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## **SPECIAL ISSUE ON RETENTION**

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## Editorial

Retention and persistence are at the forefront of attention by students, parents, and state and federal lawmakers. We continue several decades of increasing education costs and the perception of steadily decreasing returns on investment of time and money required to achieve a higher education credential. Thus, a special issue devoted to retention is timely. Included in this special issue of the Higher Learning Research Communications journal are a number of thought pieces and literature reviews that represent diverse perspectives on retention.

Dr. Watson Scott Swail provides a provocative essay, *A Different Viewpoint on Retention*, in which he challenges readers to reflect on the key issues regarding retention of students. While he provides compelling statistics on the growing costs of getting a college degree, he reminds us that the core issue is one of student preparation. Dr. Swail also encourages institutions to determine what success means in its own context, through statistical analysis of predictors of retention and persistence whose results can be socialized at all who support students at the institution.

Dr. Gary Burkholder and Nicole Holland provide an international perspective on retention and persistence. Through introductory analysis of the state of retention and persistence research in areas outside the United States, they encourage readers to think about retention more globally. The authors ask the readers to consider how what we have learned about higher education, as well as retention and persistence, in the United States, can help researchers and practitioners to address higher education concerns in more meaningful and helpful ways. Dr. Rebecca Jobe and Jim Lenio then provide insight on retention and persistence research across student and institutional types as well as across educational sectors. The authors convincingly suggest that retention is a concern that should provide a common ground for all institutions, regardless of type or sector, for research and application that ultimately can lead to student success.

Two literature reviews look at different aspects of retention. Dr. Judie Brill and her coauthors examine the critical need of improving doctoral student retention. They advocate for a mentoring model that incorporates aspects of peer and faculty mentoring. The authors also propose incorporation of developmental projects, such as scholarly publication, that can help improve retention by providing a roadmap of how to be successful after obtaining the doctoral degree. Dr. Iris Yob takes a novel approach to retention by connecting it to service learning. Her theoretical and empirical approach to integrating two lines of research—one on service learning and the other on the longer-term impacts of service learning on student persistence—set a foundation for pilot studies that explore the impact of service learning.

Retention and persistence are complex issues; while a single special issue won't address the multifaceted challenges associated with getting students to graduation, such publications can foster ideas that form the next generations of research in this area. It is our hope that this issue helps generate some of these important questions.

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## International Perspectives on Retention and Persistence

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### Introduction

Improving retention and persistence in higher education institutions in the United States has been a key priority since the 1970's, when researchers began focusing on why students were leaving school. The focus for institutions up to that time was primarily on financial viability; achieving sustainability through increased enrollment and college attendance then became important (Morrison & Silverman, 2012, p. 62). Researchers in persistence and retention have proposed a number of theoretical models to explain why students do and do not persist in traditional higher education settings; these models have evolved over time to include reasons for attrition among non-traditional students, ethnic minority students, and others.

Calderon (2012) reported that the number of students enrolled in tertiary education worldwide will likely increase 314% between 2000 and 2030; such a dramatic increase presents challenges for retention and persistence of students. As education is becoming increasingly global in nature through the establishment of branch campuses, mobility of international students, and the increasing reach made possible through internet delivery, it is important to clarify our understanding of retention and persistence and its potential consequences for education worldwide. Researchers can use the experiences of the development of higher education infrastructure in the United States to guide models of development in other countries outside the U.S.. In a similar manner, understanding the challenges faced in higher education outside the U.S. can provide perspectives on contemporary understanding of persistence and retention.

Participation in and completion of higher (tertiary) education degrees has become a priority worldwide. In the United States, President Obama has set significant goals for higher education attainment; for example, he has suggested that community colleges should strive for 5 million graduates by 2020 (The White House, 2013). The European Union (EU) has stated a goal of 40% of all traditional college age individuals having graduated from a higher education institution by 2020 (European Commission, 2013, p. 12). In developing countries, there is a pressing need to provide tertiary education that supports the professions that are necessary to sustain a rising middle class and thus a healthy economy (Kapur & Crowley, 2008). This expressed need is not without positive consequences.

Research in the United States continues to support the economic and social advantage that results from achieving a tertiary degree. “Higher education benefits students, employers, the economy and society. Graduates earn higher salaries and contribute more, on average, to economic growth” (Comptroller and Auditor General, 2007, p. 5).

Greenstone, Looney, Patashnik, and Yu (2013), as part of a policy statement, demonstrated that higher education is one pathway out of poverty (p. 14) and that the annual earnings of college graduates, compared to those who did not attend college, were approximately double (p. 16). The Organization for Economic Cooperation and Development (OECD, 2012) reported that employment rates are 28% higher for graduates from tertiary programs compared to those who have not completed upper secondary education (p. 120). It is evident that higher education holds a promise for better employability and higher individual incomes globally as well as for more general social and economic prosperity, particularly in developing countries seeking to expand the middle class. As such, these benefits of tertiary education appear to have encouraged participation.

Enrollment in tertiary education has increased significantly. Kapur and Crowley (2008) noted that the number of students in tertiary education worldwide approximately doubled between 1991 and 2004 to 123 million students. In a report prepared for the United Nations Educational, Scientific, and Cultural Organization (UNESCO), Altbach, Reisberg, and Rumbley (2009) pointed that “the percentage of the [college] age cohort enrolled in tertiary education has grown from 19% in 2000 to 26% in 2007” (p. vi); the authors also noted that “there are some 150.6 million tertiary students globally, roughly a 53% increase over 2000” (p. vi). Of note is that the largest gains have been in middle income countries and the least in developing nations (Altbach et al., 2009).

Statistics on enrollments in higher education in select countries provide insight into these trends. Gross enrollment ratios (the percentage of students in higher education of the total population of eligible students) between 1980 and 2004 more than doubled in Southeast Asia (to 9.7%) and in Latin America (to 28.6%); other areas saw more significant expansions (for example, in the least developed countries, the percentage increased nearly 4 times to 8.7%) (Kapur & Crowley, 2008). Much of this is likely due to improvements in primary education rates; however, such improvements continue to place stresses on tertiary education structures that may be unable to accommodate the larger number of students seeking higher education degrees (Kapur & Crowley, 2008). Although students are enrolling in tertiary education at increasing rates, attention must also be given to whether these same students are progressing and eventually completing their degrees.

### **International Retention and Persistence Data**

Retention data was found for a few select countries and for varying cohorts. In a multi-national analysis of retention in tertiary education, van Stolk et al. (2007) provided available retention rate data as context for a discussion of retention strategies. First year retention rates of 78% were cited for a 2002 cohort of Australian undergraduate students and 97% for a 1999 cohort of native Dutch students in the Netherlands (van Stolk et al., 2007). The National Audit Office (2007) reported a 91% first year retention rate for a 2004 cohort of tertiary students in the

United Kingdom; this rate ranging by country between 89.3% (Scotland) and 91.6% (England) and remaining fairly stable since 1999. More recent data can be found for first time, full time undergraduate students in the United States via the Integrated Postsecondary Data System (IPEDS). The first year retention rate for a 2010 cohort of full time, first time undergraduates from all participating U.S. institutions was 78% (National Center for Education Statistics, 2010).

Graduation and completion rates were reported more broadly. According to the 2013 OECD *Education at a Glance* report, an analysis of graduation rates (defined as the total number of graduates divided by the population at the typical age of graduation for said educational level) revealed that “39% of young people will graduate from tertiary-type A first-degree programmes (often called a bachelor’s degree) and 17% from tertiary-type A second degree programmes (often called a master’s degree)” (OECD, 2013, p. 56). Like enrollment rates, graduation rates have been increasing over time. The 2013 OECD report noted a 19 percentage point average increase in graduation rates from 1995 to 2011 amongst OECD countries for first degree (bachelors) programs. Graduation rates are lower when we look at non-OECD or other G20 countries (e.g., Argentina, Brazil, China, India, and South Africa) with an average graduation rate of 29% from first degree (bachelors) and 9% from second degree (master’s) tertiary programs across G20 countries combined (OECD, 2013).

In addition to graduation rates, the OECD provides another measure of persistence via completion rates (defined as the percentage of students who enter tertiary education in a specific cohort and eventually graduate). About 70% of students across OECD countries graduated from a first degree (bachelors) program, with completion rates ranging from 48% (Hungary) to 91% (Japan) (OECD, 2013). The United States falls below the OECD average, reporting a completion rate of 64%. Although completion rate data were not available within the OECD report for other G20 countries, Fisher and Scott (2007) found that for African higher education institutions, only 30% of first-time students will graduate within 5 years; completion rates also varied across field of study; ranging from 60% completion in business/management professional bachelor’s degree programs to 17% in engineering diploma degree programs. Additionally, rather large differences in completion rates between black and white students in Africa were found, with white students completing professional bachelor’s degrees in business/management at rates more than two times that of black students (33% compared to 83%; Fisher & Scott, 2007).

### **International Retention Strategies**

A number of researchers have proposed models of retention, including Astin (1984); Bean (2005); and Tinto (1975; 1993; 2012). Tinto’s model of student persistence is probably one of the most widely recognized frameworks for understanding undergraduate student retention (Met, 2004). Tinto identified a number of factors that influence this transition and impact individual decisions affecting degree attainment, including background variables (student high school academic performance, parent education, and individual personality attributes); institutional variables (support by teachers, learning facilities); and situational factors (such as medical circumstances, and debt, family, and other obligations). Family and individual background variables, institutional factors, and situational factors influence student academic and institutional commitment that are critical to academic and social integration into the institution, and the success of this integration impacts graduation outcomes.



A detailed analysis of the different theories is beyond the scope of this article; others have explored this area in great detail. Seidman (2012) has an edited book that describes thoroughly the different models of retention and empirical support; Metz (2004) provides a detailed historical analysis of the evolution of the Tinto model in the context of competing models, and Salter (2012) described how online student retention would be influenced using Bean's themes of college student success. What is useful is a preliminary examination of factors related to student retention and persistence outside the U.S. in order to gain an initial understanding of what kinds of interventions could be useful and whether the models of retention and persistence that guide interventions in the United States have broader applicability.

Retention and persistence research outside the U.S. has focused on the need for better college preparation, increased educational financial resources for both institutions and students, and the ability to attract high quality faculty. In Africa, (which arguably also holds true for other developing countries), large drop-out rates in primary and secondary education result in a smaller proportion of the population ready for tertiary education, and interventions aimed at developing skills at the post-secondary level are needed (Fisher & Scott, 2007). The authors proposed the development of a post-secondary sector that would focus on preparation for tertiary education for those who did not complete secondary schooling. There has been growing recognition as well in the United States for the need for programs to prepare students for higher education, particularly those who are first generation and working adults, many of whom have been out of school for significant periods of time (Burkholder et al., 2013; Morrison & Silverman, 2012). Africa is not alone in focusing their resources towards establishing and improving tertiary preparation.

Asia has been investing significant resources in primary education which ultimately should boost numbers of prepared students who can succeed in tertiary education (Pfeiff, 2010). However, Pfeiff also noted that there is still much work to be done at the higher grade levels, particularly where (a) college competition is stiff and limited numbers of students enter; (b) many students are still not sufficiently prepared for further education; and (c) the number of students needing skills training offered in post-secondary education far outpaces available space. Such preparation is consistent with Seidman's model (Morrison & Silverman, 2012) that focuses on developing student success skills as a necessary component of institutional retention efforts.

Financial resources are likely to be a concern for establishing access to tertiary education worldwide. A study of education in Brazil, Colombia, Mexico, and Peru demonstrated that living costs are a higher percentage of gross national product per capita than in high-income countries (29% compared to 19%) and that students in those countries pay a significant proportion of the education expense (60% of gross domestic product per capita compared with 19% in high-income countries) (Murakami & Blom, 2008). In addition, low levels of grant aid compound financial inability to attend tertiary education. The Asian Development Bank (2010) noted that increased private-public partnerships would be necessary to offset the high costs of providing post-secondary education. Authors found in one major study comparing attrition causes in the United Kingdom, Netherlands, United States, and Australia that financial burden is a primary cause of attrition (van Stolk, Tiessen, Clift, & Levitt, 2007). Financial support at the

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individual level as well as at the government level (to boost infrastructure) is a necessary component of access, retention, and persistence to graduation.

### **Retention and Persistence in Global Tertiary Education: Questions for the Future**

This brief analysis raises several areas for further research regarding understanding retention and persistence in tertiary education on a global level.

#### **Access**

While not directly related to retention and persistence, as education becomes increasingly global, the number of opportunities for quality tertiary education greatly expands. To take advantage of this, prospective students will need access to those resources which will require technology infrastructures that are variable across the globe. Globally, the number of internet users has increased from about 14% in 2004 to 36% in 2012 (World Bank, 2014). However, internet access is highly variable with greater than 80% of the population in the U.S. and in many European countries, to less than 10% in many Asian and African countries. Moreover, within Asia, internet access ranges from 0.5% (Cambodia) to 73.8% (Japan) (Asian Development Bank, 2012). When e-learning readiness (defined as an organization/country preparedness to engage in e-learning activities) was examined, country rankings ranged (out of 70 countries included) from 5<sup>th</sup> (Korea) to 59<sup>th</sup> (Sri Lanka), indicating that many countries in Asia have a significant way to go in order to have distance learning become a viable and significant part of the educational delivery system (Asian Development Bank, 2012). Also useful would be an analysis of the roles that private and public, not-for-profit and for-profit entities play in improving access to quality education.

#### **Infrastructure**

It is likely that the paths to developing the necessary infrastructure to support tertiary education will follow a path similar to that in the U.S., with an initial focus on sustaining education followed by retention. As noted previously, in the earliest stages of evolution of higher education, it is only when the infrastructure was in place that attention could shift from a focus on stability to retention and persistence, and the important role both play in longer-term financial viability could be recognized. To what extent can we learn from our (U.S.) history to help developing countries to create the infrastructure necessary to support a sound tertiary education system that is so important to nurturing the development of a strong middle class? In addition, hiring qualified faculty to teach at the tertiary level can be challenging in countries where that education is not established (Kotecha, 2009). Deeper and critical analysis of the issues related to sustainability in the context of global efforts by the World Bank, the Organization for Economic Cooperation and Development, and other entities is warranted; such analysis can help direct resources to where they are most needed.

