Does mattering matter? : an analysis of mattering and persistence rates of EOP and non-EOP students

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Does Mattering Matter? An Analysis of Mattering and Persistence Rates of EOP and Non-EOP Students

By

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Abstract

The multitude of benefits of college student retention for individuals, higher education institutions as well as our society has caused many researchers, administrators and policy makers to examine the causes of college student attrition as well as interventions that can potentially increase the success of students in post-secondary education. This study expands upon previous research on college student retention by utilizing Nancy Schlossberg’s theory of mattering and marginality as a lens to understand the retention of college students (Schlossberg, 1989). Based on Rosenberg and McCullough’s (1981) seminal work on mattering, Schlossberg (1989) developed a theory of mattering and marginality. Mattering, defined as “the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, 1981, p. 161), was theorized to be critical to a student’s experience of connection and belonging to their institution, and, hence, would increase the likelihood that they would be retained by their college or university. Schlossberg (1989) used her theory to study adult learners in higher education and posited that increased mattering would increase involvement and learning for adult students, thereby increasing retention.

This study was undertaken to examine the role of mattering on the retention of college students at a public, four-year, liberal arts institution in the Northeast. Specifically, the study surveyed “at risk” students in the Educational Opportunity Program (EOP) as well as a group of non-EOP students at one higher education institution during the spring 2021 semester. To date, there has not been any published research that has examined the association between mattering and retention of students in opportunity programs. The present study addressed that gap in research. The survey instrument utilized in this study was the College Mattering Inventory (CMI). The CMI was developed to measure the level of mattering that students experience at their higher education institution (Tovar, Simon, & Lee, 2009). In addition to
the data collected from the CMI, demographic, financial and academic data were obtained from the higher education institution for respondents of the survey.

Utilizing the data from the student responses to the CMI as well as the academic, demographic and financial data from the higher education institution, two research questions were answered. The first question sought to determine if EOP students experienced higher mattering levels, overall, as well as with students, instructors and counselors/advisors, compared to non-EOP students. The analysis showed that EOP students reported higher overall mattering and higher counselor/advisor mattering compared to non-EOP students. The second question sought to determine if students who experience higher levels of mattering reported higher levels of intention to persist. The analysis found that students who reported higher levels of overall mattering, student mattering and counselor/advisor mattering also reported higher levels of intention to persist. Based on the findings of this study, recommendations for future research as well as implications for policy and practice were provided.
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Chapter 1

Introduction

Given the many benefits of college student retention and completion there has been considerable research to understand why students attrite and what interventions can be employed to improve student success in higher education (Astin, 1984; Bean, 1979; Braxton, 2010; Terenzini & Pascarella, 1980; Tinto, 1993). Retention of academically underprepared students and students from low income backgrounds is of particular concern, given the special challenges that place such students “at risk” of not graduating. (Gladiuex & Swail, 2000; Laskey & Hetzel, 2011; Yousif, 2009). Drawing on the theory on mattering and marginality (Schlossberg, 1989), this study examined whether mattering might contribute to the retention of students enrolled in an Educational Opportunity Program (EOP) as well as non-EOP students. Schlossberg’s theory on mattering posits that the more students feel a sense of mattering at the higher education institution they are attending, the more likely they are to be retained at that institution. As such, the thesis of this study is that higher mattering levels will be associated with higher student retention. A particular focus in this study is on mattering and retention of students enrolled in EOP. EOP is an opportunity program for low-income and academically disadvantaged students. Within the 64 campus State University of New York, over 50 campuses offer such programs (Educational Opportunity Program, 2021). Currently, no research has examined the association between mattering and retention of students in EOP programs. The present study addressed that gap in research.

The Problem: Retention of College Students

The main problem that this research seeks to address is the retention of “at-risk” college students, defined as low-income and academically underprepared students (Cabrera, Miner, & Milem, 2013). Researchers have studied the retention of at-risk students, documenting their considerable disadvantages in terms of college retention and graduation (Ceyhan, Thompson, Sloane, Wiles, &
Tillotson, 2019; Laskey & Hetzel, 2011; Yousif, 2009). Academically underprepared students are students that do not meet the traditional admission requirements of the college or university that they are attending (Nemelka, Askeroth, & Harbor, 2017) and are often required to enroll in remedial coursework that does not carry college credit, which may increase their time to graduation. Such students may also struggle to meet the academic expectations of the institution primarily in the areas of reading, writing, and mathematics (Lamb, 2016). Low-income students (for our purposes, those from families with incomes of less than twice the levels established under the Federal Poverty guidelines), also face myriad challenges that inhibit them from being retained by an institution. For such students, weak ability to pay for higher education expenses, financial illiteracy, pressing financial needs at home, time devoted to work while attending college, and limited ability to navigate the bureaucracy of higher education institutions variously combine to limit retention (Thayer, 2000). In consequence, many institutions have developed initiatives to address the challenges faced by low income and academically underprepared students to continue in college (Ceyhan, Thompson, Sloane, Wiles, & Tillotson, 2019; Laskey & Hetzel, 2011; Nemelka, Askeroth, & Harbor, 2017).

**Initiatives to Improve Retention**

Research on college student success has examined many of the initiatives developed to increase the retention rates of students. Since about 25% of attrition occurs between the first and second year of enrollment, many initiatives focus on supporting first year college students (Estepp, Shoulders, & Johnson, 2020). One of the most widely used and studied interventions to increase retention rates of college students, especially during their first year of college, is the learning community (Kern & Kingsbury, 2019). Learning communities, comprising cohorts of students co-enrolled in courses usually during the first semester of college, have been shown to have a positive impact on the retention rate of students in such cohorts (Hall & O’Neal, 2016; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Another frequently utilized intervention is the first year seminar. Such seminars provide an orientation to the
expectations and resources of the institution for newly entered students (Hill & Risolo, 2018). Research has generally shown that first year seminars have a positive impact on retention for all students (Goodman & Pascarella, 2006), as well as at-risk students (Potts & Schultz, 2008).

In addition to first year seminars and learning communities, colleges and universities have implemented other initiatives to increase retention rates of students, among which are mentoring and academic support services. Structured in different ways and variously involving faculty, staff, peers and alumni (Collier, 2017), mentoring has generally proven to have a positive impact on retention of undergraduate college students (Huerta & Fishman, 2014; Lahman, 1999; Yousif, 2009). Similarly, academic support services, such as tutoring (peer and professional), study groups, and/or supplemental instruction (Grillo & Leist, 2013), have also generally been shown to have a positive impact on college student retention (Amstutz, Wimbush, & Snyder, 2010; Rheinheimer, Grace-Odeleye, Francois, & Kusorgbor, 2010; Skoglund, Wall, & Kiene, 2018). Over time and based on the success of the wide range of initiatives to support retention, higher education institutions continue to develop structured support services (Kern & Kingsbury, 2019).

