socialization, and intent to graduate. Additionally, this research sought to obtain a general sense of the employer support being provided to students. Most master's students are employed so understanding how to use employer support for an advantage adds to the knowledge base in the field.

Slightly over 57% of the sample received some form of employer support but receiving tuition reimbursement/financial support was significantly associated with first-

year retention. When controlling for the other variables known to predict first-year retention four specific variables were found to be significant predictors. The significant predictors were employer support, household income, overall satisfaction, and importance of graduating from the institution. Students who received employer support were almost two times more likely to be retained at 1-year than students who did not. The results of this study can be used by students to communicate with their employer about educational benefits their employers may offer and receive in return. Institutions should encourage students to use employer provided educational benefits. Employers may be able to use educational benefits as a recruitment tool to attract the best talent to their organization.

Student employees who receive employer support are more likely to persist, and they bring newly learned knowledge, skills, and qualifications to their place of employment. This can lead to workplace innovation, employer/employee satisfaction, increased likelihood of promotion, and increased length of tenure with the organization. When employers provide support for their employees to pursue further education, particularly with financial support, both parties benefit.

References

Aarreniemi-Jokipelto, P., & Back, A. (2014, October). *Exploring opportunities to boost adult students' graduation-the reasons behind the delays and drop-outs of graduation*. Paper presented at the 11th International Conference on Cognition and Exploratory Learning in Digital Age, Portugal.

Allen, I. E., & Seaman, J. (2011). *Going the distance: Online education in the United States, 2011.* Babson Park, MA: Babson Survey Research Group. Retrieved from https://www.onlinelearningsurvey.com/reports/goingthedistance.pdf

Andrade, C., & Matias, M. (2017). Adding school to the work-family balance: The role of support for Portuguese working mothers attending a master's degree. *Journal of Adult and Continuing Education, 23*(2), 143-161. doi:10.1177/1477971417721717

Aversa, E., & MacCall, S. (2013). Profiles in retention part 1: Design characteristics of a graduate synchronous online program. *Journal of Education for Library and Information Science, 54*(2), 147-161. Retrieved from https://www.jstor.org/journal/jedulibinfosci

Babyak, M. A. (2004). What you see may not be what you get: A brief, nontechnical introduction to overfitting in regression-type models. *Psychosomatic Medicine, 66*, 411-421. doi:10.1097/00006842-200405000-00021

Baert, S., Marx, I., Neyt, B., Van Belle, E., & Van Casteren, J. (2018). Student employment and academic performance: An empirical exploration of the primary

orientation theory. *Applied Economics Letters, 25*(8), 547-552. doi:10.1080/13504851.2017.1343443

Baker, C. (2010). The impact of instructor immediacy and presence for online student affective learning, cognition, and motivation. *Journal of Educators Online, 7*(1), 1-30. doi:10.9743/JEO.2010.1.2

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117-148. doi:10.1207/s15326985ep2802_3

Barry, M., & Mathies, C. (2011, May). *An examination of master's student retention and completion.* Paper presented at the Association for Institutional Research Annual Forum. Toronto, ON.

Baum, S., Ma, J., & Payea, K. (2013). *Education pays 2013: The benefits of higher education for individuals and society.* Washington, DC: The College Board. Retrieved from https://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report.pdf

Baum, S., & Steele, P. (2017). *Who goes to graduate school and who succeeds?* Washington, DC: Access Group and Urban Institute. Retrieved from https://www.urban.org/sites/default/files/publication/86981/who_goes_to_graduate_school_and_who_succeeds_3.pdf

Bean, J. P. (1979, April). *Dropouts and turnover: The synthesis and test of a causal model of student attrition*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Bean, J. P., & Metzner, B. S. (1985). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research, 55*(4), 485-540. doi:10.2307/1170245

Beerkens, M., Magi, E., & Lill, L. (2011). University studies as a side job: Causes and consequences of massive student employment in Estonia. *Higher Education, 61*(6), 679-692. doi:10.1007/s10734-010-9356-0

Beffy, M., Fougere, D., & Maurel, A. (2010). *The effect of part-time work on post-secondary educational attainment: New evidence from French data*. Institute for the Study of Labor (discussion paper no. 5069). Retrieved from http://repec.iza.org/dp5069.pdf

Blumenstyk, G. (2018). *The adult student: The population colleges-and the nation-can't afford to ignore.* Washington, DC: The Chronicle of Higher Education.