#### **Financial Considerations**

One of the key components of access is financial; people need to be able to finance, in an affordable way, their education. For example, in the U.S., the cost of education continues to increase as the amount of direct state and federal aid to tertiary education institutions continues



to decrease. While students have access to support through federal and private loans, the overall debt burden is dramatically increasing; students in the U.S. are going further into debt and defaulting at an increasing level on their student loans (Greenstone et al., 2013). Previously noted were the high cost of living expenses and education in South American countries relative to other countries in the world. As it is likely that students, both in the U.S. and internationally, base persistence decisions on the perceived value of the education in relation to accumulated debt, the roles of global bodies, such as the World Bank, federal/national and local governments, and the individual in financing education should be examined.

### **Readiness for tertiary education**

Readiness for tertiary education is probably one of the largest challenges facing higher education globally and will have a significant impact on retention. In many developing countries, improving access to and graduation from primary and secondary education is creating a large demand for institutions of higher education; however, many of those students may not be poised for success. As higher education access improves and the focus shifts from viewing college attainment as something for the intellectual elite to a reasonable goal for all, the policies toward open access (or broad admission) creates a large pool of college ready individuals who do not necessarily demonstrate the competencies to be successful. Fisher and Scott (2007) proposed a new post-secondary sector as one solution.

### **Data and common language**

Tertiary student retention and persistence data proved difficult to find. An initial search for retention and graduation rates globally resulted in limited and often inconsistent sources as data for only a few select countries and non-comparable cohorts. Additionally, although common terminology tended to be used, definitions differed across countries.

### **Conclusion**

This brief analysis demonstrates that higher (tertiary) education is moving into an exciting phase as a large number of higher education and government entities, for-profit and not-for-profit, are expanding greatly access to education. However, the rapid expansion raises risks for retention and persistence, particularly from a financial and academic preparation perspective. More research is needed that examines retention and persistence from a global perspective as more students move across borders to access education and as education is delivered to more countries globally.

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## Common Ground: Addressing Attrition Across Diverse Institutions in Higher Education

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### Abstract

Student attrition is an ongoing concern in American higher education, where institutions are being increasingly held accountable for the success of the students they admit. While differences across diverse institutions exist, research suggests that there are many similarities regarding issues related to student persistence and success. In fact, this common ground presents an opportunity for common solutions. The variety of higher education institutions utilizing knowledge gained through institutional initiatives continues to identify new, better ways of serving students. This article sheds light on the known differences between institution types while recognizing the common goals of improving student persistence. The article further supports the need for additional research in this area to fully understand how the higher education community can best prepare and support students of all types, from all institutions, to reach their educational goals.

**Keywords:** Student progress, retention, college dropout, attrition, higher education, student progress, persistence

### Introduction

Student progress and retention are of utmost importance to institutions of higher education. Not only is an institution's reputation inherently tied to the success of its students; there are many financial implications tied to the progress and graduation of those who are recruited and ultimately enroll in their programs. With a lack of substantial improvement in attrition over the last several years and national concern about graduation rates (The White House, n.d.), a wealth of research has been conducted to further understand the factors that affect a student's likelihood of persisting from the start of one's program through the end.

Certainly, most researchers of higher education recognize student attrition as a metric to focus on and improve, but some educators downplay the negative consequences to students who fail to persist, arguing the net gain of acquisition of knowledge, experience with higher education, and personal growth. Others strongly oppose that sentiment and assert that "[l]eaving college without a degree is in most every case not a gain but a failure of the school and student" (Raisman, 2013, p. 8). Research has found that between 2001 and 2009, more

students borrowed money for college, and more of these borrowers are dropping out of college altogether (Nguyen, 2012, p. 2). Borrowers who drop out (all degree levels combined) were found to be unemployed at a rate 10% higher than borrowers who complete; differences also include lower median incomes and a greater likelihood to default on their loans (Nguyen, 2012, p. 4-5).

Financial implications of college dropout are broad, but so too are the potential psychological and emotional consequences of failure to complete one's degree. Smith (1982) further explored Campbell's dropout-psychological strain hypothesis that posits that even after two decades have passed after such an educational setback, there are still lingering negative effects on psychological well-being primarily due to the gap between expected and actual personal success. While the original dropout-psychological strain hypothesis did not distinguish significant differences in psychological consequences of failure to complete a degree, Smith's research found more support for Campbell's hypothesis among graduate than undergraduate dropouts. This is somewhat expected given that graduate students presumably have a much more specific, defined career path in mind than undergraduates who may be exploring career options as they seek to earn a bachelor's degree.

While attrition has obvious financial and psychological consequences to students, colleges and universities have the added reputational and financial pressure that comes with losing high numbers of students. Raisman (2013) conducted an analysis of over 1600 US institutions and found that almost \$16.5 billion was lost collectively for the 2010-2011 academic year, with the largest one-year loss for a single institution netting over \$100 million (p. 4). Interestingly, patterns did not emerge based on institution type, sector, or cost; rather, this is a shared phenomenon with institutions of higher education alike struggling to combat the financial and reputational burdens that come with student loss. In addition to institutional financial costs, the nation ends up feeling the financial pain. Research by the American Institutes for Research found that \$3.8 billion dollars in lost income, \$566 million in lost federal income taxes, and \$164 million in lost state income taxes can be attributed to students who began in 2002 as full-time bachelor degree seeking students but after six years had not graduated (Schneider & Yin, 2011).

The amount of revenue lost, coupled with 6-year graduation rates for for-profit institutions at 20.3%, public institutions at 31.4%, and private nonprofit institutions at 52.7% shines a very bright light on a gloomy picture, with some institutions' abilities to continue to attract new enrollments a serious concern (percentages represent first-time, full-time undergraduate students from 2004 cohort) (Ginder & Kelly-Reid, 2013). While new enrollments are essential to the livelihood of an institution, the cost associated with recruiting new students typically far exceeds that of retaining existing ones (Kara & DeShields, 2004). Thus, to retain students you must first attract them, and to attract them, you must continue to retain them. This cyclical relationship illustrates the added importance of proactively identifying and addressing the gaps and barriers in the student experience in order to improve and thrive within the growing, competitive higher education environment.

While institutions of higher education, without question, have unique characteristics that distinguish them from others, issues with retention provide common ground for exploration across institution and sector type. As educators and administrators continue to search for ways to better prepare, engage, motivate, and support students in their academic pursuits, it is critical

that researchers in this area continue to investigate ways to improve the student experience and, ultimately, graduation rates and career advancement opportunities.

### **Common Ground in Retention Issues**

Tinto (1975), with his introduction of a student integration model, is often credited with providing a springboard by which student retention was more widely discussed and approached through scientific inquiry. Unlike his predecessors, who focused predominantly on institutional and academic factors, Tinto (1975) emphasized the social aspects that are, in effect, layered on top of the educational experience. Though he was not the first to study persistence in higher education, his model laid the foundation for many other researchers to replicate, revise, and often refute the fundamentals of his theory (Demetriou & Schmitz-Sciborski, 2011).

In subsequent decades, in an effort to better understand the unique characteristics that predict whether or not a student retains, many researchers focused their investigations on specific populations, including those based on demographics (for example, traditional and non-traditional; domestic and international; first generation and non-first generation students), longevity with the institution (that is, first year compared with later years), discipline, degree level, and a number of other individual factors, such as financial status, continuous enrollment, motivation, level of engagement, and commitment that students bring to their educational experience. While differences do emerge across these variables, a high-level view of the literature suggests that student retention is still a common problem across all of these segments and that issues that relate to student success are more similar than dissimilar.

Furthermore, based on the current environment in higher education including changes in government policy and regulations, focus on institution type (for example, 2-year community colleges and 4-year undergraduate institutions; public and private institutions) ) has expanded in recent years to include distinctions among the for-profit and not-for-profit sectors. Much research shows that the similarities across all institution types and sectors outweigh the dissimilarities in terms of student risk factors and persistence trends; however, it is noteworthy that while these obstacles are often shared, the ways in which institutions approach resolving them sometimes differ. As such, we felt the need to further explore this area of retention research.

### **Common Ground in For-profit and Nonprofit Institutions**

With the struggling U.S. economy and increasing projections of jobs requiring more than a high school diploma, student retention is ever more important to colleges and universities. In fact, the President of the United States has issued a goal for America to have the highest proportion of college graduates in the world by the year 2020 (The White House, n.d.). Despite differences between for-profit and nonprofit institutions, some of which are outlined below, it is important to keep in mind that all U.S. institutions work toward a common goal of student success, resulting in a better prepared, adaptive, productive American workforce.

### **Student Demographics**

The for-profit sector seems to be serving a different student than public and private nonprofit institutions. In particular, Fall 2011 full-time undergraduate students enrolled at 4-year



for-profit institutions tended to be much older, with 71% being 25 years of age or older compared with 12-13% of public and private nonprofit institutions (Aud et al., 2013). Race/ethnicity is another area where the student types differ between for-profit and nonprofit institutions. At 4-year degree granting institutions in Fall 2011, public and private nonprofit institutions serve a student population where 64%-69% of students were white compared to for-profit institutions where only 50% were white (Aud et al., 2013). Additionally, for-profit institutions that granted post-baccalaureate degrees in Fall 2011 served a student group where white students made up 49% of the population, as compared to public institutions and private nonprofit institutions where 72% and 69% of the student population, respectively, was white (Aud et al., 2013).

Though less prevalent, differences also exist in male/female ratios. Specifically, in Fall 2011, counts of 4-year undergraduate female students at public and private nonprofit institutions made up between 54%-57% of enrollment while at for-profit institutions they made up 62% (Knapp, Kelly-Reid, & Ginder, 2012). These statistics go beyond simply outlining a difference in populations at these institutions; they give valuable insight into the types of institutions different students seek out and ultimately choose based on the ability to meet their needs. Acknowledging that there are different challenges to persistence based on age, ethnicity, and sex, one must be cautious when comparing retention rates across institution type.

### **Higher Education Landscape**

As the population of students seeking a post-secondary degree has shifted, so has the demand for other options outside of the traditional, land-based college experience. The inflexible options of a traditional, land-based institution simply will not work for many of today's learners who must work towards their educational goals while juggling many other responsibilities. Whether those responsibilities require flexibility in time, geography, or both, distance education programs (many of which fall within the for-profit sector, although more public and private nonprofit institutions are providing distance education) provide a valuable alternative to students advancing their knowledge, skills, and workforce marketability that in the past, had to be placed on hold (often indefinitely and sometimes permanently) in order to meet other life demands. For-profit, online institutions recognize their reach is virtually limitless, unbound by region or locale (Tierney & Hentschke, 2007), and the sector as a whole has been responsive to the adult student population with accelerated learning models, flexible class schedules, and career oriented programs (Kazis et al., 2007). In fact, in Fall 2012, approximately 2.1 million students were enrolled in for-profit colleges and universities across the U.S., accounting for nearly 10% of all student enrollments (Ginder & Kelly-Reid, 2013). Given that in the mid-1980s, the market share of U.S. for-profit schools was only 2%, this represents major growth in the sector (Bennett, Lucchesi, & Vedder, 2010) and a clear indication that for-profit schools often provide an educational opportunity that otherwise might not exist. The characteristics of this group are inherently different and the structure required to support them through successful completion of their programs is often unique.

### **Institutional Business Plan**

There are clear differences in for-profits and nonprofits in terms of how and why financial decisions are made within the organization; however, such differences are diminishing as financial pressures at many institutions require different operating models (see Ehrenberg

(2010) for a discussion of this related to faculty models). Tierney and Hentschke (2007) provided a comprehensive review of the unique differences between for-profit and nonprofit institutions, noting that traditional institutions “have little idea of the costs associated with teaching, research, and service” (p. 18), while for-profits are at the opposite end of that spectrum, with robust financial assessments of every aspect of the organization. This difference alone can change the operating culture of these institutions; for-profits, as compared to nonprofits, tend to focus on marketability of programs, as students are seen more as “consumers” of a product (education) that will help them to secure a job (or some other personal goal). That being said, for-profit and nonprofit institutions alike demand students meet certain expectations towards earning a degree. However, for-profits typically see that responsibility as more shared among administrators, faculty, and students, with greater accountability on the part of the institutions. Such a focus can help institutions to embrace disruptive innovation, experimenting more readily with new approaches and processes that will improve the student experience (Tierney & Hentschke, 2007).

Regardless of institution type or sector, colleges and universities nationwide struggle with student retention (Sternberg, 2013). It is quite common to find articles on higher education news sites that mention retention risk factors, solutions, and perspectives (Inside\_Higher Ed, 2013). Because differences in student populations and business models often exist among for-profit and nonprofit institutions, some have questioned the legitimacy and value of for-profit colleges and universities. However, research indicates that for-profit institutions achieve comparable (and often better) retention and graduation rates as compared to their traditional, non-profit counterparts, especially for those students who fall into high-risk categories based on multiple factors (Swail, 2009). Thus, educators must be cautious about perceived differences in quality based solely on institution type. In fact, research has shown that student characteristics are much more predictive than institutional factors in terms of attrition outcomes (Gramling, 2013; Reason, 2009). Therefore, despite general differences in student demographics, market share, and business models (that appear to be eroding over time), student characteristics still supersede any institutional differences in terms of impact on retention.