The successes of retention initiatives also extend, specifically, to at-risk students (Collier, 2017; Grillo & Leist, 2013; Kern & Kingsbury, 2019). Since at-risk students leave college at a higher rates than do fellow students who are not at risk (Laskey & Hetzel, 2011; Nemelka, Askeroth, & Harbor, 2017), many institutions have implemented opportunity programs to help increase the retention rate of this population of students (Braunstein, Lesser, & Pescatrice, 2008). Opportunity programs aim to combine many of the support services previously mentioned as well as financial aid grants, bridge programs, developmental coursework, and academic counseling in an effort to increase retention rates of at-risk students (Yousif, 2009). Research has shown that participation in opportunity programs has a positive impact on the retention rate of students enrolled (Chaney, 2010; Dale & Zych, 1996; Yousif, 2009). The
success of these programs has attracted additional public and system funding, as is the case in New York (SUNY, 2016).

**EOP Counseling**

Although prior research has shown that opportunity programs have a positive impact on the retention rates of students (Chaney, 2010; Yousif, 2009), less is known about what specific aspects of opportunity programs are vital for student success. Yet in a period of tight budgets and stagnant enrollments especially in New York and the Northeast and more specifically for public colleges in this region, improved retention for those most likely to leave college before completion has become an important feature of overall campus planning (Mitchell & Leachman, 2019; SUNY, 2020). As a consequence, it is important to know what components of initiatives – especially opportunity programs - that contribute to the retention of its students. As mentioned, opportunity programs generally provide a suite of support services to address the academic, financial, career, social and personal areas of college students’ lives (Yousif, 2009). Promising findings have been reported about various aspects of opportunity programs and their impact on student success. For example, research has shown that students that participate in summer bridge programs have higher levels of retention (Kezar, 2001; Nemelka, Askeroth, & Harbor, 2017). There is also research to show that academic support services such as tutoring (Rheinheimer, Grace-Odeleye, Francois, & Kusorgbor, 2010), support courses (Pindling, 2006) and supplemental instruction (Khan, 2018) were effective at improving the academic success of opportunity program students. However, while there has been research done on various aspects of opportunity programs, research that specifically examines the role of counseling in opportunity programs is more limited.

In general, the research on the role of opportunity program counseling yields favorable findings. One study that examined community college opportunity program students found that opportunity program counseling was the most important factor that impacted retention (Yousif, 2009). In another
study, Tovar (2015) found that greater interaction with academic counselors by Latinx students in an opportunity program increased their intentions to persist. These studies are consistent with the research on student engagement, which finds that formal contact with institutional agents having a positive impact on retention (Astin, 1984; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Culp (2005) found that opportunity program academic counselors contribute to student success by providing information, advising, and counseling. It can be argued that a student’s relationship with a counselor enables the student to develop a sense of connection to the institution they are attending, which, in turn, can positively impact retention (Kuh, 1996). The present study seeks to expand upon this research by examining in particular, the impact mattering may have on student retention for EOP and non-EOP students.

**College Student Mattering**

As part of examining specific opportunity program services that aim to improve retention of students, this research study seeks to understand the role that mattering has on retention for college students enrolled at a four year, rural, public, liberal arts institution in the Northeast. Based on Rosenberg and McCullough’s (1981) seminal work on mattering, Schlossberg (1989) developed a theory of mattering and marginality. Mattering, defined as “the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, 1981, p. 161), was theorized to be critical to a student’s experience of connection and belonging to their institution, and, hence, would increase the likelihood that they would be retained by their college or university. Schlossberg (1989) used her theory to study adult learners in higher education and posited that increased mattering would increase involvement and learning for adult students, thereby increasing retention. Other researchers have used Schlossberg’s theory of mattering and marginality to study its impact on college student retention (Butcher, 1997; Isaacson, 2008; Kent, 2004). These studies have shown that mattering has a positive impact on college student retention.
Since student mattering has been found to contribute to retention for all college students, the theory of mattering and marginality is worth further analysis in terms of understanding its impact on retention for student enrolled in opportunity programs.

**Mattering and Opportunity Program Student Retention**

To date, there are no studies that examine the mattering levels of undergraduate opportunity program students and the relationship of mattering to those students’ retention. This important gap in research is the focus of this study. Research has examined the correlates of opportunity program student mattering, but relevant work did not link mattering to retention (Gomez, 2008). While Cole, Newman & Hypolite (2020) studied the role of mattering and belonging on first year students enrolled in a comprehensive college transition program, associations between mattering and retention were not explored. Tovar (2015) studied the role of faculty and counseling and it impacts on the success of Latinx students in support programs but did not utilize mattering as a concept (or measures) of mattering and marginality in his study. While Dykes (2011) studied how mattering impacted the transfer persistence of low-income, first generation community college students, she did not look into the group of students enrolled in opportunity programs. Although opportunity program students have similar characteristics to other at-risk students, opportunity program students are dissimilar to at risk students in that opportunity program students are participants in a comprehensive set of activities guided by program staff that create learning communities where “students come to rely on and trust one another like members of a family or a close-knit community” (Gomez, 2008, p. 3). As such, opportunity program students may well come to experience “mattering” more than other students, and the counselors who orchestrate program activities may well serve as one of the critical agents in creating that sense of mattering.

A finding that mattering “matters” for college student retention generally, and specifically for retention of at-risk students, would be promising to improve understanding of retention and, again,
specifically, the understanding of how and why EOP programs might be associated with improved retention. As opportunity programs purposefully seek to foster a sense of community and providing a holistic counseling component (Gomez, 2008), the approaches adopted in EOP offer – perhaps uniquely – important ways in which students may come to be connected to their institution. As observed above, Tovar (2015) found that Latinx community college students participating in an opportunity program who had greater interactions with counselors had increased intent to persist. This finding aligns with complementary research done by Astin (1984) and Gomez (2008), who posited that students’ involvement with college personnel positively influences their bond and connection to their institution, thereby increasing the likelihood of retention. The present study explored this potential impact by specifically studying mattering levels of opportunity program students and the relationship of mattering to their intent to persist.

In addition to studying mattering in a general sense, this study also examined the various forms of mattering students experience during their college life. College students might well derive a sense of mattering from multiple members of the college community including faculty, advisors/counselors and other students. Given Astin’s (1993) finding that the three most important forms of student involvement, which are highly correlated to retention, are academic involvement, faculty involvement and student peer groups, it is important to consider a variety of possible experiences that college students have with mattering. Thus, the present study included not only the overall levels of mattering of college students, but also in what context students experience mattering such as mattering from instructors, other students, and counselors/advisors. As Tovar, Simon and Lee (2009) pointed out, “whereas a general feeling of mattering to the college may be indicative of students’ general place within the university or college, it is their relationship to specific others (e.g., faculty, counselors/advisors, other students) that may best attest to their feelings of mattering or not mattering” (p. 159).
Research Questions

This study focused on the relationship between student mattering and intent to persist for college students. Using a sample of students at a public, rural, four year, liberal arts institution in the Northeast, patterns of mattering and the associations between mattering and intention to persist are examined both for those enrolled in the campus opportunity program and fellow students who do not participate in an opportunity program. The research questions pursued in this study are:

1. Do opportunity program students experience mattering (overall, and with respect to counselors/advisors, faculty, and other students) at higher levels compared to non-program students?
2. Do students who experience a higher level of mattering (again, generally, and with respect to counselors/advisors, faculty, and other students) have a higher level of intention to persist?