Bocchi, J., Eastman, J. K., & Swift, C. O. (2004). Retaining the online learner: Profile of students in an online MBA program and implications for teaching them. *Journal of Education for Business,* March/April, 245-253. doi:10.3200/joeb.79.4.245-253

Bolliger, D. U., & Inan, F. A. (2012). Development and validation of the online student connectedness survey (OSCS). *International Review of Research in Open and Distance Learning, 13*(3), 41-65. doi:10.19173/irrodl.v13i3.1171

Brewer, E. W. (2011). Secondary data analysis. In N. Salkind (Ed.), *Encyclopedia of measurement and statistics* (pp. 870-876). Thousand Oaks, CA: Sage Publications.

Budash, D., & Shaw, M. (2017). Persistence in an online master's degree program: Perceptions of students and faculty. *Online Journal of Distance Learning Administration, 20*(3). Retrieved from https://www.westga.edu/~distance/ojdla/fall203/budash_shaw203.html

Bunn, J. (2004). Student persistence in a LIS distance education program. *Australian Academic & Research Libraries, 35*(3), 253-269. doi:10.1080/00048623.2004.10755275

Bureau of Labor Statistics. (2016). *Volunteering in the United States, 2015*. Retrieved from https://www.bls.gov/news.release/volun.nr0.htm

Bureau of Labor Statistics. (2018). *BLS information: Glossary.* Retrieved from https://www.bls.gov/bls/glossary.htm#F

Burns, E., & Simon, L. (2017). *Investing in talent: A policy primer and perspectives on employer-provided educational assistance.* Retrieved from https://ga-core.s3.amazonaws.com/cms/files/files/000/004/638/original/EmployerPay2017.pdf

Carnevale, A. P., Smith, N., Melton, M., & Price, E. W. (2015). *Learning while earning: The new normal.* Washington, DC: Georgetown University Center on Education and the Workforce. Retrieved from https://cew.georgetown.edu/wp-content/uploads/Working-Learners-Report.pdf

Carroll, D., Ng, E., & Birch, D. (2013). Strategies to improve retention of postgraduate business students in distance education courses: An Australian case. *Turkish*

Online Journal of Distance Education, 14(3), 140-153. Retrieved from http://www.tojdel.net/index.php

Census Bureau. (2018). *Occupations that need more education for entry are projected to grow faster than average.* Retrieved from https://www.bls.gov/emp/ep_table_education_summary.htm

Chiang, Y., Arendt, S. U., Zheng, T., & Hanisch, K. A. (2014). The effects of sleep on academic performance and job performance. *College Student Journal, 48*(1), 72-87. Retrieved from https://www.projectinnovation.com/college-student-journal.html

Clinefelter, D. L., & Aslanian, C. B. (2017). *Online college students 2017: Comprehensive data on demands and preferences.* Louisville, KY: The Learning House, Inc.

Cohen, K. E. (2012, Nov). *What about master's students? The master's student persistence model.* Paper presented at the annual meeting of the Association for the study of Higher Education, Las Vegas, NV.

Cohen, M. A., & Greenberg, S. (2011). The struggle to succeed: Factors associated with the persistence of part-time adult students seeking a master's degree. *Continuing Higher Education Review, 75*, 101-112. Retrieved from https://projects.iq.harvard.edu/cher

Cole, M. T., Shelley, D. J., & Swartz, L. B. (2014). Online instruction, e-learning, and student satisfaction: A three year study. *International Review of Research in Open and Distance Learning, 15*(6), 111-131. doi:10.19173/irrodl.v15i6.1748

Council of Graduate Schools. (2013). *Completion and attrition in STEM master's programs: Pilot study findings*. Washington, DC: Author.

Cowen, T., & Tabarrok, A. (2014). The industrial organization of online education. *American Economic Review: Papers & Proceedings, 104*(5), 519-522. doi:10.1257/aer.104.5.519

Creative Research Systems. (2012). *Sample size calculator*. Retrieved from https://www.surveysystem.com/sscalc.htm

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches (3rd ed.).* Thousand Oaks, CA: Sage.

Current Population Survey. (2015). *Historical reported voting rates – percent voted by educational attainment.* Retrieved from https://www.census.gov/content/dam/Census/library/visualizations/time-series/demo/a2-educational.jpg

Darolia, R. (2014). Working (and studying) day and night: Heterogeneous effects of working on the academic performance of full-time and part-time students. *Economics of Education Review, 38*, 38-50. doi:10.1016/j.econedurev.2013.10.004

Donders, A. R., van der Heijden, G., Stijnen, T., & Moons, K. G. (2006). Review: A gentle introduction to imputation of missing values. *Journal of Clinical Epidemiology, 59*, 1087-1091. doi:10.1016/j.jclinepi.2006.01.014

Eller, A. M., de Araujo, B. F. V. B., & de Araujo, D. A. V. B. (2016). Balancing work, study, and home: A research with master's students in a Brazilian university.