### **Future Directions**

Certainly, a great deal of the responsibility for student achievement falls squarely on the student. However, colleges and universities share that responsibility. Regardless of institution type or sector, it must provide a resource-rich, supportive environment for students to persist and accomplish their educational goals. Future research should focus on the specific academic and social factors that present barriers to student progress, with special attention paid to different student populations. Further, additional research is needed to better understand the factors that influence enrollment choice, as well as the circumstances around the decision to persist or drop out. Finally, it is our assertion that more emphasis should be placed on student progress and retention in academic presentations and publications. Such research is needed to advance our understanding of the factors related to persistence and retention that, in turn, can lead to innovative solutions that help students achieve the outcomes they desire.

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## A Different Viewpoint on Student Retention

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### Abstract

Although student retention, persistence, and graduation is a high priority for institutions and policymakers, graduation rates are not improving. Nowadays, more students from first-generation and low-income backgrounds have access to traditional higher education. However, an educational system that fails to prepare many students for higher education and the growing costs of attending college are making it more and more difficult for many students to persist and graduate. Ultimately, we might need to decide, on a policy basis, who we want to go to college, who we want to succeed, and who will pay for it.

**Keywords:** Student success, graduation rates, admissions, retention, persistence, dropout, graduation, financial costs, higher education

There is good and bad news regarding student success in US institutions of higher education. The good news is that student retention, persistence, and graduation is a high priority for institutions and policymakers. The level of dialogue about these issues is high and people are interested in finding better ways to help students succeed. The bad news is that we are not doing very well and graduation rates are not improving. I will not take the time to go through the retention and persistence data in this brief essay, as the data are well known and documented.

The reality is that we are letting more students from first-generation and low-income backgrounds into traditional higher education than ever before. This is the result, in significant part, of decades of federal lawmaking to ensure that these students are not disenfranchised and excluded from higher education. The GI Bill, the Pell Grant, subsidized and unsubsidized federal loan programs, and the Lifelong Learning and Hope Scholarship Tax Credits, to name a few, all provide avenues to help alleviate the financial burden of going to college.

My premise has always been that there are a multitude of reasons that students do not either access or succeed in higher education. The first is finance, which is an easy target because of the rapid rise of college costs. My analysis using College Board data found that tuition and fee charges have increased 23% after adjusting for inflation in the five-year period between 2008-09 and 2013-14 at four-year public institutions, 25% at two-year publics, and 11% at private, not-for-profit institutions (Baum & Ma, 2013). Using the same data, I also created a historical trend of tuition and fee charges for institutions (see Figure 1). Adjusted for

inflation, my extrapolation predicts that tuition and fees at four-year public institutions will double in 17 years, while tuition and fees at two-year publics and four-year privates will double in 23 and 27 years, respectively. To put this in perspective, the cost of tuition and fees at a public four-year university in 17 years will be akin to pulling out about \$18,000 today from one's pocket. And that's just for tuition and fees. Room and board will likely cost another \$18,000 to \$20,000 by that point. All told, the annual, in-state cost of attendance at a public four-year institution will run about \$38,000 in the early 2030s in today's dollars. Over a four-year period, this will total about \$150,000.

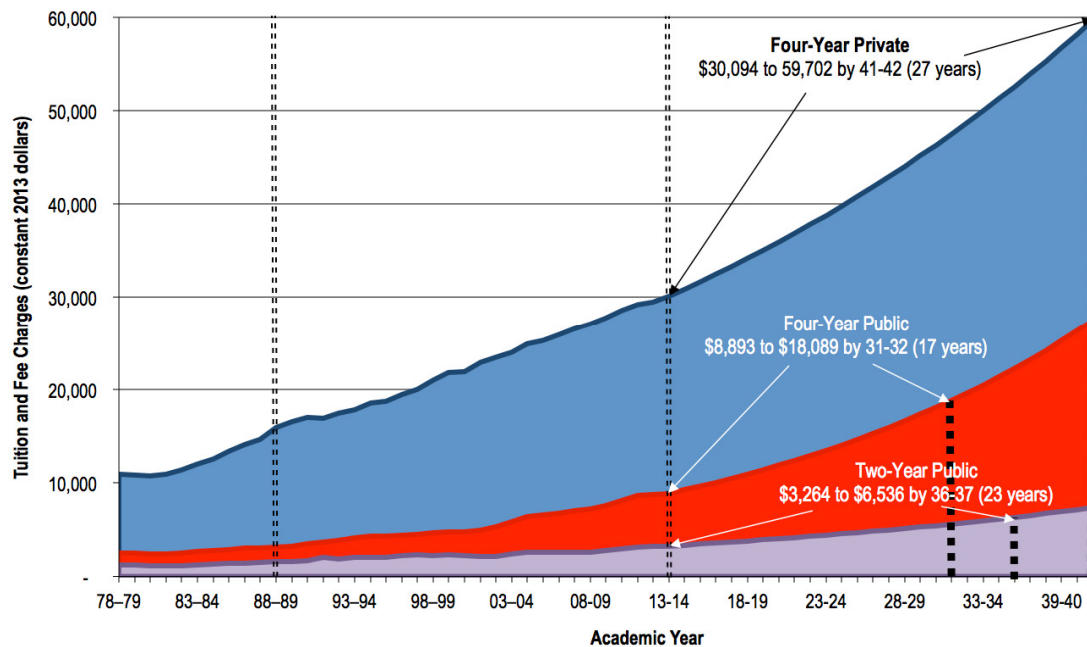


Figure 1. Tuition and fee history and forecast, 1978-79 to 2041-42, by sector (in 2013 constant dollars). Analysis by Author/Educational Policy Institute, 2014 ([www.educationalpolicy.org](http://www.educationalpolicy.org)). Historical Data from the College Board Trends in College Pricing 2013.

Note. Future trend used annual multiplier of 2.6% for private 4-year, 4.3% for public 4-year, and 3.1% for public 2-year colleges to arrive at increases above inflation, based on 25-year historical data.

Just imagine walking into a college financial aid office tomorrow morning and coming up with a \$150,000 plan to pay for your son's and daughter's college experience at an in-state, public four-year institution. We are not even talking about the four-year privates, which will run about \$70,000 a year in today's dollars, on average, and \$120,000 for the highest-cost colleges (in today's dollars per year). Those figures total to about \$300,000 for a four-year degree at the average private institutions and about half a million dollars for the elite, very selective institutions. Only a fraction of students attend these high-priced institutions, but the message taken from their pricing drives the above-the-fold news around the country (if not the world). It is no wonder that students self select themselves out of college long before they are even eligible for admissions: they don't think they have a chance.



Most students do not understand how much college costs or how they can finance it. The high cost of college is pushing us to the tipping point (or have we surpassed it?), where the return on investment on higher education has diminished to the point that it may not be a prudent avenue for some prospective students. A 1999 study by the National Center for Education Statistics (NCES) found that only 24% of grades 6-12 parents could estimate the tuition and fee costs of college, compared to just 15% of their children (Horn, Xianglei, & Chapman, 2003). And while 44% of middle school parents had obtained information on college or could estimate the costs, only 16% of middle school students did the same.

To be fair, understanding the labyrinth of higher education is a challenge for all, regardless of income or background. The equivocal and contradictory reports in the news do not make this information much clearer. Just recently *The New York Times* published a report about college still being worth it (Leonhardt, 2014), while *The Chronicle of Higher Education* showcased the lack of gainful employment of recent graduates (Supiano, 2014). The challenge is that many students self select themselves out of the college pipeline because they either do not believe they can afford it, do not feel they are prepared for it, or worse, simply feel they do not belong there (Hoxby & Turner, 2014; Swail, Cabrera, & Lee, 2004). As Laura Rendon once wrote, college dropout begins to happen in grade school (Rendon, 1997).

Regardless of these heavy financial burdens on college students, I believe the true primary reason that students do not prepare, apply, admit, and succeed in higher education is academic wherewithal. Students who take rigorous coursework are much more likely to finish a bachelor's degrees than others, regardless of ancillary issues such as financial need (Adelman, 1997). The rigorous course work, in effect, serves as a proxy for other important criterion, such as study skills, time management, and organizational skills (Burrus, Jackson, Holtzman, Roberts, & Mandigo, 2013; Kerka, 2007). Students need to know "how" to learn and how to manage their time. They must develop higher order thinking skills and be able to work in isolation and in groups. While many students dropout because of finances, much more dropout because they just don't have the academic-related skill-sets to succeed.

The challenges facing higher education institutions, especially open admissions institutions, is daunting. The deficiencies in student preparation and learning can be broad and vast. The idea that institutions can essentially fix 13 years of schooling through one bridge program, one semester of Freshman 101, or one supplemental course is mindblowing.

Remediation is an example of a concern for students and retention specialists. Data from the NCES illustrate that 21% of first-year undergraduates attending public four-year institutions and 24% at two-year public institutions (2007-08) enrolled in at least one remedial course (Sparks & Malkus, 2013), and the percentages increase for non-White students (Ross et al., (2012). The variation in remedial enrollment between open admissions and very selective admissions institutions is also large: 13% vs. 26%. Remediation does impact graduation rates. NCES data suggest an 8% graduation gap between remedial vs. non-remedial students at four-year public institutions (53% vs. 61%).<sup>1</sup>

<sup>1</sup> This analysis is by the author using the NCES QuickStats data tool. Analysis considered first time Beginning Postsecondary Students (BPS) in 2003-04 at a four-year public institution who either did not enroll in a remedial course their freshman year, by the six-year graduation rate in 2009. Interesting note: other non-profit organizations have suggested a much larger gap in performance between remedial students and non-remedial students (e.g, 58% vs. 17%, as reported by the Complete College America). However, the author was unable to substantiate these claims by any viable method and their source work was incomplete.

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The articles presented in this special issue of *Higher Learning Research Communications* discuss important issues such as prediction of dropout, frameworks for retaining students, and various strategies for addressing attrition, such as counseling, service learning, and academic support services. Given my thesis above, it is not to suggest that remediation, study skill training and time management, and many of the other strategies implored in this volume are not of utility. They clearly are. However, the philosophical question remains about how much we do for whom?

My prior research illustrated, with use of Beginning Postsecondary Student (BPS) data from the NCES, that students who have these attributes are much less likely to graduate from college:

- attend part-time,
- have a low GPA,
- are of non-traditional age (e.g., older),
- are non-White (with the exception of Asian),
- are first generation,
- are low income and/or independent,
- have a variety of risk factors (including having children, being single),
- delay entry to college,
- attend an HBCU or HSI,
- have lower levels of high school mathematics,
- attend more than one institution (although this can depend), and
- work more than 20 hours a week.

There are more. But these examples get at the crux of the issues that help determine whether a student will sink or swim in higher education. Some students have many of these attributes. Some only one or a few. The chart below illustrates that 66% of first time college students end up attaining a degree within six years, compared to 44% of students with at least one risk factor.<sup>2</sup> Those with multiple risk factors have a much lower change of postsecondary success. Only 34% of those with two or three risk factors, and 30% of those with four or more, graduated with a degree within 6 years.

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<sup>2</sup> Risk factors in this analysis of BPS data include: part-time enrollment, delaying entry into postsecondary education after high school, not having a regular high school diploma; having children, being a single parent, being financially independent of parents, working full time while enrolled.

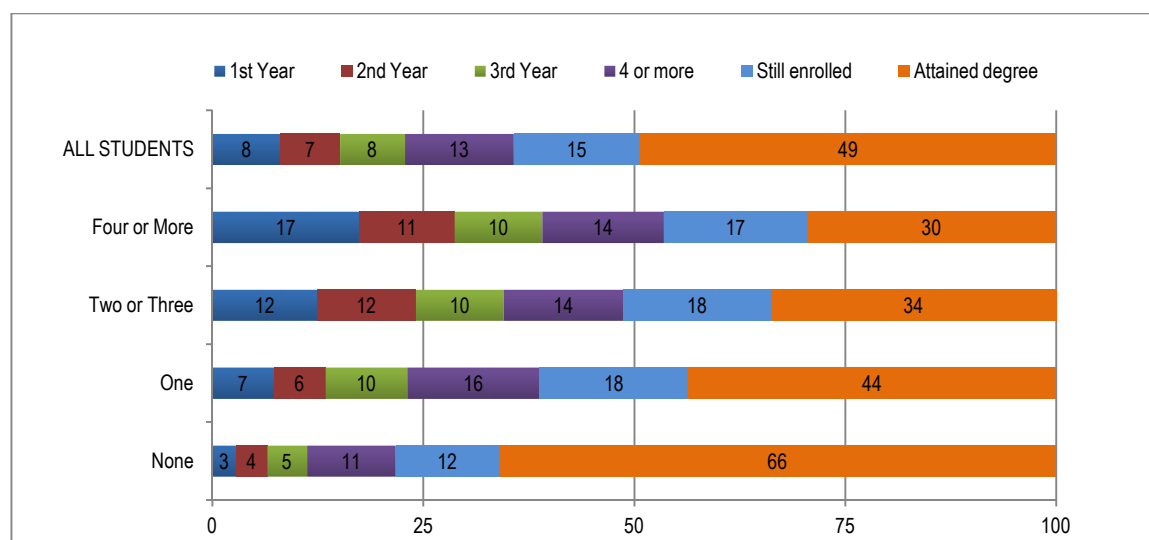


Figure 2. HLRC June Issue 2014, Author's analysis of Beginning Postsecondary Student (BPS) data for all first time postsecondary students, 2003-04, by 2009 (six years).

In the end, none of these should be used to deny access to college for an individual. That stated, somewhere along the continuum there is a line where students will not succeed. A line beyond where no matter what we do in higher education, we cannot fix the source challenges that face a particular student. The question is whether we want to know where that line is. With regard to public policy and public perception, it seems clear that no one currently wants to find that line. We seem completely content with the status quo and not dealing with the hard and difficult issue of drawing a line.

The reality is that our open system of education is costly. With regard to remediation alone, estimates suggest that the cost of current remediation practices is in the area of \$3.6 billion (Alliance for Excellent Education, 2011). I've alluded to the growing costs of higher education, especially with regard to the prices paid by students and parents. Are we at the tipping point of college opportunity?