In addition to the first two research questions, supplemental analysis was conducted to answer additional questions pertaining to the persistence and mattering:

1. Is there a relationship between intent to persist and actual persistence for the total sample as well as for the separate EOP and non-EOP student samples?
2. Is there a relationship between overall, counselor/advisor, student and/or instructor mattering and actual persistence for the total sample as well as for EOP and non-EOP student samples, separately?

Conclusion

This study had as its aim an improved understanding of mattering, including differences between students enrolled in an EOP program and fellow students not enrolled in such a program, along with associations between mattering and intention to persist. Based on previous research it is
hypothesized that mattering will be greater for EOP students than for fellow students (owing to the initiatives embedded in the EOP programs that seek to foster a sense of community and belonging) and that mattering is positively associated with intent to persist. Findings aim to fill a gap in the literature on college student retention, especially related to understanding what factors are associated with the success of at-risk students in higher education. The next chapter will review and discuss the literature on college student retention, opportunity programs as well as how the theory of mattering and marginality can be used to understand college student retention. Chapter 3 will provide a description of the methodology and analysis that will be used in the study. In Chapter 4, results of the data analysis and answers to the research questions and the supplemental analysis will be explained. Finally, Chapter 5 discusses the limitations of the study, recommendations for policy and practice, and provides suggestions for further research.
Chapter 2

Literature Review

Given the rising cost of higher education and the increasing amount of student debt (Gonzalez, Ahlman, & Fung, 2019; Mitchell, Leachman, & Saenz, 2019), the value of completing college has come into question. However, despite rising costs, there has been an increase in the college enrollment rate as the percentage of high school graduates attending college went from 63.3% in 2000 to 66.2% in 2019 (U.S. Bureau of Labor Statistics, 2020). Although there has been a slight overall increase in college enrollment for the first two decades of the twentieth century, the Covid-19 pandemic has caused a decrease in recent college enrollment as the US postsecondary undergraduate population is now 9.4% lower than it was before the pandemic (National Student Clearinghouse Research Center, 2022). In addition to the recent enrollment challenges faced by higher education institutions, college success, in terms of retention and graduation rates, is another issue that is of concern, especially for “at-risk” students, such as low-income students, students of color and first generation students (National Center for Education Statistics, 2019).

The study presented here explored factors that may be associated with greater retention for at-risk students. The first research question focused on to what extent mattering, defined as the feeling that a student is significant to others, differs between EOP and non-EOP students. The second research question explored the extent to which mattering (overall, from students, faculty and counselors/advisors) is associated with intent to persist. Given that past studies have found that mattering has contributed to retention among adult students (Kent, 2004; Schlossberg, 1989), the present study examined how mattering from fellow students, instructors, counselors/advisors and overall mattering impacts the intent of persisting for students enrolled at a rural, public, four-year college in the Northeast. This study specifically aimed to analyze whether EOP student mattering is
related to provided support services, namely EOP counseling, and if this mattering impacts students’ intent to persist.

The Importance of College Completion

The retention of college students is an important issue to study because of the impact college completion has on the economy, society, higher education institutions as well as students and their families. The attainment of a bachelor’s degree has a large impact on students as those with bachelor’s degrees earn approximately $800,000 more over their careers compared to their peers who only graduated high school (Federal Reserve Bank of New York, 2022). In addition to the value of a college degree for an individual, a bachelor’s degree also has been shown to have positive impacts on society as it is associated with better health, civic engagement, marriages and employment rates and decreased incarceration rates (Trostel, 2015). For higher education institutions, having high rates of retention and graduation decreases the need for increasing recruitment efforts, helps with accreditation, improves rankings as well as increases income to the college or university (Council of Regional Accrediting Commissions, 2018; Kiplingers Personal Finance, 2019).

More broadly, college retention and graduation are important issues for the US economy. In order for the US to remain competitive in a global, knowledge based economy it will have to find effective ways to retain and graduate students from college so that higher education institutions can produce an educated workforce for our society (Autor, 2019; The Pell Institute, 2019; Western Interstate Commission for Higher Education, 2016). According to the Organization for Economic Co-Operation and Development, the US is 11th in the world in terms of the percentage of 25-34 year olds who have obtained a bachelor’s degree (2019). Even though there are people with less than a bachelor’s degree in the US who have “good jobs,” defined as jobs paying at least $55,000 for people without bachelor’s degrees and at least $65,000 for people with bachelor’s degrees or higher, the majority of people with
good jobs also have at least a bachelor’s degree (Carnevale, Strohl, Ridley, & Gulish, 2018). In a global, knowledge-based economy driven by technological change and outsourcing owing to trade, jobs increase at a greater rate for educated and skilled workers than for those with low skills (2018).

Higher retention is also beneficial to students who otherwise would not have completed a college degree. Students who have student loan debt from college attendance but do not graduate are less likely to able to pay back their debt (Wei & Horn, 2013). According to the US Department of Education, non-completers are three times more likely to default on their student loans compared to completers (2015). In addition to lower wages, non-completers with student debt are even more likely to delay marriage, start a business and purchase a home (Haneman, 2017). The many benefits to individuals as well as the economy and society in general for students to complete their degree and pay off student loan debt has brought about a discussion on policies and practices to increase the number of college graduates as well as and to reduce the number of people who default on their student loans.

College student non-completion and student debt default have an impact on society and the economy, in addition to the impact on the individual student. To address this issue, the U.S. Federal Government has developed policies to promote college completion (U.S. Department of Education, 2019). The Institutional Accountability regulations put forth by the US Department of Education in August 2019, in particular, aim to hold higher education institutions more accountable for retention and completion. In particular, Federal student loan borrowers are afforded more time to file claims against higher education institutions that may have used fraudulent practices. Additionally, the regulations streamline the borrower repayment claims process and give borrowers the right to seek specific financial damages. Although the policies protect the rights of Federal student loan borrowers, the regulations encourage debt repayment as opposed to facilitating forgiveness of loan balances. (Naylor, 2016).
The regulations promulgated at the end of the Obama presidency scaled back what had been more favorable consideration for Federal student loan forgiveness for students who were defrauded or misled by a higher education institution (U.S. Department of Education, 2016). However, the Biden administration has made changes to loan forgiveness programs that may make it easier for student loan holders to seek relief (Cowley, 2021). The principal changes include greater oversight of loan servicers, more credit for payments that were previously disqualified, improving the Public Service Loan Forgiveness Program and more likelihood of a re-classification of loan status (for those whose loans may have been incorrectly placed into forbearance) (US Department of Education, 2022). Most importantly, President Biden announced the largest student loan forgiveness plan in US history by approving $10,000 in loan forgiveness for borrowers and $20,000 for borrowers who earned a Pell Grant while in college (US Department of Education, 2022). This monumental initiative will impact nearly 43 million people in the US and will cancel all student loan debt for about 20 million borrowers (The White House, 2022).