Revisita de Administracao Mackenzie, 17(3), 60-84. doi:10.1590/1678-69712016/administracao.v17n3p60-83

Elliott, K. M., & Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Education, 10*(4), 1-11. doi:10.1300/j050v10n04_01

Engle, J., & Tinto, V. (2008). *Moving beyond access: College success for low-income, first-generation students.* Washington, DC: The Pell Institute.

Evans, C., Gbadamosi, G., & Richardson, M. (2014). Flexibility, compromise and opportunity: Students' perceptions of balancing part-time work with a full-time business degree. *International Journal of Management Education, 12*, 80-90. doi:10.1016/j.ijme.2014.02.001

Evans, C., Maxfield, T., & Gbadamosi, G. (2015). Using part-time working to support graduate employment: Needs and perceptions of employers. *Industry & Higher Education, 29*(4), 305-314. doi:10.5367/ihe.2015.0260

Fedynich, L., Bradley, K. S., & Bradley, J. (2015). Graduate students' perceptions of online learning. *Research in Higher Education Journal, 27*. Retrieved from http://www.aabri.com/rhej.html

Field, A. (2013). *Discovering statistics using IBM SPSS statistics (4th ed.).* London: Sage.

Fincham, D. (2017). Implications and challenges in studying as a full distance learner on a masters programme: Students' perspectives. *International Journal of Higher Education, 6*(1), 34-47. doi:10.5430/ijhe.v6n1p34

Flaherty, C. N. (2007). The effect of tuition reimbursement on turnover: A case study analysis. *National Bureau of Economic Research*, Working Paper 12975. doi:10.3386/w12975

Girves, J. E., & Wemmerus, V. (1988). Developing models of graduate student degree progress. *Journal of Higher Education, 59*(2), 163-189. doi:10.1080/00221546.1988.11778320

Gruver, J. (2019). Biggest college regrets. *PayScale*. Retrieved from https://www.payscale.com/data/biggest-college-regrets

Gururaj, S., Heilig, J. V., & Somers, P. (2010). Graduate student persistence: Evidence from three decades. *Journal of Student Financial Aid, 40*(1), 31-46. Retrieved from https://publications.nasfaa.org/jsfa/

Hammond, D. E., & Shoemaker, C. (2014). Are there differences in academic and social integration of college agriculture master's students in campus based, online and mixed programs? *North American Colleges and Teachers of Agriculture Journal, 58*(3), 181-188. https://www.jstor.org/stable/nactajournal.58.3.180

Hardre, P. L., Liao, L., Dorri, Y., & Beeson-Stoesz, M. A. (2019). Modeling American graduate students' perceptions predicting dropout intentions. *International Journal of Doctoral Studies, 14*, 105-132. doi:10.28945/4161

Hardre, P. L., & Pan, R. (2017). The best and worst of graduate school: Graduate students' self-report narratives of what helps and hurts their success. *The Journal of Faculty Development, 31*(2), 5-19. Retrieved from https://newforums.com/our-titles/journals/the-journal-of-faculty-development/

Holzweiss, P. C., Joyner, S. A., Fuller, M. B., Henderson, S., & Young, R. (2014). Online graduate students' perceptions of best learning experiences. *Distance Education*, *35*(3), 311-323. doi:10.1080/01587919.2015.955262

Hwang, J. (2013). Employment and student performance in principles of economics. *International Review of Economics Education, 13*, 26-30. doi:10.1016/j.iree.2013.04.013

International Personality Item Pool. (n.d.a). *The Items in Each of the Preliminary IPIP Scales Measuring Constructs Similar to Those in the NEO-PI-R.* Retrieved from https://ipip.ori.org/newNEOKey.htm#Self-Efficacy

International Personality Item Pool. (n.d.b). *A Comparison between the 30 facet scales in Costa and McCrae's NEO Personality Inventory (NEO-PI-R) and the corresponding preliminary IPIP scales measuring similar constructs.* Retrieved from https://ipip.ori.org/newNEO_FacetsTable.htm

Johnson, N. (2012). *The institutional costs of student attrition.* Washington, DC: American Institutes for Research. Retrieved from https://www.deltacostproject.org/sites/default/files/products/Delta-Cost-Attrition-Research-Paper.pdf

Jones, G. (2010). *Who benefits from section 127? A study of employee education assistance provided under section 127 of the internal revenue code.* Retrieved from http://www.cpepea.com/wp-content/uploads/2017/05/10-0418-Coalition-Report-on-Public-Policy-Issue-E-P-E-A_FNL.pdf

Jones-White, D. R., Radcliffe, P. M., Huesman, R. L., & Kellogg, J. P. (2010).