In the end, what does this all mean? Given this somewhat dreadful information I have showcased, and beyond the policy implications that are handed down from states and the federal government upon which an institution has little or no control, what does an institution do about student access and success?

For starters, I believe the first rule of conduct for an institution is to define for themselves what success looks like and how that success is manifested in a student or cohort at their institution. It is critically important for institutions to understand the nature of success, not just from an academic perspective, but from a social, non-cognitive perspective. In the end, what is it that makes students success at College XYZ? Every institution can run internal multiple regression analyses to provide details on the attributes of graduates compared to dropouts and transfers. Academic data on progress can be merged with social data from institutional surveys to provide such information as study habits, use of time, work, comfortability, and yes, even happiness, to see how those link with academic outcomes.

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This information can be used in several ways. First, it can be used to help instructional faculty better understand their students. Second, instructors should have some diagnostic tool to gauge when a student is having academic or other challenges. Third, academic advisors and counselors should absolutely use these data to help describe to freshman students what success looks like. In the workshops that I conduct, I suggest that advisors have prepared a one-page sheet to give to their students that lists that student's various academic and non-academic scores/preferences/habits (from institutional surveys) in one column compared with data of successful students from their college in a second column. Success should be visual and put in perspective. I think it is of great merit to illustrate to a student that, if they study X hours per week, use Y institutional support services, and work with their friends and peers, that they, too, can succeed. Students need roadmaps. Give them one.

The second rule of conduct is to be real about admissions. When an institution accepts the registration of a student, they are, in effect, entering a moral, ethical, and legal contract with the student to do whatever they can to help that student succeed. They need to ensure that the student gets the support he or she needs, which means that the institution must have insight into those needs early and often. Conversely, if the institution is not able, willing, or interested in doing so, then they should do the right thing and not admit that student. This sounds harsh, but I see this play out countless times at institutions. After the student is admitted, many aspects of the institution, besides basic instruction, are provided in a distant, non-invasive manner when they should be both intrusive and invasive. In this data age, it is relatively easy for the institution to diagnose the positives and negatives of a student at Day 1. It is up to the institution to identify these issues and provide assistance and not simply expect that students will find assistance on their own. At-risk students, who often are first generation and low-income, are typically the last people to ask for help. Institutions can't just "phone in" this type of support. They have to meet students where they are.

If you travel the similar circles as me, it is rare when I meet someone working at an institution who does not want their students to succeed. But sometimes we do some things that hinder rather than help students. Part of student success may be steering students away from your institution or department. If he or she does not belong there, do not enroll them, do not take their money, and do not burden them with loans that can never pay off. Or, just as bad or worse, the growing burden being placed on parents who are taking out PLUS loans or remortgaging their house to pay for college.

Perhaps one of the most immoral things we can do is to admit a student who seriously does not have the skills to stay in the game. Back to my original thesis, I do not agree with those that say that all students can learn and succeed in college and we should admit anyone who wants that opportunity. We should not. In consideration of the both financial and opportunity costs, we should be more mindful of the moral authority of accepting students who are not likely to succeed. Statistically, most students who apply to college can succeed. But there is also a large group of students that are ill-prepared to succeed at this level. Some students are not effectively motivated to do the work they need to do. Some just do not have the requisite skills to take on the "higher" learning. In many cases, these issues weren't their fault. They are simply outcomes of a system that poorly prepared them for postsecondary education, and in many cases, the world of work. But, nonetheless, here they are at our doorstep. Society has told them that success is difficult without a college degree. This, too, is an injustice, but that is the message we send daily to students. Just because they show up does not mean we can

encourage and support them to finish. For some level of student success, we do better by steering them to achieve their goals somewhere else. Somewhere cheaper; somewhere more appropriate to their interests. But not here.

We are fortunate to be served by a fairly well-articulated system of higher education. However, we have not been similarly well served by the infighting of our tiers. To be fair, we created this problem by forcing the community colleges and universities to vie competitively for public funding separately, so it should not be that shocking that this evolved into an us vs. them dialogue. Instead of playing a game of one-upmanship, we are better served by harnessing our system and using it in series, much the way the original California Master Plan envisioned the articulation between their community colleges and two university levels. Yes, there are clearly equity issues involved in this, but we can't talk about all issues in this one, very small, very trivial article.

In fact, we may be able to serve our at-risk youth better in community colleges that teach better, in many ways, than in universities. In 2001, the Tennessee Higher Education Commission moved its remedial coursework to the community college in order to save money but also to keep higher education for "higher education," and by 2012, 22 states had either eliminated funding or made other moves to relegate remedial class work to the community college system (Huse, Wright, Clark, & Hacker, 2005; Pant, 2012). Some saw this as a knock against college access. In reality, it makes much more sense to let students who are on the academic cusp experiment at a much lower cost afforded by community colleges; institutions that are often in their own communities, that also reduce the extra costs associated with room and board. Virginia, for example, guarantees transfer to all state institutions, including the flagship University of Virginia, Virginia Tech, and the College of William & Mary, to students who complete an associate's degree at a specified academic level. This gives more breathing room to students and also significantly reduces their costs during the first two years of their articulated four-year program. In the end, these students graduate with the parchment of the university.

Ultimately, we need to decide, on a policy basis, who we want to go to college, who we want to succeed, and who will pay for it. Without delving more into the much-discussed issue of college costs, the amount carried by students and parents will continue to grow, as will the costs borne by states. The costs associated with sending more students to college is not trivial for our society. Another paper can discuss the philosophy of education and these other important questions. But for the institution, it is critical to understand student success and what to do about it. It isn't about saving all students, but it is about changing the culture of an institution to do what can be done to all students that are admitted. If they come, they should be served with the highest regard for the highest reward.

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## Best Practices in Doctoral Retention: Mentoring

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### Abstract

Numerous factors contribute to a nearly 50% rate of attrition among doctoral candidates internationally. To address high attrition, institutions of higher learning are closely evaluating student and faculty mentoring programs. Beyond concerns about student drop-out rates, doctoral education allows little time for planning and consideration regarding post-graduation activities; therefore, doctoral graduates may not possess a clear direction after graduation. Some doctoral graduates also have difficulty transitioning from an academic environment to the professional world. Retention initiatives, graduation rates, and persistence levels are now among the areas of interest being considered and implemented throughout academia. To address these concerns, a new student–and faculty–centered approach toward mentoring is needed for increased retention in doctoral programs and success after graduation. This critical literature review outlines best practices in doctoral retention and the successful approach of one university to improve graduation success by providing effective mentorship for faculty and students alike.

**Keywords:** Doctoral mentoring, retention, attrition, doctoral programs, doctoral graduation

### Introduction

Retention, graduation, and persistence in higher education continue to be topics of interest within academia (Linden, Ohlin, & Brodin, 2013). In fact, 40 to 60% of all doctoral students do not persist to graduation (Cochran, Campbell, Baker, & Leeds, 2014, p. 29). Of the students who do persist in a doctoral program, 41% complete their degree program within 7 years, while 57% take up to 10 years to complete their degree (Ampaw & Jaeger, 2011, p. 640). According to the Council of Graduate Schools (as cited in Ampaw & Jaeger, 2011), nationwide databases are not maintained on attrition rates of doctoral students; records are only kept for those who graduate. Furthermore, retention of students in distance learning programs continues to be a concern for institutions, even those with numerous retention strategies already in place (Leeds, Campbell, Baker, Ali, Brawley, & Crisp, 2013).

The purpose of this comprehensive literature review is to outline best practices in doctoral mentoring that can be utilized in mentoring programs across higher education institutions. A literature review requires a critical analysis of the literature in which the research is examined for validity and relevance (Kowalczyk & Truluck, 2013). The analysis also ensures accurate conclusions can be used to inform professional practice (Kowalczyk & Truluck, 2013).

This research represents a key area of interest in the retention literature, as institutions continue to search for ways to better support students during their doctoral programs and post-graduation. Key phrases and words used in the search and focusing on mentoring resulted in over 20,000 sources. The search was narrowed to include only doctoral study and mentoring. Research questions of interest were: Why do high attrition rates exist for doctoral students? What are the barriers to retention? What are the benefits of doctoral mentoring? What programs do institutions have in place to reduce attrition? Journals with specific focus on doctoral retention and mentoring included the *International Journal of Doctoral Studies*, *Journal of Higher Education*, *Research in Higher Education*, and *Innovative Higher Education*.

One of the root causes of lack of persistence among doctoral students is an absence of effective faculty mentoring in institutions of higher education (The 7<sup>th</sup> International Conference, 2012). Evidence has shown a link between faculty retention and student achievement (Linden et al., 2013). Linden et al. (2013) discovered that when faculty members are not trained to mentor and coach doctoral students, they revert to the role of supervision, focusing on tasks and roles rather than the personal learning of the student. The focus of this literature review is on distance learning relationships between faculty and doctoral students, regarding retention, persistence, and mentoring models.

## Background

Attrition rates for doctoral students have been reported to be as high as 50% (Ali & Kohun, 2006; Girves & Wemmerus, 1998; Holmes, Robinson, & Seay, 2010; Pyhalto, Toom, Stubb, & Lonka, 2012; West, Gokalp, Pena, Fischer, & Gupton, 2011). Institutions are focusing on improving attrition and retention rates by offering financial support, professional development, and mentoring programs (Holley & Caldwell, 2012). A recurring theme in the literature is doctoral students feel a sense of isolation, especially in distance learning programs (Ali & Kohun, 2006; Holmes et al., 2010; Pyhalto et al., 2012). Reported reasons for attrition include personal issues, the nature of the doctoral program, financial considerations, emotional stress, and family obligations (Gregoric & Wilson, 2012; Hadjoannou, Shelton, Fu, & Dhanarattigannon, 2007; Holmes et al., 2010; Pyhalto et al., 2012; Stevens, Emil, & Yamashita, 2010; Thien & Beach, 2010; West et al., 2011). Students are often not prepared for the step from student to independent scholar, which is necessary for doctoral success (Lovitts, 2009).

The most important relationship for a doctoral student is with an advisor, faculty, or chairperson (Barnes & Austin, 2009; Holley & Caldwell, 2012; Ku, Lahman, Yeh, & Cheng, 2008). However, an advisor, faculty, or chairperson who is a good instructor may not be a good mentor (Mullen, 2007). The relationship between the student and advisor or chairperson may be problematic, resulting in the student turning to another faculty member or student for support, and disrupting the mentoring process (Barnes & Austin, 2009; Crisp & Cruz, 2009; Grant-Vallone & Ensher, 2000; Hadjoannou et al., 2007; Holmes et al., 2010; Mullen, 2011; Sugimoto, 2012; West et al., 2011). Mentors and students must have mutual respect in addition to similar

goals and interests (Mullen, 2007). Mullen (2007) surmised that structural and institutional deficiencies could contribute to the failure of traditional doctoral mentor programs involving exclusive faculty and student interactions. Girves and Wemmerus (1988) suggested there is little information presented on the aspects associated with graduate student retention, degree progress, or those motives contributing to some students succeeding in graduate school while others drop out.

### **Barriers to Retention**

Unwavering dedication to doctoral completion is a necessity for every doctoral candidate (Hadijoannou et al., 2007). Attrition refers to doctoral students dropping out of the program prior to finishing their degrees (Ali & Kohun, 2006). Research indicated that doctoral student attrition is well documented, but there is little information on what organizational leaders at institutions of higher education are doing to address the issue (Ali & Kohun, 2006). Factors including motivation and self-efficacy were identified as problems related to doctoral student success along with feelings of isolation, significant time on task requirements, and the nature and design of the doctoral program (Ali & Kohun, 2006; Pyhalto et al., 2012). Although there is research on how to attract doctoral students, there has been no research on how to retain these candidates once acquired (Hadijoannou et al., 2007).

### **Confusion on Program Requirements**

Doctoral students believe they are isolated because of confusion about the program (Ali & Kohun, 2006). Simple confusion can manifest into feeling overwhelmed, resulting in students falling behind on goal progress and benchmarks. Pyhalto et al. (2012) surveyed doctoral students to explore problematic factors contributing to attrition. Many of the students attributed general doctoral work requirements and skill sets as a problem (Pyhalto et al., 2012). Typical required skill sets included maintaining motivation, self-efficacy beliefs, and time management (Pyhalto et al., 2012).

Students reported that upon entering a doctoral program, the materials are confusing and do not provide adequate information about finishing the degree (Ali & Kohun, 2006). The doctoral program is unlike any program students have experienced, and requires more intellectual challenges, psychological demands, and independent research (Ali & Kohun, 2006; Hadijoannou et al., 2007). This has not changed over the years. The first stage of a doctoral program is coursework, in which students feel comfortable and knowledgeable (West et al., 2011) based on their experience in bachelors' and masters' degree programs. The second stage, which includes the self-directed dissertation development and research phases, is unfamiliar territory for most doctoral students (West et al., 2011). It is at this stage in the process that students are expected to become independent scholars.

Student confusion about the doctoral process or requirements can cause communication issues. Communication breakdowns can occur among and between students and faculty alike (Ali & Kohun, 2006). In the dissertation phase, students often work alone with only occasional interaction with their advisor or faculty member, and many schools do not promote interaction among students (Ali & Kohun, 2006). This isolation can lead to self-doubt about student progress and the ability to finish the dissertation (Ali & Kohun, 2006). Students may find themselves distressed during a doctoral program, which can cause them to withdraw from the

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academic community (Pyhalto et al., 2012). If the faculty member leaves the program, a positive faculty and student relationship can be compromised. In this case, the student is left without an advisor and may experience feelings of abandonment (Ford & Vaughn, 2011).

### **Time Requirements**

Doctoral students have reported time management is important to their success (Martinez, Ordu, Della Sala, & McFarlane, 2013; McAlpine, Jazvac-Martek, & Hopwood, 2009). Martinez et al. (2013) found that four out of five doctoral students identified time management as the greatest challenge in their doctoral program. Students indicated their priorities were determined and managed on a day-to-day basis, not allowing for planned time management (Martinez et al., 2013; McAlpine et al., 2009). Transition from being a new doctor to integrating oneself back into the workforce also requires significant time and planning (West et al, 2011). Although many students do not leave the workforce, adjustments after graduation are still needed.