Students from low-income backgrounds are disproportionately impacted by student loan defaults (Hillman, 2014). There is evidence that students from these backgrounds are both more likely than other students to borrow and to be subject to predatory recruitment practices (Hillman, 2014). Poor retention rates are associated with negative outcomes for students from low-income families further exacerbating the widening differences in income and education in the US (Chetty, Friedman, Saez, Turner, & Yagan, 2017). According to the National Center on Education Statistics, 60% of students from high socioeconomic status backgrounds will earn a bachelor’s degree by age 25, while only 9% of students from the lowest income quartile will do the same (2019). The gap in graduation rates between students from low-income backgrounds and their wealthier peers has been found to be associated with economic inequality, such that students with higher levels of education make more than those with less education (Carnevale, Rose, & Cheah, 2011). Research done by the Equality of Opportunity Project (now Opportunity Insights) has shown that colleges and universities, such as Stony Brook University and the
City University of New York (CUNY) System, can make a big difference in moving students from the lowest income quartile to higher, and even the highest, income quartiles if they graduate (Chetty, Friedman, Saez, Turner, & Yagan, 2017).

There is growing attention in practice and in research to improving college student retention rates (Bowman, Miller, Woosely, Maxwell, & Kolze, 2019; King & Ndum, 2017; Millea, Wills, Elder, & Molina, 2018; Xu, 2017). In light of decreasing numbers of high school graduates in certain regions in the US, higher education institutions face greater competition for enrollments from shrinking pools of students (Howell, et al., 2021; National Center for Education Statistics, 2020). In terms of regions, high school graduates are projected to decrease in the Northeast and the Midwest and increase in the West and South through the 2028-9 school year (Hussar & Bailey, 2018). The trend of decreasing number of high school graduates in the US and in certain regions of the country is not due to decreasing graduation rates, but rather due to population changes in terms of where people live and how many children were born in a given year (Bransberger & Michelau, 2016).

Because of the decrease in the number of high school graduates, many higher education institutions in the Northeast and Midwest are being challenged with recruiting new students and maintaining their enrollments. In New York State, where the institution studied is located, the number of high school graduates is projected to remain stable over the next decade (Hussar & Bailey, 2018). However, there has been a steady decrease in enrollment at SUNY institutions over the last five years (SUNY, 2021). In addition, enrollment in New York State public colleges have shown a decrease dating to the onset of the Covid-19 pandemic (Warren, 2022). The enrollment decreases have created financial challenges for SUNY institutions. Enrollment impacts a significant part of higher education revenue streams, especially when considering students not only pay tuition, but residential college students also pay for housing costs, meal plans and other student fees that contribute to the college’s budget.
and increases in higher education costs, challenges with enrollment and retention raise financial challenges for many public higher education institutions (Mitchell, Leachman, & Saenz, 2019).

Retention and Persistence

While discussing college student success it is important to differentiate terms that are sometimes used interchangeably such as retention and persistence. The National Center for Educational Statistics differentiates retention and persistence by stating that “persistence refers to continued enrollment at any institution, whereas retention refers to continued enrollment at one institution” (Hussar & Bailey, 2018). From the perspective of a singular institution, retention is what is most important. At the campus level, the interest is to know what factors impact retention and what institutional interventions will be effective at increasing student retention. The Federal Government is able to track students’ academic progress at various institutions and therefore able to produce reports on student persistence (Chen, et al., 2019). Higher education institutions are also required by the 1990 Student Right to Know Act to provide to the Federal Government the percentage of students who complete degree programs within 150% of the normal time for completion (National Center on Education Statistics, 2020). The National Student Clearinghouse has also done research on understanding the changing student pathways in higher education, as today’s college students are more likely to attend multiple institutions compared to the past (2019). This study specifically examined students’ “intent to persist,” a measure obtained from responses to a question on the survey instrument asking about the likelihood of return to the college in the following semester. The intent to persist term in this study, therefore, can be understood to mean the likelihood of a student persisting at the same institution the following semester.

Understanding Retention

The reasons why students are not retained are varied and complex, but include factors such as pre-college characteristics, student/institutional congruence, student involvement, motivation, academic issues, family issues and financial issues (Watson & Chen, 2019; Xu, 2017). To understand
college student retention more thoroughly many researchers have developed their own models to explain retention such as Spady’s undergraduate dropout process model (1970; 1971), Tinto’s institutional departure model (1975; 1993) and Bean’s student attrition model (1979). In the next paragraphs, these retention theories will be described and compared with one another to gain a better understanding of the literature on retention.

The foundational work of most retention theories and models starts with the research of Spady in his development of the undergraduate dropout process model (1970; 1971). Prior to Spady, most theories of college student dropout focused on psychological factors that students possessed rather than sociological factors that examined the relationship between the student and the institution (Aljohani, 2016). Spady compared Durkheim’s theory of suicide with student retention such that both dropping out of college and suicide are forms of removing oneself from society (Burke, 2019). In Spady’s model, he explained college student retention by examining the interaction between student characteristics such as interests, attitudes and skills with the influences, expectations and environments of higher education institutions (Aljohani, 2016). The model’s assumption is that two main factors impacted a student’s decision to stay or leave an institution: the academic system, meaning grades and intellectual development and the second being the amount of support and congruence in the social system of the institution (Aljohani, 2016; Manyaga, Sithole, & Hanson, 2017; Spady, 1970). Thus, the better the student’s academic performance and congruence with the institution’s social system, the higher the likelihood that the student will be retained.

Building on Spady’s work, Tinto developed the institutional departure model to help explain the reasons why college students choose to leave college (1975). Tinto’s model, also known as the student integration model, is perhaps the most cited and influential theories of student retention in literature (Burke, 2019). Like Spady, Tinto posited that student departure is a result of the interaction between students and the academic and social system of their institutions (Aljohani, 2016). In a revised model,
Tinto (1993) identified three main sources of student departure, which are academic difficulties, inability of students to meet academic and workforce goals and failure to integrate into the social culture of their institution (Manyaga, Sithole, & Hanson, 2017). Tinto further posited that the process of students entering college is akin to people in tribal societies going through rites of passage (Burke, 2019). In this process, students experience three phases: separation (from their families); transition (into the institution); incorporation (into the academic and social elements of the institution) (Tinto, 1993). At the heart of Tinto’s model is the idea that the closer the fit between the student and the academic and social systems of their institution, the higher the likelihood the student will be retained.

Another student retention theory was Bean’s student attrition model (1979), which posited that student attrition is similar to workers leaving their workplaces. Unlike Spady and Tinto before him, Bean utilized workplace turnover rather than Durkheim’s theory of suicide to explain student departure, because he argued that the link between suicidal behavior and student dropout was not evident in past research (Aljohani, 2016; Bean, 1979). Bean argued that workers leave their jobs for the same reasons why students leave their institutions. Factors such as college grade point average, institutional satisfaction, value of education, student life engagement opportunities and organizational rules all have been found to be associated with a student’s decision to leave an institution (Burke, 2019). One of the major findings of Bean’s research was that a student’s institutional commitment is the most important variable in explaining student attrition (Burke, 2019).

Even though these models help to explain student retention from a theoretical standpoint, retention is such an institution specific phenomenon that institutions have developed their own methods of dealing with student retention (Aljohani, 2016). Institutions have tried to address these issues by developing mentoring programs, summer bridge programs, first year seminars, living learning communities and various other interventions aimed at retaining first year students (Habley, Valiga, McClanahan, & Burkham, 2010). In addition to being an institution specific phenomenon, college
student retention is also specific to various groups of students such as students of color, low-income students and first generation students (Banks & Dohy, 2019; Corrigan, 2003; Ishitani, 2006). Of particular importance in this study is the research around the retention of at-risk students.