Redefining student success: Applying different multinomial regression techniques for the study of student graduation across institutions of higher education. *Research in Higher Education, 51*, 154-174. doi:10.1007/s11162-009-9149-4

Joyner, S. A., Fuller, M. B., Holzweiss, P. C., Henderson, S., & Young, R. (2014). The importance of student-instructor connections in graduate level online courses. *Journal of Online Teaching and Learning, 10*(3), 436-445. Retrieved from http://jolt.merlot.org/

Kaufman, R., Oakley-Browne, H., Watkins, R., & Leigh, D. (2003). *Strategic planning for success: Aligning people, performance, and payoffs.* San Francisco, CA: Jossey-Bass.

Kowalski, T. J., Dolph, D., & Young, I. P. (2014). Student motives for taking online courses in educational administration. *Educational Research Quarterly, 38*(1), 27-42. Retrieved from http://erquarterly.org/

Lawson, A., Leach, M., & Burrows, S. (2012). The implications for learners, teachers and institutions of using student satisfaction as a measure of success: A review of the literature. *Education Journal, 138*, 7-11. Retrieved from https://www.educationpublishing.com/ej.shtml

Lumina Foundation. (2016a). *Talent investment pays off: Cigna realizes return on investment from tuition benefits.* Retrieved from https://www.luminafoundation.org/files/resources/talent-investments-pay-off-cigna-full.pdf

Lumina Foundation. (2016b). *Talent investment pays off: Discover financial services*

realizes returns for investments in tuition reimbursement. Retrieved from https://www.luminafoundation.org/files/resources/discover-roi-executive-briefing.pdf

Ma, J., Pender, M., & Welch, M. (2016). *Education pays 2016: The benefits of higher education for individuals and society.* Trends in Higher Education Series: College Board. Retrieved from https://trends.collegeboard.org/sites/default/files/education-pays-2016-full-report.pdf

Magada, A. J., & Aslanian, C. B. (2018). *Online college students 2018: Comprehensive data on demands and preferences.* Louisville, KY: The Learning House, Inc. Retrieved from https://49hk843qjpwu3gfmw73ngy1k-wpengine.netdna-ssl.com/wp-content/uploads/2018/06/OCS-2018-Report-FINAL.pdf

Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning Journal, 22*(1), 205-222. doi:10.24059/olj.v22i1.1092

Milman, N. B., Posey, L., Pintz, C. Wright, K., & Zhou, P. (2015). Online master's students' perceptions of institutional supports and resources: Initial survey results. *Online Learning, 19*(4), 45-66. doi:10.24059/olj.v19i4.549

Moore, J. C., Stinson, L., L., & Welniak, E. J. (1997). *Income measurement error in surveys: A review.* Unpublished manuscript, Bureau of the Census, Washington, DC, U.S. Retrieved from https://www.census.gov/srd/papers/pdf/sm97-05.pdf

National Center for Education Statistics. (2016). *2015-16 National postsecondary student*

aid study [Data file]. Retrieved using PowerStats https://nces.ed.gov/datalab/index.aspx

National Center for Educational Statistics. (2018a). *Distance education.* Retrieved from 2017-18 Survey Materials: Glossary https://surveys.nces.ed.gov/ipeds/Downloads/Forms/IPEDSGlossary.pdf

National Center for Educational Statistics. (2018b). *Retention rate.* Retrieved from 2018-19 Survey Materials: Glossary https://surveys.nces.ed.gov/ipeds/Downloads/Forms/IPEDSGlossary.pdf

National Center for Education Statistics. (2019). *1999-2000 National Postsecondary Student Aid Study (NPSAS:2000), 2003-04 National Postsecondary Student Aid Study (NPSAS:04), 2007-08 National Postsecondary Student Aid Study (NPSAS:08) and 2015-16 National Postsecondary Student Aid Study (NPSAS:16)* [Data file]. Retrieved August 2019 using TrendStats https://nces.ed.gov/datalab/trendstats/trends.aspx