West et al. (2011) research indicated that of the participants interviewed, 60% found time management and balancing life obligations challenging for doctoral students. These students experienced obstacles, including working full time, caring for a family member, childcare demands, and financial strains. Ford and Vaughn (2011) indicated students face family conflicts because of the hours needed to complete the doctoral program. Doctoral experience has left the authors of this literature review with the belief that the successful doctoral graduate should recognize the delicate balance between personal and professional responsibilities, and the demands of completing an education at the highest level of scholarship.

### **Nature and Design of Doctoral Program**

A student's interest in a doctoral program can decrease as the time lengthens from the onset of the program to graduation, causing disillusionment in academic studies (Kaplan, 2012). In some universities, disillusion symptoms are addressed through a more rigorous program designed to offer structure and guidance throughout the students' enrollment, with preparation for post-graduation life (Kaplan, 2012). Nurmi and Salmela-Aro (2002) suggested that by developing a doctoral program focused on attainable goals, with regular monitoring and mid-course adjustments as appropriate, students realize greater progress, while depressive symptoms decrease. Smith (2012) also contributed that the use of a journal to log frustrations and challenges is an important tool that can be used to decrease depressive symptoms and keep students motivated and on schedule.

By establishing the academic career as a journey, and realizing that over time the student will continue to develop individually and professionally, many of the symptoms related to dissatisfaction disappear (Heinrich, 2005). Post-graduate, co-authorship also contributes to the transition from student to graduate professional (Pinheiro, Melkers, & Youtie, 2014). According to Thien and Beach (2010), to successfully transition from student to professional, a university-developed mentoring program that pairs professors with students throughout the doctoral process is key to success. Professors can use methods of confidence building, and engage graduates with co-publishing activities to assist with the transition (Thien & Beach, 2010).

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## Persistence

The transition from doctoral student to post-doctoral scholar and professional can be challenging. While the literature supports the idea of institutions focusing on early course efforts to ensure doctoral student retention (Crisp & Cruz, 2009), the need for more emphasis on those students with all but dissertation (ABD) status is crucial. The challenges of research activities and ultimately graduation can fall heavily on a student who is unprepared for the necessities of objective achievement (Hadijoannou et al., 2007). This period in one's life may seem overwhelming, although it does not have to be with the assistance of a mentor and university program that shepherds students through acquisition of basic organizational skills, knowledge, and experience.

Throughout the doctoral process, it is possible to obtain organizational skills, knowledge, and experience through networking, sharing experiences, creating a defined mentoring path, and co-authoring publication and research (Holley & Caldwell, 2012). Below is a review of strategies regarding self-development, which can aid the transition from doctoral student to post-doctoral scholar and working professional.

## Mentoring

Educators have a key role to assist in the development and preparation for the transition from student to doctoral professional after graduation (Heinrich, 2005). The transition post-degree was easier for those students who benefited from an enhanced mentoring experience (Heinrich, 2005). The ability of the mentor to build a mentee-focused learning community incorporating both skill development and motivating factors is essential.

Student demographics also play a role in mentoring. Holley and Caldwell (2012) indicated that older students do not feel they need mentoring. Minority students struggle because of the shortage of minority faculty who can serve as an advisor (Holley & Caldwell, 2012). Rose (2005) indicated that female doctoral students seek mentoring relationships with faculty more than male doctoral students.

A doctoral student participating in research can improve their research skills through co-authorship and presentation opportunities, building knowledge production along the way (Pineiro et al., 2014). Mentoring can assist with self-development as indicated by career support, job satisfaction, salary, successful collaboration with peers, use of different methods of speaking and writing in discipline-specific ways, and embracing post-graduate publication opportunities (Pineiro et al., 2014).

## Mentoring Doctoral Students toward Publication

Preparing doctoral students for publication includes more than merely providing advice on approaches and resolutions for writing research (Thien & Beach, 2010). It is important the student and professor share a common interest of topic so that both mutually engage in the collaboration work (Thien & Beach, 2010). Students find this relationship highly beneficial in improving research and writing skills (Thien & Beach, 2010). Professor and student can collaborate by co-publishing research (Heinrich, 2005; Pineiro et al., 2014; Thien & Beach, 2010). While preparing journal articles, Professor Beach would not only provide revisions to

Thien, but also would often share his perceptions on the biases and detail impressions of the potential reviewers and editors involving the acceptance into journal publication (Thien & Beach, 2010). This assessment provided three summaries from various authors on different topics of methods, in which self-development through the doctoral process can encourage a smooth transition from student to post-doctoral scholar and working professional.

Heinrich (2005) shared data that followed 16 post-doctoral students for five years after graduation. Heinrich explained that self-development through networking, rekindling relationships, defining a new path, and finding one's identity can provide a smooth transition. Pinheiro et al. (2014) examined the role of student publication and co-authorship and how this activity can enhance future career productivity. Thien and Beach (2010) shared their student and professor mentoring relationship by describing an enhanced student authorship leading to future career and research publication opportunities. There are numerous strategies for evolving from student to professional that can be adapted through enhanced self-development knowledge (Thien & Beach, 2010).

### **Benefits of Mentoring**

Mentoring is an ongoing helpful relationship (Mullen, 2007; Peterson, 1999; Webb, Wangmo, Ewen, Teaster, & Hatch, 2009; West, et al., 2011). Mentoring focuses on growth and accomplishment of the individual and includes a broad means of support and role modeling (Crisp & Cruz, 2009). Grant-Vallone and Ensher (2000) indicated that traditional mentoring led to graduate student success and is an important factor in graduate education. Doctoral student success has been attributed to a strong mentoring program (Grant-Vallone & Ensher, 2000; Holley & Caldwell, 2012). Research indicated that mentoring programs could promote interaction and socialization between the students and the educational institution and possibly reduce attrition rates (Ali & Kohun, 2006; Barnes & Austin, 2009; Holley & Caldwell, 2012). Webb et al. (2009) surmised that mentoring has many benefits, including helping students with critical thinking and assisting in making personal and academic decisions. There is evidence that there was a positive correlation between the students' career certainty and their mentorship relationship, including less conflict, and a greater commitment to their profession (Lunsford, 2011; Mullen, 2011; Nimer, 2009; Peterson, 1999).

### **Peer Mentoring**

There is a lack of literature on the effectiveness of peer mentoring with doctoral students (Grant-Vallone & Ensher, 2000; Hadijoannou et al., 2007). Peer-mentoring programs can be formal, where the institution assigns an experienced doctoral student as a mentor, or informal, in which students come together because of interests or friendship (Holley & Caldwell, 2012). Gregoric and Wilson (2012) followed two doctoral students who developed a mentoring relationship formed by comparable research topics. The students agreed the relationship helped them cope with the challenges of the doctoral program. Hadijoannou et al. (2007) wrote about doctoral students who formed their own peer support group to discuss requirements, confusion, and success strategies. Student-led groups play an important role in enhancing doctorate scholars. The peer-mentoring experience offered instructional, writing, and emotional support (Hadijoannou et al., 2007). However, Grant-Vallone and Enser (2000) reported that although peer mentoring provided support for doctoral studies, it did not reduce stress levels.



Mullen (2011) suggested that mentoring at the group level heightens students' motivation to learn and succeed. Pilbeam, Lloyd-Jones, and Denyer (2013) concluded there is a value in student networking that provides an environment conducive to learning, team building, social interactions, and ultimately doctoral success. Peer mentoring also promotes shared learning (Holley & Caldwell, 2012).

## Faculty Mentoring

The terms advisor and mentor are not always interchangeable. Barnes and Austin (2009) reported that an advisor acts in an official capacity, but a mentor has deeper relationships. While an advisor identifies the requirements and goals for students, a mentor serves as a coach throughout the multidimensional process of doctoral education success (Mullen, 2007). A mentor can be considered a doctoral coach or fulfill a coaching role with the mentee. However, at times, faculty and students do not make significant connections, or the parties do not understand the importance of their relationship role with each other (Mullen, 2007). There should be careful consideration when choosing faculty to serve as an advisor or mentor, with role objectives sensibly matched to faculty capacity (Holley & Caldwell, 2012).

Mentoring faculty need to teach beyond the classroom (Mullen, 2007). West et al. (2011) research indicated that students did not feel there was good communication with their advisors. The students believed that if they did not take the initiative to call their advisor, they would not hear from them at all (West et al., 2011). Some universities use a dissertation model that assembles students into smaller dissertation learning units based on specific subject matter, while other university programs attribute much of the dissertation learning and success to well-facilitated dissertation learning communities that encompass a broader academic scale. Communication and honest feedback are two important responsibilities of a mentor (Rose, 2005). The mentor needs to recognize when a student has delayed his or her work and provide support to motivate the student to continue with their research (Barnes & Austin, 2009). Mentors also need to encourage students to be active in their learning community, especially by keeping an open line of communication between the advisor and student (Ford & Vaughn, 2011). An important factor in successful dissertation completion is the relationship between the student and advisor (Hadijoannou et al., 2007; West et al., 2011).

In a mixed-method study of psychosocial and developmental theory, Lunsford (2011) gathered data from participants who took part in a formal faculty-mentoring program. Results indicated some students did not feel appropriately mentored because of a change in major, lack of connection with the mentor, or having a mentor outside their program of study (Lunsford, 2011). However, the results also indicated there was a positive correlation between the students' career certainty and their mentorship relationship (Lunsford, 2011).

Qualities of a successful mentor included vision, drive, energy, and a commitment to the student and program (Mullen, 2007). Other roles included a source of information, advocate, role model, and socializer (Barnes & Austin, 2009). Mullen (2007) indicated that potential successful mentors may not engage as a doctoral mentor because there is little institutional support. West et al. (2011) offered three types of support a faculty advisor can provide including coaching, psychosocial guidance, and networking assistance. Ford and Vaughn (2011) reported that trust is important in the mentor and student relationship.

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## Cohorts

Not only is the role of the mentor important, but so too is the student's place of relationship within a larger learning community or cohort. Research showed that students who start the doctoral program as a group stayed together as a group and had a better graduation success rate (Ali & Kohun, 2008; Holmes et al., 2010; Nimer, 2009). The cohort model encouraged interaction with doctoral students, which led to providing assistance, exchanging information, sharing feedback, challenging each other, and promoting leadership skills (Holmes et al., 2011). West et al. (2011) found that students in a cohort are more successful than non-cohort students.

Dissertation cohorts can function formally or informally (Mullen, 2007). The cohort model encouraged peer-to-peer learning with the benefit of the faculty's expertise (Mullen, 2007). The cohort model is not widely used because of a lack of institutional support (Mullen, 2007). Virtual connections can help faculty and their cohort be connected outside the classroom (Ford & Vaughn, 2011). Ford and Vaughn (2011) reported that cohorts could have a negative effect on the doctoral student by forcing group conformity.

## Mentoring Models

Mullen (2007) reported that the traditional doctoral mentoring model of faculty and student exclusive interaction has not changed and questioned its quality in today's doctoral programs. There are challenges to designing a doctoral mentoring program (Holley & Caldwell, 2012; Holmes et al., 2010). Crisp and Cruz (2009) argued that despite numerous research studies on mentoring, there lacks a developed mentoring process for doctoral students. Ali and Kohun (2006) also indicated that isolation has not been addressed in the design of doctoral programs.

In a qualitative study, Ku et al. (2008) explored a mentoring group who mentored international doctoral students for academia. Mentoring international students is challenging because students have different learning styles and language barriers. International professors in the United States are effective ambassadors and can facilitate research with overseas organizations. As evidenced, research indicated that mentoring these international students increased student success (Ku et al., 2008). Ku et al. concluded there is a need for academic support mechanisms for graduate students, specifically international students.

Mentoring models or best practices should include co-mentoring, cohort learning, tele-mentoring, and e-mentoring (Mullen, 2007). The authors of this literature review experienced doctoral success by participating in a learning community cohort under the leadership of a mentor who built a sense of community among the group. In the learning community, students can benefit from an environment that provides resources and instruction, supports learning, engages students and relationship building between members of the learning community, and affords students the opportunity to build and share their experiences, lessons learned, and wisdom with one another.

Institution rewards can encourage faculty mentors to promote good work habits and create meaningful relationships with doctoral students (Barnes & Austin, 2009; Mullen, 2007). Annual recognition of successful mentors will help faculty feel appreciated (Mullen, 2007).

However, the most significant reward is often observed in the process to assist doctoral students as they grow, mature, and transition into scholars and ultimately cross the graduation platform. A successful doctoral process is often characterized with incremental evidence of student achievement by those who can demonstrate learning and maturity manifest in sharing their skills with others throughout the journey.

### **Scholars-in-the-Making Training Model**

In order for a doctoral program to successfully transition to a model of intensive mentoring and cohort interactions, university leaders need to ensure the proper infrastructures are in place to provide the most successful environment (Black, 2012). Research indicated that doctoral mentoring programs in which the instructor provided additional time for students outside of the classroom environment to meet student needs, led to successful student learning (Yob & Crawford, 2012). Teleconferencing is of major importance for weekly interactions between faculty mentors and student mentees in an online environment. A commitment from the mentor to facilitate weekly group meetings and individual telephone calls to monitor success is necessary. Additionally, there should be access to dissertation editors who are familiar with the university's required writing standards, along with the doctoral committee's commitment to reduce turnaround times for reviews of drafts to assist the student in moving through the process more rapidly (Black, 2012).

Research by Ewing, Mathieson, Alexander, and Leafman (2012) indicated that a doctoral program with intense facilitation and dialogue can increase the graduation rate to 73% (p. 40). Weekly communication sessions to highlight the success and shared challenges of students should be encouraged. Students need to feel comfortable to share all aspects of their journey with peers sufficient to bridge the learning among the entire group. The mentor should encourage this type of sharing among the students. Additionally, the mentor should make certain to celebrate the accomplishments of individual group members, as well as acknowledging the success of the group based on collective achievements (Espino, Munoz, & Kiyama, 2010).