Retention for at-risk students. In addition to researching retention for all college students, researchers and practitioners alike have also focused on “at-risk” students who are in danger of not being retained as a way of making the biggest positive impact on retention (Muraskin, Lee, Wilner, & Swail, 2004; Watson & Chen, 2019; Williams, Smiley, Davis, & Lamb, 2018). Researchers have specifically focused on the retention of “at-risk students,” such as low income and academically underprepared students (Corrigan, 2003; Laskey & Hetzel, 2011; Thayer, 2000). These two groups of students face considerable disadvantages in terms of college retention and graduation. Students in these groups differ from their peers with respect to being able to pay for college, being prepared for college-level academic work, and understanding how to navigate the college environment (Muraskin, Lee, Wilner, & Swail, 2004; Reason, 2003). These factors contribute to the reason why at-risk students have lower retention rates compared to their wealthier, more academically prepared peers (Muraskin, Lee, Wilner, & Swail, 2004; Reason, 2003).

Opportunity programs. One of the interventions that the Federal Government, states, and individual higher education institutions have established to help retain at-risk students is the opportunity program (Laskey & Hetzel, 2011; Chaney, 2010; Yousif, 2009). For example, one opportunity program is the Federally funded Student Support Services Program, which provides holistic support for students including tutoring, study skills along with advising for low-income college students that are also first-generation students or who have disabilities (US Department of Education, 2022). Although each opportunity program has specific guidelines and eligibility, most programs provide a suite of services such as bridge programs, peer mentoring, developmental courses, counseling, financial assistance as well as workshops in order to increase the retention and success of students enrolled in the program.
In addition to providing services, opportunity programs also create a sense of community and shared experiences that may also have a positive impact on retention (Tovar, 2015; Yousif, 2009). Research has shown that students enrolled in opportunity programs have higher levels of retention compared to similar students at the same institutions that are not enrolled in these programs (Chaney, 2010; Jones, 2016; Shindledecker, Carollo, & McConnaughy, 2013).

**The role of counseling in opportunity programs.** Prior research has proven that opportunity programs have a positive impact on the retention rates of their students (Chaney, 2010; Yousif, 2009). However, not much is known about what specific services of opportunity programs have an impact on student success. Even though there is a limited amount of research on the role of opportunity program counseling on student retention, findings point to an overall positive impact. One study that examined community college opportunity program students found that opportunity program counseling was the most important factor that impacted retention (Yousif, 2009). Tovar (2015) examined Latinx students enrolled in an opportunity program and found that greater interaction with academic counselors increased students’ intent to persist. These studies are consistent with the research on student engagement, which finds that increased contact with institutional agents has a positive impact on retention (Kuh, Shoup, Kinzie, & Gonyea, 2008; Xiao, Bradley, & Lee, 2020).

**College Student Mattering**

One mechanism through which opportunity programs may have an impact on student retention is through developing a sense of mattering for at-risk students. Mattering is defined as “the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, 1981, p. 161). This feeling is essential to a student’s experience of connection to their institution as it increases the likelihood that they would be retained by their college or university (Schlossberg, 1989).
Rosenburg and McCullough (1981) were the first researchers to adopt the term mattering. Their theory of mattering was broken down into two forms: interpersonal and general. Interpersonal mattering was described as mattering to a specific person whereas general mattering referred to mattering to groups of people (1981). They defined mattering as having four elements (Rosenburg & McCullough, 1981, pp. 164-65):

1. Attention: “the most elementary form of mattering is the feeling that one commands the interest or notice of another person”;
2. Importance: “to believe that the other person cares about what we want, think, and do, or is concerned with our fate is to matter”;
3. Ego-extension: “refers to the feeling that other people will be proud of our accomplishments or saddened by our failures and dependence”;
4. Dependence: “having people depend upon us and depending on other people”.

Rosenburg and McCullough’s research focused on the psychological impacts of mattering of adolescents. They found that adolescents who feel cared for experienced fewer feelings of marginality and were less depressed. Based on their seminal work, the concept of mattering has been utilized in other studies to understand more about how people relate to others and their environment in general.

Using Rosenberg and McCullough’s concept of mattering, Schlossberg developed her theory of mattering and marginality (Schlossberg, 1989). Her theory states that mattering and marginality are polar opposites and that in order to increase involvement and learning higher education institutions should do all they can increase students’ feelings that they matter. In addition to Rosenburg and McCullough’s four conditions of mattering (attention, importance, ego extension and dependence), Schlossberg added a fifth condition for mattering, appreciation (Schlossberg, 1989). Her interviewees who did not feel appreciated also felt liked they mattered less, so Schlossberg added this condition to
her mattering theory. Based on her research, Schlossberg, Lasalle and Golec (Schlossberg, Lassale, & Golec, 1990) developed the Mattering Scales for Adult Learners in Higher Education. This survey instrument was designed to assess levels of mattering for adult learners in five areas: administration, advising, peers, multiple roles and faculty.

Since the work of Schlossberg, there have been other researchers that have utilized the theory of mattering and marginality in their respective fields. In particular, there have been studies to understand the relationship between mattering and mental health. Taylor and Turner (2001) researched mattering’s relationship to depression. They found in their study that mattering is predictive of depression for women, but not for men. Dixon Rayle and Myers (2004) studied the role of mattering and adolescent wellness and found that mattering explained a significant portion of the variance in wellness. Elliot, Colangelo and Gelles (2005) examined the relationship between mattering and suicidal ideation and found that those who felt that they mattered were significantly less likely to consider suicide. In addition to mental health there have also been studies on mattering in other fields such as employment (Connolly, 2000), religion (Lewis & Taylor, 2009), romantic relationships (Mak & Marshall, 2004), aging (Flett & Heisel, 2021) and criminal justice (Lewis D., 2017).

**The impact of mattering on retention.** The concept of mattering has been used in many different fields to help understand the importance of mattering and its impact on human behavior. Extending this research on mattering as it relates to retention of college students, the present study analyzed the relationship between student mattering and likelihood of retention for students enrolled in a public, rural, four year, liberal arts college in the Northeast.

Review of the literature on retention indicates that “mattering” matters, as evidenced by findings that showed the importance of members of an institution caring for students and its positive impact on student retention (Jones, 2016; Yorke & Thomas, 2003). The theory of mattering and
marginalization was used to understand the relationships that students have with various campus actors including instructors, fellow students, and counselors/advisors (Dixon-Rayle & Chung, 2008; Tovar, 2015). The theory was also used to understand how a student’s level of mattering is related to their likelihood to persist at their current institution the following semester (Dykes, 2011).

Since Schlossberg’s seminal work on marginality and mattering (1989), there has been further research to substantiate mattering’s role in terms of college student retention (Dykes, 2011; Kent, 2004; Tovar, 2013). Kent examined the impact of mattering on adult student persistence and found that mattering has a positive impact (2004). Dykes (2011) researched mattering for low-income and first generation transfer students and found that mattering experienced from faculty members and students perceiving that the institution was aware that students had competing demands were predictors of student persistence. Tovar (2013) also studied mattering and community college students and he found that mattering had a positive impact on students’ intent to persist. Tovar’s work is of particular importance to this study, as it examined how mattering students experienced from college staff impacted persistence, which is the focus of this research study.