Neyt, B., Omey, E., Verhaest, D., & Baert, S. (2017). *Does student work really affect educational outcomes? A review of the literature*. Global Labor Organization Discussion Paper, No. 121. Retrieved from http://ftp.iza.org/dp11023.pdf

Nui, L. (2018). A review of the application of logistic regression in educational research: Common issues, implications, and suggestions. *Educational Review*. doi:10.1080/00131911.2018.1483892

O'Connor, B. N., & Cordova, R. (2010). Learning: The experiences of adults who work full-time while attending graduate school part-time. *Journal of Education for Business, 85*, 359-368. doi:10.1080/08832320903449618

Okahana, H., & Zhou, E. (2017). *Graduate enrollment and degrees: 2006 to 2016*. Washington, DC: Council of Graduate Schools.

Organization for Economic Co-operation and Development. (2003). *Employment, status in.* Retrieved from https://stats.oecd.org/glossary/detail.asp?ID=786

Peduzzi, P., Concato, J., Kemper, E., Holford, T. R., & Feinstein, A. R. (1996). A simulation study of the number of events per variable in logistic regression analysis. *Journal of Clinical Epidemiology, 49*(12), 1373-1379. doi:10.1016/s0895-4356(96)00236-3

Pett, M., Lackey, N., & Sullivan, J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research.* Thousand Oaks, CA: Sage Publications.

Price, J. (1977). *The study of turnover.* Ames, IA: The Iowa State University Press.

Prince, M., Burns, D. J., & Manolis, C. (2014). The effects of part-time MBA programs on students: The relationships between students and their employers. *Journal of Education for Business, 89*, 300-309. doi:10.1080/08832323.2014.900470

Radwin, D., Conzelmann, J.G., Nunnery, A., Lacy, T. A., Wu, J., Lew, S., Wine, J., and Siegel, P. (2018). *2015–16 National Postsecondary Student Aid Study (NPSAS:16): Student financial aid estimates for 2015–16 (NCES 2018-466)*. U.S. Department of Education. Washington, DC: National Center for Education

Statistics. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018466

Raisman, N. (2013). *Policy perspectives: The cost of college attrition at four-year colleges & universities.* The Educational Policy Institute. Retrieved from http://www.educationalpolicy.org/pdf/1302_PolicyPerspectives.pdf

Rice, G. A., & Russell, A. B. (2012). Refocusing student success: Toward a comprehensive model. In R. Howard, G. McLaughlin, & W. Knight (Eds.), *The handbook of institutional research* (pp. 237-253). San Francisco, CA: Jossey-Bass.

Richardson, M., Evans, C., & Gbadamosi, G. (2014). The work-study nexus: The challenges of balancing full-time business degree study with a part-time job. *Research in Post-Compulsory Education, 19*(3), 302-309. doi:10.1080/13596748.2014.920582

Ridner, S. L., Newton, K. S., Staten, R. R., Crawford, T. N., & Hall, L. A. (2016). Predictors of well-being among college students. *Journal of American College Health, 64*(2), 116-124. doi:10.1080/07448481.2015.1085057

Ross, J., & Sheail, P. (2017). The 'campus imaginary': Online students' experience of the masters dissertation at a distance. *Teaching in Higher Education, 22*(7), 839-854. doi:10.1080/13562517.2017.1319809

Rovai, A. P. (2003). In search of higher persistence rates in distance education online programs. *The Internet and Higher Education, 6*, 1-16. doi:10.1016/s1096-7516(02)00158-6

Saar, E., Voormann, R., & Lang, A. (2014). Employers' support for adult higher education student in liberal post-socialist contexts. *Journal of Lifelong Education, 33*(5), 587-606. doi:10.1080/02601370.2014.945624

Sallee, M. W. (2015). Adding academics to the work/family puzzle: Graduate student parents in higher education and student affairs. *Journal of Student Affairs Research and Practice, 52*(4), 401-413. doi:10.1080/19496591.2015.1083438

Schmitt, N., & Stults, D. (1985). Factors defined by negatively keyed items: The result of careless respondents? *Applied Psychological Measurement, 9*(4), 367-373. doi:10.1177/014662168500900405

Seaman, J. E., Allen, I. E., & Seaman, J. (2018). *Grade increase: Tracking distance education in the United States.* Retrieved from https://onlinelearningsurvey.com/reports/gradeincrease.pdf

Schneider, M., & Yin, L. (2011). *The high cost of low graduation rates: How much does dropping out of college really cost?* Washington, DC.: American Institutions for Research. Retrieved from https://www.collegeincolorado.org/Images/CiC/pdfs/Press_Room/high_cost_of%20low_graduation.pdf