Creating a quality learning community online is difficult and requires committed instructors providing interpersonal contact, communication intimacy, and immediacy for student success (Lim, Dannels, & Watkins, 2008). Likewise, faculty tasked with leading doctoral candidates must be connected to the university's core mission, while embracing this highest level of scholarship, which can be a tenuous and difficult task considering the increasing numbers of adjunct faculty used in university doctoral programs. This challenge calls for transformational leadership on the part of program directors to motivate faculty to be the best mentors possible, and provide students with the resources, guidance, and support necessary to promote doctoral study success.

### **Conclusion**

Educators want all doctoral students to graduate; however, those who have succeeded on this journey understand the struggles, isolation, and hard work involved. That acknowledged, not everyone graduates. Doctoral-level work is the highest form of scholarship and begins with a significant demand for charting a new personal course or life-path, which means a steep learning curve and demonstration of scholarly skills. The journey is often lonely and isolating

because, by the nature of doctoral education, it is a personal journey and the ultimate demonstration of skills, which tasks the budding scholar with an increased requirement for rigor beyond any previous level of performance experienced.

The student's experience within the doctoral journey matters to their success. Doctoral programs that provide for or allow student cohort and learning community relationships or supported networks, along with a mentor that can support a learning community experience that provides access to skill development activities and associated resources, can lead to success and ultimately doctoral graduation. Unlike traditional classroom education models, the online doctoral student is not charged with learning and demonstrating the objectives of customary subject curriculum. Instead, the student often needs to identify and learn new ways of interacting with personal, professional, and educational outcomes that demand a more holistic process of shepherding the individual education process.

A key factor influencing doctoral student retention and success is effective faculty mentorship. In particular, the design of a mentoring and faculty training program to increase retention and provide for success after graduation is important. The focus of this literature review has important implications for student success and would add to our understanding of how to help doctoral students successfully complete their doctoral programs and transition to the next stage of utilizing their degrees beyond graduation. This article will add to the literature in terms of understanding the impact that doctoral mentoring could have on student success, both during their programs and post-graduation.

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### Dedication

This article is dedicated to the nine of ten students who were once identified as “high risk” and are now referred to as Doctor. Special acknowledgment is made to Dr. Smith, Dr. Land, Dr. Turner, and other Walden University DBA faculty members who always believed in our eventual success.



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## **Keeping Students in by Sending Them out: Retention and Service-Learning**

### **Abstract**

This review of recent literature examines the research on the impact of service-learning on student retention. The theoretical framework of the review draws on both Tinto's model of student attrition and Knowles's theory of adult learning, which together suggest that academic and social integration, active participation and engagement in learning, and application and relevancy of the subject-matter under study are key factors in student success. The role of these factors has been confirmed in a growing body of research around learning experiences in general and, as this review shows, particularly in service-learning experiences. Suggestions are made for how future research might expand and critically deepen this evidence and offers some implications for service-learning as a means of improving student retention.

**Keywords:** retention, service-learning, integration, engagement, relevance

### **Introduction**

In the United States, the numbers of higher education students who drop-out of college or university and fail to graduate successfully have been alarming. The most recent data from the U.S. Department of Education, National Center for Educational Statistics indicate that in Bachelors or equivalent degree programs, only 38.1% of students who enrolled in 2004 were able to graduate within normal completion times; that is, by 2008 (2013, p. 12). In nonprofit private institutions, the completion rates were comparatively better at 52.7%, but in public universities the rate dropped to 31.4%, and in for-profit institutions the rate was as low as 20.3%. Within 150% of normal program completion times, that is by 2010, the overall rate of completion for this cohort for all types of institutions had risen to just over half at 58.4% and in twice the normal program completion time, that is by 2012, it had risen to only 60.9%. Figures for two-year certificate programs were even more alarming, with 21.2% completing in normal program time. The high attrition rates represent a loss of revenue for the institutions that enrolled the students, but of greater concern is the loss in human capital and development these figures suggest.

In the light of these statistics, student retention has been an issue of concern for colleges and universities across the USA for several decades and numerous initiatives have been undertaken to stem the flow of exiting students. Service-learning courses have been one such initiative and claims have been made about the positive impact it has on student retention. Service-learning is a pedagogical approach that connects students with the real needs in the

community, where they can apply what they are learning in class and bring what they have learned from that experience back to the classroom, so that theory is applied to practice, and practice in turn enriches their knowledge and skills.

This review of the literature over the past decade explores the research findings on the connection between service-learning and student retention, and what some of the practical implications around service-learning might be that can bring about these effects. The review begins with a brief description of service-learning and its theoretical roots. This is followed by an outline of the theoretical framework on which the review is built, a framework which also informs much of the research that explores the connection between participation in service-learning experiences and retention. The review of the actual research begins with an overview of some of the most recent and representative studies that have confirmed the major tenets of the theoretical framework around student retention in settings other than service-learning, followed by a review of the research that explores these same tenets in service-learning, as well as longitudinal and comparative studies around service-learning and retention. The discussion of the findings of this review summarizes the major themes in this research literature, showing support for the notion that taking a service-learning course can have a positive impact on student retention. Suggestions are made about the practical implications of these findings and indicate where further research might be helpful.

At first glance, it may seem that asking students to go the extra step of participating in community service could be adding yet another requirement to their study load and giving them one more reason to drop out of a study program, but it seems that it can have the opposite effect. The research being reviewed here is drawn from settings in the USA because, as in other parts of the world, American higher education is organized and conducted within its own particular social, cultural, economic, historical, and political structures. It should be noted, however, that studies undertaken in other parts of the world around the same topic have in many cases yielded similar results (e.g., Gaines-Hanks & Grayman, 2009 in South Africa; Kesten, 2012 in Turkey; Prasertsang, Nuangchalerm, & Pumipuntu, 2013 in Thailand).

### **What is Service-Learning?**

Service-learning has deep theoretical roots that can be represented by four educational thinkers. John Dewey, an American philosopher and educational theorist, drawing on the principles of both progressive education and pragmatism, was a strong advocate of experiential education; that is “learning by doing” (see *Experience and Education*, 1938), especially in a democratic society where individuals assume responsibilities for the common good (see *Democracy and Education*, 1916). Paulo Freire, a Brazilian educational philosopher with a world-wide influence, proposed the role of education in bringing about social change through active learning (see *Pedagogy of the Oppressed*, 1993).

David A. Kolb, an American educator, brought many of these streams of thought together—experiential learning, individual and social transformation, and professional preparation—by providing something of a blueprint for learning programs that encompassed a cycle of learning moments, including experiencing, reflecting, thinking, and doing/experimenting (see *Experience as the Source of Learning and Development*, 1984). Ernest Boyer became a leading voice in the movement to encourage American universities to bring their resources of

knowledge, research skills, and energies to address community needs in what he called “the scholarship of engagement” (see *Scholarship Reconsidered*, 1990). Together, the ideas of these thinkers provide the philosophical and theoretical undergirding for service-learning, which is a blend of democratic education serving the common good and forging connections among knowledge, skills, and practice.

Service-learning has been actively pursued in American higher education programs for at least three decades and has gained increasing support from numerous sources. For instance, Campus Compact, founded in 1989 by the presidents of three universities, is now a coalition of 1,100 universities and colleges across the USA. The coalition has promoted the adoption of service-learning programs as a key element in carrying out its mission of advancing “the public purposes of colleges and universities by deepening their ability to improve community life and to educate students for civic and social responsibility” (Campus Compact, 2014). Compact members have generally adopted the 1996 definition of service-learning offered by Bringle and Hatcher:

[It is a] credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs, and (b) reflect on the service activity in such a way as to gain further understanding of curricular content, a broader appreciation of the discipline, and an enhanced sense of personal values and civic responsibility. (as cited in Indiana Campus Compact, 2014)

Furthermore, the National Community Service Act of 1990 defined service-learning as:

a method (A) under which students or participants learn and develop through active participation in thoughtfully organized service that (i) is conducted in and meets the needs of a community; (ii) is coordinated with an elementary school, secondary school, institution of higher education, or community service program, and with the community; (iii) and helps foster civic responsibility; and (B) that (i) is integrated into and enhances the academic curriculum of the students, or the educational components of the community service program in which the participants are enrolled; (ii) and provides structured time for the students or participants to reflect on the service experience. (42 U.S.C. § 12511(40))

Based on these understandings, service-learning is different from simple volunteering that students might undertake through student organizations and student services in that service-learning is tied in very directly to the academic program. The purposes of service-learning go beyond charitable activity (*doing for*) which may simply maintain the societal status quo to be instead transformative (by *doing with*) for the learners who engage in it and the communities served by it (Harris 2010; Megivern, 2010; Verjee, 2010). Service learning is also different from internships, practica, and field experiences that might be a requirement in a study program, unless the internship is a service to the community, is a direct application of what is being studied in class, and interns have opportunities to reflect on their experience within a learning context and against the backdrop of theoretical knowledge under study (Harris, 2010). In essence, in service-learning there are close and deliberate ties between the academic program and the service program, each one informing the other to develop the knowledge,

skills, and attitudes for civic responsibility and engagement as an outcome of the education the student is receiving.

### Theoretical Framework

Research studies on the interplay between student persistence and service-learning have by and large drawn on one of two theoretical perspectives, each one focused on a different demographic in the higher education student population, and this review will take both as foundational. The first of these is Tinto's (1993) model of student retention, in which he proposed that in addition to student entry characteristics (which include the student's family background, gender, race/ethnicity, and precollege experiences), integration is the key to retaining students. Academic integration is accomplished when students have a sense of being successful learners, enjoy their studies, and relate positively to academic norms and values. Social integration is achieved when students have developed some friendships with other students, have had positive and personal contact with teachers and staff members, perceive the university as concerned with their growth and development as students, and are committed to the institution. Draper (2008) has proposed an extension of social integration that is more broadly conceived as "social capital". Social capital comes from a sense of "fit"; that is, a sense that one "fits happily into the role of student" as one understands it for oneself and as one understands others perceive it (2008, para. 14). In other words, social integration is "about fit with the groups the student cares about, both inside and outside the university" (2008, para. 14). In essence, Tinto's model proposes that an individual will persist in college if he is engaged and actively participates as a student, as a friend, and as a citizen of the larger community.

Tinto's model focuses on the college undergraduate, typically students recently transitioning from high school to baccalaureate programs or associate degrees at a college or university. Many students, however, do not fit that profile; that is, older students, sometimes referred to as *non-traditional students* or *adult learners*, the largest growing segment in higher education" (Becket, Refaei, & Skutar, 2012, p. 76), who are returning to university to undertake an undergraduate study program they had either not attempted or not completed when they were younger or to take up graduate studies. For retention purposes, issues of *personal fit* are less important to this group, but other concerns and interests have emerged for them. It is for this group of students that Knowles's theoretical framework is more applicable.

Beginning in the 1970s, Knowles proposed a theory of adult learning, andragogy (teaching methodologies for adults), as opposed to pedagogy (for children), that would best meet the needs of the older student (1980, 1990). Andragogy begins with a recognition of the distinctive features of the adult learner: adults are more likely to be self-directed and internally motivated; they bring to their learning a wider background of experience; they are likely to be goal-directed and ready to learn; they expect their studies to be relevant and immediate; they are practical and prefer hands-on applications of their learning in the solving of problems rather than simply gaining informational content; and they expect a level of respect, even collegiality. The teaching/learning approach that emerges from a consideration of these characteristics is one in which the adult learner is involved in decision-making within her study program; learning through experience; focusing learning on topics of immediate relevance to her personal or professional goals; and a program of study that is problem-centered rather than content-centered.

Each of these theories, Tinto's model of student retention and Knowles's andragogy, have provided a basis for support of the retention potential of service-learning as an effective teaching and learning approach (e.g., Gallini & Moely, 2003), a theoretical framework for guiding the practice of service-learning (e.g., Kelly, 2013), and research into its effectiveness and impact (e.g., Bringle, Hatcher, & Muthiah, 2010; Keup, 2005/2006; McKay & Estrella, 2008). Without drawing too fine a distinction between the traditional undergraduate student and non-traditional or advanced degree students, the two theories together suggest that student participation and engagement in the learning program and with others, the relevance and meaningfulness of the learning, student satisfaction with their learning experience, and student motivation to learn are significant factors in support of student retention.

### Method

The literature for this review was identified using the ERIC and Education Research Complete databases, as well as websites and reference lists provided in the identified literature. Searches were conducted using the keywords *service-learning* paired with *retention* and *persistence*. In light of Tinto's model of student retention, additional searches were conducted with *retention* and *persistence* along with *participation*, *integration*, and *student-centered*. Drawing on Knowles's theory of andragogy, searches were also conducted with *retention* and *persistence* paired with *relevance*, *meaning*, *student satisfaction*, and *motivation*.

Articles chosen for the review met the following criteria: they were 1) research-based; 2) set in the context of higher education; 3) conducted in the USA; 4) published since 2003; and 5) peer-reviewed or invited. No exclusions were made based on the discipline or subject-area of the participants or the participants' type of degree or certification program. Ten articles on service-learning and retention and persistence published since 2003 were identified. An additional five articles on the impact of the features of Tinto's and Knowles's models on retention in non-service-learning courses were used as supporting background for the theoretical framework used in the review.

### Results

The results of the review will begin with a brief overview of the findings of some of the most recent and representative research that explores the features of Tinto's and Knowles's models and their impact on student retention in non-service-learning settings, since these findings help establish both what features might be key to student retention and also what might be significant about the features the models identify. This will be followed by a closer examination of these same features in the research literature of the past decade in the service-learning setting, identifying in particular how service-learning presents these features and what impact they might have on student retention. This will include a critical examination of the research that has identified the features of service learning that correlate with Tinto and Knowles's models, followed by a study of the impact of service-learning over time, and finally some analyses that have compared the impact of service-learning with other common retention initiatives.