In addition to studying the relationship between mattering and retention for various populations of higher education students, research has also examined college student mattering in relation to various groups such as faculty, advisors, and friends and family. As discussed previously, the work of Rosenberg and McCullough (1981) separated mattering into two parts: general mattering and interpersonal mattering. Studies have examined interpersonal mattering as it relates to the levels of mattering a student experienced in regard to a specific person at their institution. Marshall et al. (2009) studied perceived levels of mattering for university students and their friends and family members. They found that women had higher levels of perceived mattering to parents and friends. They also found that living arrangements were associated with mattering to friends, but not parents. Schneider (2006) examined levels of mattering between doctoral students and their faculty advisors and found that
higher mattering levels had a positive impact on the student’s commitment to complete the program in one case, but not the other. Latopolski (2018) studied the relationship between undergraduate students and their academic advisors and found that students experienced mattering through small, nuanced interactions they had with their advisors. These studies shed light on how mattering to institutional actors impacted students’ levels of mattering.

**Mattering as a product of opportunity program counseling.** Furthering this research, the present study examined the interpersonal levels of mattering that at-risk students experience with their opportunity program counselors.

Opportunity program students are usually by definition categorized as marginalized with respect to academics, finance, cultural minority, or broadly in terms of ability or gender (Bailey B., 2005; Gomez, 2008). For example, students in the EOP Program in the SUNY System have to be low-income and academically underprepared to be eligible to participate (SUNY, 2022). As such, opportunity programs have developed interventions to help these marginalized students succeed in college. One of the most important interventions of opportunity programs has been found to be the counseling services provided by staff counselors (Corrigan, 2003; Yousif, 2009). Opportunity Program counselors provide personal, academic, financial and career counseling to a caseload of students. However, as Yousif points out “[t]he responsibilities of counselors often extend well beyond merely assisting with course choices. More often than not, it involves providing support for resolving a host of social and emotional obstacles... (Yousif, 2009, p. 2).” Often times opportunity program students, who are often first-generation students who lack parental guidance in regards to succeeding in college, rely heavily on their counselors for information, advice and direction when it comes to making important decisions regarding their education. Consider the statement of one opportunity program student from one qualitative study (McKenzie, 2008, p. 96):
“They (opportunity program staff and counselors) were always encouraging you to keep going no matter what. It helped me to persist knowing that someone else was interested in me succeeding besides myself. Someone else wanted me to finish just as bad as I did and they were willing to help me. And when I thought about quitting, they would always say something that would encourage me not to quit. I benefited from the counseling and encouragement from all the staff within the program. The program has played a strong role in helping me to develop emotionally and spiritually and to obtain my goals.”

Although counseling is seen as a vital service provided by opportunity programs, there has not been much research conducted to specifically examine the role it plays in increasing the persistence rate of its students. Thus, this study examined counseling in one opportunity program and its relationship to the mattering and persistence of its students.

EOP Counselors try to develop a personal, yet professional relationship with students that fosters a feeling of the student being cared for because of counselors’ own genuine interest in helping students and also with the goal of the student achieving academic, personal and career success (Jones, 2016). Developing personal relationships with students is somewhat a common sense approach to increasing student success, but research to support this practice of developing caring counselor/counselee relationships in higher education opportunity program needs further examination (Tovar, 2015). Although the literature doesn’t specifically address the counselor/counselee relationship in the retention of low-income and academically prepared students, there is research to show that students who develop relationships with a member of the campus have a higher likelihood of being retained. For instance, Ferguson (2010) stated that “deeper connection with individuals at the institution, forged through personalized and systematic contact and follow-up, will affect the desired end-product outcomes of retention, persistence, and graduation” (p. 72).

More research is needed to fully understand whether and how opportunity program counseling relationships impact retention. Unfortunately, there is a dearth of literature on understanding the counselor/counselee relationship in an academic setting and especially opportunity programs. Of note is
that it is difficult to find literature about developing counselor/counselee relationships was because of
the terminology used. A review of the literature on “counseling” often pointed in the direction of clinical
counseling, not academic counseling. Other search terms such as advising or mentoring were helpful to
draw upon but did not explain the relationship developed between the student and opportunity
program counselors. Advising relationships tend to focus on technical aspects of college such as
academic, financial or career advising, so a limited review of the literature was undertaken to specifically
focus on the relationships students formed with counselors in opportunity programs. The difficulty with
search terms is important to highlight because it points to the lack of literature on the relationship
between college students and college personnel and more specifically between opportunity program
students and opportunity program counselors.

The theories and concepts that are utilized in this study help to explain how EOP counseling
might impact mattering levels of students enrolled in EOP and how that intervention could influence
student persistence. In addition, Schlossberg’s theory of mattering and marginality (Schlossberg, 1989)
was used to understand how EOP students’ mattering levels are impacted by other actors such as
faculty, advisors as well as friends and family. The literature on college student retention, specifically the
work of Spady, Bean and Tinto (Bean, 1979; Spady, 1971; Tinto, 1993) described above, was utilized to
understand the many factors that impact retention as well as the relationship and experiences that
institutions have with students and vice versa. Taken together, their work provided a lens in which to
view this study as well as the conclusions that might be drawn from the data that was collected. The
utilization of these theories in this study is of particular importance to higher education policy makers,
administrators and opportunity program personnel to understanding more about college student
retention.

The Current Study: The role of mattering in retention

This study examined whether mattering might contribute to the retention of students enrolled in
an EOP Program as well as other students at the same institution not enrolled in an opportunity program. Schlossberg’s theory (Schlossberg, 1989) posits that the more students feel a sense of mattering at the higher education institution they are attending, the more likely they are to be retained at that institution. As such, the thesis of this study is that higher mattering levels will be associated with higher student retention for both EOP and Non-EOP students at a public, rural, four-year, liberal arts college in the Northeast. Two research questions were considered:

1. Do opportunity program students experience mattering (overall, and with respect to counselors/advisors, faculty, and other students) at higher levels compared to non-program students?

2. Do students who experience a higher level of mattering (again, generally, and with respect to faculty, counselors/advisors, and other students) have higher levels of intent to persist?

The research questions for this study evaluated the levels of overall mattering that college students experience as well as mattering particularly in relation to counselors/advisors, instructors, and fellow students at their institution. As Tovar, Simon and Lee (2009) pointed out, “whereas a general feeling of mattering to the college may be indicative of students’ general place within the university or college, it is their relationship to specific others (e.g., faculty, counselors/advisors, other students) that may best attest to their feelings of mattering or not mattering” (p. 159).

In opportunity programs for at-risk students, the role of the program counselor has been stressed as critical (Jones, 2016). Mattering with regard to counselors/advisors is another relationship that is vital to student retention and to students’ sense of mattering. The term counselor and advisor are used together in this study, as higher education institutions have different job titles for similar positions responsible for the advisement, guidance and support of students. The research has been clear that college student support personnel have a positive influence on academic success and student
retention (Engrstrom & Tinto, 2008; Hasler, 2013; Laskey & Hetzel, 2011). Also, in the literature on mattering, counseling and advising relationships has been shown to have a positive impact on the mattering levels of undergraduate college students (Latopolski, 2018; Smith N. , 2019). Particularly in opportunity programs, the role of counselors/advisors are critical for the support and success of students enrolled in these programs because they provide not only academic advisement, but also personal counseling to help students navigate the institution as well as other obstacles they may face (Gomez D. , 2008; Tovar, 2015; Yousif, 2009).