Schreiner, L. A., & Nelson, D. D. (2013). The contribution of student satisfaction to persistence. *Journal of College Student Retention: Research, Theory & Practice, 15*(1), 73-111. doi:10.2190/cs.15.1.f

Schroeder, S., Baker, M., Terras, K., Mahar, P., & Chiasson, K. (2016). Students' desired and experienced levels of connectivity to an asynchronous, online, distance

degree program. *Online Learning, 20*(3), 244-263. doi:10.24059/olj.v20i3.691

Shadish, W., Cook, T., & Campbell, D. (2001). *Experimental and quasi-experimental designs for generalized causal inference (2nd ed.)*. Boston, MA: Houghton Mifflin.

Society for Human Resource Management. (2018). *2018 employee benefits: The evolution of benefits.* Retrieved from https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/2018%20Employee%20Benefits%20Report.pdf

Spady, W. G. (1971). Dropouts from higher education: Toward an empirical model. *Interchange, 2*(3), 38-62. doi:10.1007/bf02282469

Stevenson, T. L. (2013). Online student persistence: What matters is outside the classroom. *Journal of Applied Learning Technology, 3*(1), 21-25.

Strayhorn, T. (2010). Money matters: The influence of financial factors on graduate student persistence. *Journal of Student Financial Aid, 40*(3), 4-25. Retrieved from https://publications.nasfaa.org/jsfa/

Thune, T., & Storen, L. A. (2015). Study and labour market effects of graduate students' interaction with work organizations during education. *Education + Training, 57*(7), 702-722. doi:10.1108/et-10-2014-0126

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research, 45*(1), 89-125. doi:10.2307/1170024

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: The University of Chicago Press.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition (2nd ed.)*. Chicago, IL: The University of Chicago Press.

Triventi, M. (2014). Does working during higher education affect students' academic progression? *Economics of Education Review, 41*, 1-13. doi:10.1016/j.econedurev.2014.03.006

Tumin, & Faizuddin, A. (2017). The experiences of working while studying: A case study of postgraduate students at international Islamic university Malaysia. Retrieved from https://www.researchgate.net/publication/328379557_The_Experiences_of_Working_While_Studying_A_Case_Study_of_Postgraduate_Students_at_International_Islamic

United States Department of Labor. (2018). *Full-time employment.* Retrieved from https://www.dol.gov/general/topic/workhours/full-time

Ward, G., & Dixon, H. (2014). The research masters experience: The impact of efficacy and outcome expectations on enrollment and completion. *Journal of Further and Higher Education, 38*(2), 163-181. doi:10.1080/0309877x.2012.706804

Warner, R. (2013). *Applied statistics: From bivariate through multivariate techniques.* Thousand Oaks, CA: Sage.

Waugh, M., & Searle, J. (2014). Student persistence and attrition in an online M.S. program: Implications for program design. *International Journal on E-Learning, 13*(1), 101-121. Retrieved from http://www.aace.org/pubs/ijel/

Weerasinghe, I. S., Lalitha, R., & Fernando, S. (2017). Students' satisfaction in higher

education literature review. *American Journal of Educational Research, 5*(5), 533-539. Retrieved from http://www.sciepub.com/journal/EDUCATION

Wyland, R. L., Lester, S. W., Mone, M. A., & Winkel, D. E. (2013). Work and school at the same time? A conflict perspective of the work-school interface. *Journal of Leadership & Organizational Studies, 20*(3), 346-357. doi:10.1177/1548051813484360

Wyland, R. L., Winkel, D. E., Lester, S. W., & Hanson-Rasmussen, N. (2015). Who can help working students? The impact of graduate school involvement and social support on school-work facilitation. *Industry & Higher Education, 29*(3), 175-184. doi:10.5367/ihe.2015.0254

Yang, D., Baldwin, S., & Snelson, C. (2017). Persistence factors revealed: Students' reflections on completing a fully online program. *Distance Education*, *38*(1), 23-36. doi:10.1080/01587919.2017.1299561

Zimmerman, T. (2015). *Testing the psychometric properties of the online student connectedness survey* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (1775723526)

Ziskin, M., Torres, V., Hossler, D., & Gross, J. (2010). Mobile working students: A delicate balance of college, family and work. In L. Perna (Ed.), *Understanding the working college student: New research and its implications for policy and practice* (pp. 67-92). Sterling, VA: Stylus.