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## Features of Student Experience That Support Retention

The features of Tinto's model of attrition and Knowles's theory of andragogy have received the attention of researchers looking at retention in higher education. Braxton, Jones, Hirschy, and Hartley (2008) focused on the impact of active learning on students' social integration in the system of the university since, according to Tinto, a student's social integration has a positive impact on his commitment to the university and the likelihood that he will remain at the university (p. 80-81). Much of this positive effect, the researchers in a previous study had determined (Braxton, Milem, & Sullivan, 2000), is mediated by active learning, in this context described primarily as being engaged in classroom discussions. In this 2008 study, with data collection from a cohort of students extending over the course of 2003 and 2004, they extended the 2000 study to include more students—400—and increased the number of institutions from one to eight, using surveys of freshmen at the beginning and end of their first year, but now also including actual enrollment records of the Fall semester after the freshman year (Braxton et al., 2008). Controlling for student entry characteristics as described by Tinto, regression analyses showed that student perceptions of the use of active learning practices had a positive impact on their perceptions of their institution's commitment to student welfare; although, the impact of active learning on overall social integration failed to give a statistically reliable coefficient but student perceptions of university commitment did exert a positive influence on social integration (2008). The researchers also confirmed that social integration is positively related to a student's level of institutional commitment and hence retention. As the results indicated, "a one-unit increase in a student's institutional commitment raises the odds of that student's remaining enrolled at the institution the following semester by 3.08 times" (2008, p. 79). Overall, the study yielded results that support the notion that active learning increases students' social integration and increased social integration has a positive impact on student retention. If simply incorporating classroom discussions as a means of increasing active learning can have a measurable impact on student perceptions of social integration and subsequent re-enrollment, how much impact would the active learning in a service-learning class, which involves project planning, execution, and subsequent reflection, have on student retention? Further, the question also arises whether incorporating the more active learning of service-learning would yield a more statistically reliable measure of the impact on actual student social integration.

While online study programs have not had a good track record in retention, one study looked at the near-perfect retention record of an online program in library media (Meyer, Bruwelheide, & Poulin, 2009). Three factors were found to support this outcome: academic integration built of good relationships with the faculty and the quality of the learning experiences; relevancy of the studies to students' career interests; and the flexibility and accessibility provided by online courses (2009). Of course, a program focused on preparing students for a particular profession, such as library media, would come with a ready-made relevancy for adult learners interested in that career, but not all library media programs have the same graduation rate. In this case, the relevancy factor was carefully designed and, coupled with academic integration, evidently contributed to students' commitment to the program.

Social and academic integration as proposed by Tinto have received a great deal of attention in the research literature. Recently, Woosley and Shepler (2011) looked particularly at the role of integration on first-generation college students; that is, those students who are the first in their families to go to college, and who are at the highest risk of dropping out. They



found that involvement in the campus environment was an important aspect of social integration; commitment to their studies was an important variable in academic integration; social and academic integration were important factors in positive institutional satisfaction; and together these factors may influence persistence (2011). In essence, they found that this student demographic functions in ways similar to non-first-generation students in terms of the importance of academic and social integration (2011).

Jones (2010) also looked at the impact of social integration on commitment to continue in a study program and found that the women students in his sample showed higher levels of social integration than the men, and that it had an even more positive impact on institutional commitment for women than men. This is not to say that social integration is not at all important for the retention of men, but that it is significantly more important for women students. The limitations of this study are that the sample population was heavily weighted with women students enrolled in a system of religiously affiliated colleges, but it does also suggest that not all students will likely be affected by the various features proposed by Tinto and Knowles to the same degree since gender, race, socio-economic status, and ethnicity, for instance, may mediate different responses.

A couple of recent studies have explored the persistence of non-traditional students; that is, students typically over the age of 25, who are fast becoming the majority in undergraduate student bodies. Wyatt (2011) found in surveys and focus group sessions with non-traditional students in a large university in Tennessee that engagement was interpreted individually to mean anything from interactions with faculty, staff, and other students to participation in a campus event. However, by and large they were “more interested in getting the best education their money can buy” (2011, p. 15). In their relationships with others, they most valued “being treated like an adult” (2011, p. 17), which included getting the basic information about policies and practices of the institution and success factors for students, teachers who understand their learning styles as adults and their particular time constraints, and communication. So *engagement* for this student is typically nuanced a little differently from the traditional undergraduate student.

Howell and Buck (2012) also looked at the non-traditional student and what influences course satisfaction for them. Two items were found to be the most significant: subject-matter relevancy, and faculty competence. Class size, faculty-student interaction, and class location did not seem to be influential. Park and Choi (2009) had earlier looked at this same student population in online courses and found differences in the persistent group who reported greater family and organizational support and relevancy in their studies. Relevancy was understood in terms of being “related to their own lives” (2009, p. 214); that is, relevant to their job and connected to their prior learning and experience. These researchers recommend that courses be designed with “learning materials and cases closely related to learners’ interests, experiences, goals, and so forth” (2009, p. 215).

This sampling of recent studies not only basically confirms the main propositions supporting student persistence from Tinto and Knowles, they also give some added nuance to how these proposed factors might influence different kinds of students—traditional and non-traditional students, men and women, and first-generation and online learners. This paper turns

now to the matter of retention and service-learning, which purportedly is a teaching-learning approach that has many of the same success factors embedded in it.

### **Features of service-learning that support retention**

Many reports on the impact of service-learning on students are anecdotal, and usually enthusiastic about the positive results service-learning courses can produce for the student, the community, and the university (e.g., Evenbeck & Hamilton, 2006, Miller & Spence, 2007). Many of the claims made in this literature have been examined more rigorously in research studies including the impact of service-learning on retention, which has been examined for a number of years (e.g., Astin & Sax, 1998).

A study which picks up this theme at the beginning of the decade under review is Gallini and Moely (2003), who built on earlier studies which found that service-learning increased a student's engagement with the community outside of the university, as seen in their greater understanding of issues and problems in the community, a greater appreciation of and ability to relate to cultural and racial difference, an enhanced belief in their ability to make a difference, a deeper commitment to community service, and a stronger tendency to choose helping careers. Although, on the downside, service-learning courses not conducted well had been found to reinforce negative or stereotypical views of other people in the community or give students an exaggerated sense of their importance to the exclusion of other service providers (2003). Previous studies cited in their work also had demonstrated that service-learning may have a positive impact on a student's academic participation as well, as seen in improved understanding of course content and improved course grades; though, this latter finding did not always hold (2003). These past studies also showed that service-learning could impact a student's interpersonal engagement as well, since the course encouraged interaction with peers and faculty members.

The question Gallini and Moely (2003) addressed was whether the purported enhanced community engagement, academic participation, and interpersonal engagement in service-learning impacted retention as Tinto proposed. Students in one university drawn from across the disciplines completed questionnaires, 142 had participated in a service-learning course and 171 students had not. Students with service-learning experience evaluated their courses more positively, specifically scoring significantly higher on community, academic, and interpersonal engagement. They also rated their courses higher on academic challenge and indicated a higher impact of the course on their continuing study at the university. When a mediation model was applied, the prediction of retention was reduced but academic engagement and academic challenge remained as significant predictors of retention. One limitation in the study noted by Gallini and Moely was that no account was made of the possible difference between students who choose service-learning courses and those who do not. It is not difficult to imagine that they may already be more sensitive to and engaged with the local community, and possibly more enthusiastic about their studies. They may also have enrolled with a background of experience in community service from their previous high schools, churches, or other organizations. In their study there was no pre-test/post-test but simply a single survey given in the second semester. Most of the future studies, as will be shown, used data from two surveys, one at the beginning and another at the end of a student's freshman year to control for some of these potential differences. This study was one of the first to use a mediation model as well, a process that was

replicated in most of the subsequent studies on the relationship between service-learning and retention. The mediation model as a data analysis approach can identify the particular, salient factors in service-learning that are shown to impact retention. In the Gallini and Moely study, the specific factors of service-learning that impacted retention were academic challenge and engagement. Future studies would show that other factors also have a significant impact on retention.

One of the realities of higher education in North America in the 21<sup>st</sup> century is the continuing growth of traditionally underrepresented students, including ethnic minorities and women in some fields that have been male-dominant. The University of Michigan addressed the retention needs of these students in its engineering program by introducing three initiatives, one of which was service-learning, that gave students the option of developing greenhouses for local schools and community service facilities in combination with their studies (Davis & Finelli, 2007). A greater proportion of women students and students of color enrolled in the service-learning option than their proportion in the student body, which may indicate that for these students the service-learning option is appealing (2007). The same instructor taught both the service-learning course and the non-service-learning option and yet the student evaluations of the two courses yielded significantly different results, demonstrating greater satisfaction, enhanced social awareness, and more relevance in the service-learning course (2007). A confounding factor in a study such as this, however, is the possibility of a *halo effect*: a course with a new approach may bring with it new energy, enthusiasm, and commitment to the course's success on the part of the instructor, which may in turn give rise to greater satisfaction with the course on the part of students, regardless of the course innovation.

Tinto identified student family background as one significant factor that affected a student's persistence at college or university where first-generation students, those students whose parents have not completed a tertiary education program, are the most at risk. McKay and Estrella (2008), quoting 2005 statistics that suggested 43% of first-generation students vs. 20% of other students leave before graduating, and earlier studies that supported the idea that social and academic integration could have a positive effect on student retention, asked "to what degree, then, do service-learning courses offer the opportunity for first-generation students to experience academic and social integration, and ultimately academic success?" (p. 358). Their sample size was relatively small and drawn from one large university. They employed several instruments, some developed for this study and others already in use, some of which were more effective and reliable than others, to measure quality of interaction with faculty, academic interaction, social integration, and academic goals, complemented by open-ended questions to provide narrative responses. Their study showed that interaction with faculty:

appear[ed] to be a significant factor in realizing academic and social integration for first-generation students" and that the quality of those interactions impacted the students' perception that they would accomplish their goals, and that "service-learning may be a link in facilitating this process". (2008, p. 367)

Further, the actual community experiences reportedly helped them remain motivated about their studies and the relationship with other students, and the faculty member in processing their service experiences bolstered their academic understandings and personal growth.

Another study, a “justice-learning” approach to first-year retention, focused on low-income, first-generation college students using service-learning (Conley & Hamlin, 2009). In this approach, the students explored issues of power, privilege, and difference in a seminar and participated in two Saturday morning service engagements. The sample was small, just an initial group of five students at a satellite women’s college campus in a large city, who for unforeseen circumstances became three, but the data gathering was rich, including individual surveys, informal interviews, formal group interviews, observations, and artifacts such as course assignments, emails, journal entries, and so on. The researchers found that the seminar/service activity around social justice gave these students among other things a sense that they could succeed in a college environment, with a greater sense of self-efficacy and personal agency; although, they also acknowledge that the sample size would preclude forming broad generalizations based on their findings (2009). It was also impossible to disaggregate the effects of the service-learning component on the students’ retention from those of the class work; though, in service-learning approaches, what is learned in class is deliberately connected with the out-of-class service.

Combining the themes of first-generation and low-income students, Yeh (2010) explored whether service-learning would have a similar impact on retention for students in this demographic as it does for white, middle-class students. Using a small purposive sample for exploratory purposes, she interviewed the students and their program directors, reviewed documents, and observed students in class and at the service site. The study showed positive results in building students’ skills and understandings that relate to social and cultural integration; in developing resilience which is consistent with theories of retention; in finding the learning meaningful, which as Yeh remarked does not necessarily connect with Tinto’s theoretical framework although, as noted earlier, it does connect with Knowles’s andragogy; and in developing a greater awareness of social and political realities and the importance of their questioning the status quo and participating in social change (2010). This was an exploratory study and, as Yeh suggests, needs to be followed by wider sampling, including students who had negative experiences in their service-learning or who failed to persist to graduation.

Bringle, Hatcher, and Muthiah (2010), using a large data set from student surveys conducted at the beginning and end of the freshman year and second-year re-enrollment data from registrars at participating colleges and universities from Indiana Campus Compact member institutions, concluded that “[r]e-enrollment was found (a) to be mediated by post-course intentions to graduate from that campus, and (b) related to enrollment (vs. not enrolled) in service-learning” although, this latter relationship was affected by pre-course intentions (p. 45). Further, intention to stay at that campus was impacted positively by service-learning experiences and the quality of those experiences (2010, p. 45). Significantly, students reported that service-learning courses were “better educational experiences” than non-service learning courses (p.45). “Better educational experiences” was a “composite measure that included extent of peer interaction, extent of faculty interaction, course satisfaction, perceived learning, degree of active learning, and personal relevance” (p. 45), each of which reflect particularly Tinto’s model of retention or Knowles’s model of adult learning, and which Bringle, Hatcher, and Muthiah proposed make service-learning a “powerful pedagogy” (p. 45).

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## Impact of service-learning over time

While earlier studies looked at the intention to remain enrolled and actual continuation of enrollment from the first year to the second for students enrolled in service-learning courses, researchers at California State University-Fresno were able to use institutional data to track students over five years to get an overall picture of the impact of service-learning courses compared with non-service-learning courses on student persistence to graduation as well as on student personal growth and job-related skills (Leimer, Yue, & Rogulkin, 2009). They found that students who took a service-learning class had higher four-year and five-year graduation rates, even when controlling some of the other factors that could have an influence such as gender and ethnicity; although, a student's preparation for college had a stronger influence than participation in service-learning (2009). The more immediate impact of the service-learning course taken during the first year increased the odds of returning for the second year by 1.474, regardless of SAT and high school GPA scores (2009, p. 4). Seniors who took a service-learning course were also more likely to complete their studies successfully within a year than students who had never enrolled in a service-learning course and, of the seniors who did not complete within a year, those who took a service-learning course were more likely to persist than comparable non-service-learning students (2009, p. 4). This is one of few studies in the decade that actually looked at long-term persistence records, but as the researchers noted, the institutional records they used do not provide information on the quality of either the service-learning and non-service learning courses, or on potentially influential factors such as students' past experience with community service, commitment to complete their courses, or worldviews that might encourage serving the common good (2009, p. 10). Furthermore, it should be added that the data did not disclose the factors that might be significant in service-learning that link it to student retention. Despite these limitations, the researchers concluded "Service Learning helps students succeed" (2009, p. 10).