In addition to mattering with respect to counselors, this study also considered the mattering that may be associated with faculty. Often times the main point of contact between students and their higher education institution is the relationship they have with their faculty members, so that relationship is critical to understanding how students experience mattering (Tinto, 2007). Research on faculty/student relationships has shown to have a positive relationship with student success and college student retention (Couture, 2018; Jarecke, 2020). The theoretical reason that faculty play a large part in student retention is because student-faculty interaction represents social integration, which is a key component of Tinto’s Theory of student persistence (Dwyer, 2017; Tinto, 1993). The role of faculty in supporting retention for marginalized students, such as first generation students and students of color, has been shown to be particularly important (Harris, 2018; Miller, 2020).

As discussed, the relationships students develop with counselors/advisors as well as faculty members are vital for student mattering and retention. The relationships students have with their fellow students are also important to mattering and to retention. As Tinto (1993) described in his student integration model, students who are connected to their higher education institution both academically and socially are more likely to be retained. Research has shown the importance of the social integration part of Tinto’s model as students who engage socially with their peers in college have higher levels of retention compared to those students are more socially isolated (Bai & Pan, 2010; Stinespring, Kench, &
Peer relationships formed with roommates, fellow students in academic programs and co-curricular groups were found to have positive impacts on retention (Stinespring, Kench, & Borja, 2018). Particularly for college freshman, but important for all students, the establishment of relationship with peers allows students to be included in social groups, provides a sense of connection and increases their likelihood to return to the institution the following semester (Stinespring, Kench, & Borja, 2018).

**Definition of Terms**

**EOP Counseling.** The student support services provided by an EOP counselor to an EOP student.

**Intent to Persist.** The likelihood of students returning to the same institution the following semester.

**Counselors/Advisors.** Student support personnel at the research site that are tasked with providing guidance and advice to students.

**Opportunity Program student.** A student enrolled in the EOP program at the research institution.

**Mattering.** The feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension (Rosenburg & McCullough, 1981, p. 161).

**Conclusion**

This chapter reviewed the literature on college student retention, mattering and marginality as well as opportunity programs. In regards to college student retention, the chapter specifically covered the importance of college completion, retention theories, retention of at-risk students, the role of institutional actors in retention and the various retention initiatives employed by higher education institutions to increase student success. The chapter also reviewed Schlossberg’s (1989) theory of mattering and marginality, the literature on mattering and specifically the role mattering plays in the retention of college students. The research on the role of opportunity programs in college student
retention was also reviewed and discussed. The next chapter describes the data, sample, and methodology used to undertake the study.
Chapter 3
Methodology

This chapter explains the methodology used to collect and analyze data related to mattering levels and retention for EOP and non-EOP students at a public, four-year, rural, liberal arts, higher education institution in the Northeast. First, it details the research design including the research questions and variables that will be studied. Then it describes the study population, the research site, EOP and non-EOP student demographics. The chapter also details the data collection procedures including the recruitment of study participants, consent, instrumentation and instrumentation scoring. Lastly, the chapter explains how the study data was analyzed and also describes the limitations of the study.

Purpose of Study

This study sought to understand the specific role of mattering in the retention of EOP and non-EOP students at a public, rural, four-year liberal arts institution. Based upon the review of the literature on opportunity programs, academic advising/counseling, and retention, there is limited research about the possible mechanisms through which such programs might impact the retention of at-risk students. Further, despite promising findings about the role of “mattering” in student retention and the possible role of opportunity program counselors in fostering a student’s sense of mattering, little is known about how mattering may play a role in the retention of students enrolled in opportunity programs. Thus, the purpose of this study is to assess mattering levels of college students and to better understand the relationship between mattering and retention for opportunity program students and non-opportunity program students. Specifically, it studied non-EOP students to determine their levels of mattering compared with EOP students. Additionally, the study ascertained if mattering to others, specifically, counselors/advisors, faculty, and students, was associated with increased student persistence.
**Research Design**

The design of this study is correlational, using a survey research design. This design has the goal of describing a phenomenon and its characteristics (Nassaji, 2015), and allows researchers to gather data from a small group of respondents with the intent of generalizing results to a larger population (Cresswell, 2012). In addition, survey methods also allow researchers to collect a large amount of information, in a timely manner, at low cost (Daniels, 2017). Although there are many benefits to utilizing a survey research design, there are some drawbacks such as survey choices possibly not capturing respondents’ actual sentiments, potential low response rates and respondents not answering survey questions accurately (Daniels, 2017). Further, by using a correlational design, it is possible to evaluate relationships among the variables under study, but not possible to establish whether those relationships are causal.

**Research Questions and Hypothesis**

The purpose of the survey in this study is to ascertain the relationship between students’ mattering levels and retention at their current institution. Data were collected in order to answer the following research questions:

1. Do opportunity program students experience mattering (overall, and with respect to counselors/advisors, faculty, and students) at higher levels compared to non-program students?

2. Do students who experience a higher level of mattering (again, generally, and with respect to faculty, counselors/advisors, and students) have higher levels of intention to persist?

For the first research question, the dependent variables are EOP and non-EOP students’ total mattering levels, as well as mattering levels in specific subscales associated with instructors,
counselors/advisors, and students. The independent variable is participation or non-participation in the EOP Program. It is hypothesized that students enrolled in EOP have higher levels of mattering, overall, compared to non-EOP students. The reason for this hypothesis is because prior research has suggested that the opportunity program experience may well engender a sense of mattering to participants (Cole, Newman, & Hypolite, 2020; Gomez, 2008). To test the hypothesis for Research Question 1, the observed differences in means of the overall mattering scale and sub-scale scores between EOP students and non-EOP students were submitted to one-tailed t-tests.

For the second research question, the dependent variable is intention to persist at the current institution and the independent variables are total mattering and mattering across the survey’s specific subscales associated with instructors, counselors/advisors, and students. It is hypothesized that students who have higher levels of mattering will have higher levels of intention to persist, which is suggested by previous studies that have shown a positive correlation between mattering and retention (Dykes M., 2011; Isaacson, 2008; Schlossberg, 1989). To test if students who experience a higher level of mattering (again, generally, and with respect to counselors/advisors, faculty, and other students) have a higher level of intention to persist at the institution, correlation analyses were conducted.

In addition to the first two research questions, supplemental analysis was conducted to answer additional questions pertaining to the persistence and mattering:

1. Is there a relationship between intent to persist and actual persistence for the total sample as well as for the separate EOP and non-EOP student samples?
2. Is there a relationship between overall, counselor/advisor, student and/or instructor mattering and actual persistence for the total sample as well as for EOP and non-EOP student samples, separately?
For the first supplemental research question, the dependent variable is actual persistence and intention to persist is the independent variable. It is hypothesized that there is a positive relationship between intention to persist and actual persistence, such that increases in intention to persist are correlated with actual persistence. This hypothesis is based on previous research that shows the positive relationship between intention to persist and actual persistence (Tovar, 2013; Bean, 1982). To answer the first supplemental research question, means of intention to persist for persisters and non-persisters were calculated for the total and non-EOP sample were compared. For the EOP sample, there was only 1 student that did not persist, so means could not be determined. Due to the limited number of non-persisters in the total sample and the non-EOP sample, statistical significance of these differences could not be calculated.