## Impact of service-learning compared with other retention initiatives

Service-learning is one of several strategies universities and colleges have adopted in the U.S. to stem the loss of students, especially in the first year of their program. Some studies during the decade under review compared the effectiveness of the various strategies being adopted. For instance, Keup (2005/2006), responding to the national statistics on undergraduate attrition in the USA, which gave figures in 2003-2005 ranging from 20% to 70% student loss depending on the type of institution and the control of and criteria used for admissions, the largest proportion of which occurred during the first year up until the beginning of the second-year in four-year programs, addressed the issue more directly. She examined the impact of several curriculum interventions that had been implemented to address this loss: first-year seminars, communities of practice, and service learning. Using Tinto's model as a theoretical foundation and data from two surveys by the Cooperative Institutional Research Program for freshman students at the beginning and end of their first year at universities and colleges around the country, she applied multivariate analysis of the descriptive findings to determine if there were a relationship between the three curriculum interventions and the intention of students to re-enroll in the second year. Her findings suggested that "the three curricular programs may facilitate specific institutional experiences that lead to the decision to persist" (2005/2006, p. 73); although, there was some question about whether these curricular programs served "as a direct conduit to retention" (p. 73). Certainly, engaging in each of the



interventions yielded statistically significant differences in factors related to student engagement: “faculty interaction, academic engagement and performance, and interaction with peers and the campus community” (p. 72). Using logical regression analyses, she discovered that “participating in service-learning appears to increase the odds of stating an intention to re-enroll for a second year by 14%” (p. 76); although, again the impact of service-learning may be indirect and mediated, suggesting that it “seems to facilitate good academic practices that, in turn, positively impact the intent to return for a second year” (p. 77). She concluded that “service-learning may be a particularly salient means of facilitating interaction with faculty” (p. 81), which Tinto theorized is one significant factor in student retention. In conclusion, she found that of the three curriculum interventions, service-learning was “the sole predictor of the intention to re-enroll” (p. 82), even though the impact of service-learning was mediated through student-faculty interactions and positive academic experiences.

More recently, studies of the student experience have begun to look at what has been identified as *high impact practices* or HIPs, an expression first coined and described in a publication by the Association of American Colleges and Universities, *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* (Kuh, 2008). HIPs are pedagogies that require active engagement on the part of students and, as Kuh showed, particularly Hispanic and African-American students and students with low scores on the college entrance examination (ACT). The pedagogies identified are first year seminars for small groups of students with a faculty member, a common core of intellectual experiences both curricular and co-curricular, learning communities where the *big questions* are explored in a set of integrated courses, writing-intensive courses or writing across the curriculum, collaborative assignments and projects, research opportunities for under-graduates, diversity or global learning often involving study abroad, internships, capstone courses and projects, and service-learning or community-based learning (Kuh, 2008).

Using large data sets from the National Survey of Student Engagement collected from thirty-eight colleges and universities in three states, with information collected from focus groups, Finley and McNair (2013) further explored the impact of these HIPs on underserved students. The quantitative data revealed that all types of students perceived that participation in one or more HIPs increased their engagement and “deep learning” (2013, p. 9); that is, knowledge that is better understood and remembered, and that the reported gains in the areas of general education, practical competence, and personal and social development. It was also apparent that the more HIPs a student participated in the greater the increase in these effects (p. 9-10). Furthermore, the effect was greatest when the HIP was a service-learning course (p. 9). The qualitative data suggested that HIPs were seen to align closely to preparation for the work force and participation as a citizen (p. 23-29). The interviews and discussions with students also revealed some of the obstacles students face when participating in HIPs, providing a timely warning that offering a course like a service-learning course is not guarantee of good results—the service-learning needs to be conducted and managed well (p. 29-30). Like many studies, this one drew conclusions based entirely on student perceptions. It did not examine retention per se, but did look at student perceptions of their active engagement with learning, a factor identified particularly by Tinto as a having a significant impact on retention. Overall, this study encourages us to see the value of offering high-engagement courses and other learning experiences, and the particular value of service-learning courses as one kind of engaging student experience.



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## Discussion

Throughout the decade under review, there were contributions to a growing body of research around the theoretical propositions about retention and the learning needs of students in higher education that could lead to student success. In particular, social and academic integration, active learning, and practical relevancy of the learning were key factors in this literature. These factors were shown to be significant for the retention of undergraduates, non-traditional learners, women students, first-year students, and first-generation students. This review of the literature on service-learning confirmed that these were also significant features of the service-learning approach and that they aided in the retention of students.

The research on service-learning and student persistence over this period generally followed one of two lines of inquiry, with several studies incorporating both lines. One line looked at the features of service-learning that seemed to encourage retention and the other looked at the impact of service-learning on the retention of students over time. The majority of studies followed the first line of inquiry and provided evidence of improved retention rates linked to the features identified by Tinto or adult learning theory. During this past decade, studies gave evidence that service-learning provided opportunities for close association with faculty members especially on service trips and in the reflection exercises afterward, with peers, and the community, finding real-world applications from the subject-matter studied in class that gave meaning to the studies, hands-on practice of skills needed to meet career goals, and active participation and engagement with the subject matter were key elements in making service-learning a measurable force in building motivation and promoting persistence. Given the theoretical base of these studies (eight of the nine studies reviewed incorporated the ideas of Tinto in their theoretical framework and several reflected the principles of andragogy directly or indirectly) it is not surprising that these features surfaced. And since these features have been found to be effective in promoting student success, it is also not surprising that they also promoted student success when embedded in the pedagogy of service-learning.

The second line of inquiry looked at the impact of service-learning, not so much in terms of what service-learning could provide in the way of features deemed necessary for student success, but in terms of its impact over time on student persistence. The earliest step in this line of inquiry was to collect data on just one occasion in students' first year at college or university (e.g., Gallini & Moely, 2003; McKay & Estrella, 2008), but this was found to be an inadequate gauge of retention because it did not control for prior intentions and did not follow the impact on retention beyond the immediate experience of the course. The next round of studies took measures of students' commitments to return early in the first year and again at the end of the year to control for these confounding factors (e.g., Keup, 2005/06), but again these studies failed to go beyond what a student intended to do about re-enrollment in the following year. The next step in this sequence added data on the actual re-enrollment of students in the second year (Bringle, Hatcher & Muthiah, 2010) and found that the relationship between taking a service learning course and retention was positive, even if weakly so. One study took an even longer view of the retention impact of service learning courses by reviewing data collected between 2003 and 2008 following an entering cohort of students through to their fourth or fifth year (Leimer, Yue, & Rogulkin, 2009). The researchers in this study found strong evidence of a long-range impact on taking a service-learning course early in the program and a measurable impact even when that course was taken in the senior year.

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## Practical Implications

The findings of the studies reviewed here suggest a number of practical implications for improving the retention of students through the deployment of service-learning opportunities.

1. Service-learning opportunities are one option colleges and universities might consider when seeking to improve student retention, especially in the early undergraduate years. As this review has shown, enrollment in service-learning courses has a consistent record of improving student intention to persist and the actual retention of students. This effect has been credited in large part to the features of service-learning: its activities encourage student integration socially and academically in the university or college community, the local community where the service is conducted, and in relationships with faculty and peers; engagement and participation in learning activities both at the service-site and in the follow-up reflection exercises; and the meaning and relevance that come from applying course content to address needs in the *real world*.
2. All elements of the service-learning model have a role to play in promoting persistence: application of subject-matter to meet actual needs in the community; hands-on service projects; and teacher-led and guided reflection on activities to follow-up on the service. Each of these activities contributes to students' social or academic integration, or adds meaning and relevance to the study, or promotes students' engagement with and participation in the learning.
3. Many elements of current curricula and co-curricula hold promise for being readily adapted as service-learning activities: field work, internships, and practica connect learning in class with applications outside of class. If internships incorporated some elements of service and were not limited in focus to the students' personal and professional development, and if the reflection components were required, they could be not only professional learning experiences but also stronger service experiences. A service element brings something extra to the experience gained from the usual internship or practicum: the added challenge of not just doing but of doing something for others, of not just applying one's knowledge but doing so in a way that makes a difference. Then, too, many student groups are already engaged in service projects voluntarily. If these activities were to be informed by what students are studying and the students could participate in guided reflection on what they learn from these activities, these service experiences could become even stronger learning experiences as well.
4. While there is no suggestion in any of these studies that service-learning courses should be made mandatory for all students, as optional learning opportunities they may have particular relevance to meeting the needs of first-year and first-generation students, women students, and possibly other groups of students as well; although, it should be noted that while service-learning has particular benefits in retention for some identifiable sub-groups in the student body, its positive effects on all students have been documented.
5. Service-learning courses have an impact on student retention even as late as the senior year so, even though the highest drop-out rates occur in the first-year, opportunity for

this kind of learning may have relevance for persistence throughout the undergraduate years and possibly beyond in graduate programs.

### Recommendations for Future Research

The two lines of inquiry represented by the studies reviewed here—the features of service-learning and the long-term impact of taking a service-learning course—have not yet been integrated in a single study. This gap raises some important questions: Are features such as academic and social integration, meaningfulness and relevancy, and active learning and participation similarly significant in retaining students in later years as they have been shown to be in the first-year experience or do some take on increasing or decreasing significance as students move through each of the years of their program? It is assumed that service-learning courses are important in retaining first-year students when the drop-out rates are highest, but how important are they for retaining students in all the years of their program? In other words, does service-learning have long-term relevance in supporting student retention and if so, what is it about service-learning that makes it relevant at different points in the students' academic journey?

Very little research has been conducted on the question of the quality of service-learning courses and their impact on student persistence. Do some practices lead to greater course satisfaction and retention than others? How much service, and how many service-learning courses should be considered to maximize retention? Should service-learning courses be mandatory or not?

While service-learning has been shown to have similar but different impacts on retention of students of different gender and family background, other differences among students, such as age of the student and ethnicity, should also be investigated. Some studies have been conducted for these different groups in relation to other features supporting retention (e.g., Howell & Buck, 2012; Jones, 2010; Wyatt 2011), and identified some nuanced differences for different groups of students, but not in relation to service-learning.

Service-learning as a pedagogy is being adopted and researched across many disciplines, for example, see Amerson (2012) in nursing; Brescia, Mullins, and Miller (2009) in instructional technology; Cadwallader, Atwong, and Lebard (2013) in marketing; Calvert, Kurji, and Kurji (2011) in accounting; Caro, Lirette, and Yest (2013) in business; Davis and Finelli (2007) in engineering; Desmond and Stahl (2011) in human services; Eudey (2012) in women's and gender studies; Frank, Omstead, and Pigg (2012) in correctional education; Garcia-Contreras, Faletta, Krustchinsky, and Barnes (2013) in mathematics education; Kearney (2013) in pharmacy; Kesten (2012) in teacher preparation; Lowery (2007) in statistics; Mink and Twill (2012) in social work; Ogeyik and Guvendir (2009) in foreign language learning; Simon, Yack, and Ott (2013) in public administration; Simon, Wee, Chin, Tindle, Guth, and Mason (2013) in environmental sciences; Sterling (2007) in interior design; VanDette (2010) in literature studies; and Videtic (2009) in fashion design and merchandising. Allowing that the disciplines have their own specific subject-matter, structures of knowledge, goals and purposes, methods of inquiry, and ultimate questions, what is the specific impact of service-learning in each of these disciplines, and what particular service-learning practices best support retention as well as the knowledge tradition in them?

Most of the retention literature around service-learning is focused on the undergraduate in traditional programs. As graduate studies continue to grow in necessity and enrollment, does service-learning at the Masters and even the doctoral level address learner's needs and enhance their persistence? Certainly, service-learning is being applied in more Master's degree programs—see, for example, Brescia, Mullins, and Miller (2009); Hagan, (2012); Harris (2010); Lowery (2007); Maccio (2011); Simon, Yack, and Ott (2013). Increasing too are the numbers of e-service-learning opportunities being offered. Do these courses have a similar impact on retention as traditional face-to-face service-learning courses and how can the features of service-learning that are known to support retention be implemented in the online mode of teaching-learning?

A remaining question emerges from this review about service-learning *per se* which warrants the attention of researchers. Colleges and universities may be interested in service-learning because it features interpersonal interaction, engagement and participation, practical application, and personal meaningfulness, which have been shown to have a positive impact on student retention. However, the essence of service-learning is both educative and contributive; it is a way to learn and a way to contribute to the common good and serve the needs of others. The latter addresses the realm of values, responsibilities, attitudes, and even ethics. Can this cluster of the affective attributes of service-learning contribute to the impact of service-learning on persistence and student success, not only in student academic programs, but also in preparing them for their chosen careers and their place in society? That is, does involvement in a service component as part of the learning program also attract and retain students?

### Conclusion

The purpose of this review was to discover the trends in research findings about the link between enrollment in service-learning courses and the retention of students. The features proposed by theorists such as Tinto and Knowles—academic and social integration, engagement with the subject-matter and participation in the learning process and course content that has relevance and application—have been shown to contribute to student retention generally. This review evidences that these same features particularly apply to service-learning for they intrinsically characterize and define service-learning. Service-learning has been shown to have a positive influence on retention of students during their first year and beyond, with marked impact on some students in particular, including women and first-generation students. While there are still significant questions to be addressed by research, there is ample evidence already that service-learning can have a measurable and positive impact on students' commitment to continue.

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