For the second supplemental research question, the dependent variable is actual persistence and independent variables are overall, counselor/advisor, student and instructor mattering. It is hypothesized that there is a positive relationship between mattering levels and actual persistence, such that increases in mattering levels have a positive impact on actual persistence. This hypothesis is based on previous research that shows a positive relationship between mattering levels and actual persistence (Dykes M., 2011; Isaacson, 2008; Schlossberg, 1989). To answer the second supplemental research question, means of overall, student, instructor and counselor/advisor mattering were calculated for persisters and non-persisters for the total and non-EOP sample and were compared. For the EOP sample, there was only 1 student that did not persist, so means could not be determined. Due to the limited number of non-persisters in the total sample and the non-EOP sample, inferences of statistical significance of these differences are not made.
Research Site

This study was conducted at a public, four-year, rural, liberal arts institution in the Northeast. This college was selected because it was representative of the average enrollment and academic profile of liberal arts college in the SUNY System (SUNY, 2022). The college is part of a comprehensive, public state system of higher education and enrolls about 6,000 undergraduate students and 450 graduate students (College Navigator, 2021). In terms of demographics related to enrollment, the college enrolls 38% male and 62% female students and 98% of all students enroll full-time (College Navigator, 2021). Regarding ethnicity, 70% of undergraduates are white, 16% Hispanic/Latino, 5% Black or African American, 2% Asian, 2% two or more races and 1% American Indian or Alaska Native. Ninety-eight percent of undergraduate students are 24 and under and 98% of students are also residents of New York State (College Navigator, 2021). The college is a moderately selective institution as it accepted 56% of freshman, undergraduate applicants for the fall 2019 semester (College Navigator, 2021). The percentage of freshman undergraduates that started in the fall 2018 and returned in the fall 2019 semester was 80% and the college’s 6-year graduation rate was 76% (College Navigator, 2021). The average high school GPA for the fall 2020 freshman class was 90.9, the average SAT score was 1126 and the average ACT score was 23 (First Year Admissions, 2021). Its Carnegie classification is Master College and Universities: Medium Programs (College Navigator, 2021).

EOP Program Demographics

The EOP Program at this institution is one of 50 EOP Programs in the public state system of higher education (SUNY, 2021). The program has an enrollment of 225 students who come from various geographic locations in the state. In the fall 2020 semester, there were 65 freshmen, 51 sophomores, 62 juniors and 47 seniors (Educational Opportunity Program, 2020). Regarding race/ethnicity, 32.9% were Hispanic, 29.3% were Black, 24.4% were multi-racial/other, 10.2 were White, 2.7% were Asian and .4% were Native American/Alaskan (Educational Opportunity Program, 2020). Thus, a large majority of
students in the program are underrepresented minorities. The breakdown of EOP students according to
gender is 58.6% female and 41.4% male (Educational Opportunity Program, 2020).

EOP is a special admissions program for students that are academically underprepared in
comparison to the generally admitted student. Academic under-preparation is defined as students who
do not meet the general admissions guidelines of the institutions they are enrolled in and thus have to
be admitted through special admissions programs such as EOP. The academic profile of the participants,
as per EOP admissions guidelines, would reflect SAT/ACT scores and high school GPA’s that are below
the general admissions requirements for the institution. Regarding family income, all students must
have income that is 185% or lower of the Federal poverty guidelines (SUNY, 1970). In comparison,
generally admitted students at this institution are 70% are white, the majority meet the academic
admissions requirements and only 38% of students receive Pell Grants, which are grants for low-income
students (College Navigator, 2021). Thus, the EOP student population is more racially/ethnically diverse,
lower income, and less academically prepared compared to the generally admitted students at the
institution.

Study participants

For this study, all students enrolled in the EOP Program at the college during the Spring 2021
semester, with the exception of current seniors who are expected to graduate in May 2021 or August
2021, were recruited to participate in this study. Graduating seniors were excluded from the study as
those students were not expected to persist at the institution after completing the current semester.
Excluding EOP seniors (who were expected to graduate in the current year, and so would not be
expected to persist at the institution), there were 146 EOP students who were invited to participate in
this study. In addition to EOP students, a group of 600 non-EOP students at the research institution were
randomly selected by the Institutional Research (IR) office to participate in this study. Non-EOP seniors
were also excluded from the survey, owing to the high likelihood of graduation (and so not be expected to persist at the institution). All students participating in the study were 18 years old and older.

**Instrumentation and Instrumentation Scoring**

**College Mattering Inventory (CMI).** The CMI was developed to measure the level of mattering that students experience at their higher education institution (Tovar, Simon, & Lee, 2009). The CMI was chosen as the survey instrument for this study as it was specifically designed for assessing the mattering levels of diverse college students (Tovar, Simon, & Lee, 2009).

The CMI is composed of 29 questions about the respondent’s experience at “X college.” These questions comprise six subscales: general mattering; mattering versus marginality; mattering to counselors; mattering to instructors; mattering to students; perception of value. The overall scale (29 items) and the three sub-scales measuring mattering from counselors, mattering from instructors, and mattering from students were used for analysis in this study. Each subscale has a different number of questions such that mattering to counselors has five questions, mattering to instructors has four questions and mattering to students has three questions. Each of the survey questions provides respondents with a Likert scale to use in describing the degree to which the statement is representative of their experience. The Likert responses are: “Not at all,” “Slightly,” “Somewhat,” “Moderately” and “Very Much.” Each answer is assigned a value ranging from 1-5 such that “Not at all” responses are assigned 1 point and “Very Much” is assigned 5 points. A “total mattering” score is calculated by adding the responses to all 29 items. Individual subscale scores were calculated by adding the scores from items in the relevant subscale.

In terms of reliability of the CMI, Tovar, Simon and Lee (2009) reported a Cronbach’s alpha coefficient of internal consistency of .91 for total mattering, which is all 29 questions of the survey. For
the three subscales of the survey, reliability was found to be .84 for mattering to counselors; .76 for mattering to instructors; and .77 for mattering to students (2009).

Validity of the CMI was assessed using the Sense of Belonging Scale (SOBS) developed by Hoffman, Richmond, Morrow and Salomone (2002-2003). Results found small to medium significant scale intercorrelations between the CMI and the SOBS, which supports the survey’s convergent evidence of external validity (Tovar, Simon, & Lee, 2009). All correlations were significant at the p<.01 level, except the correlation between mattering to counselors (CMI) and perceived isolation subscales (SOBS), which was found to be significant at the p< .05 level.

For the purposes of the current study, the CMI was modified to accommodate the varied ways in which a “counselor” might be encountered by program and non-program students. The term “counselor(s)” was modified to “counselor(s)/advisor(s),” in survey items 6, 7, 10, 18, 27. This change was made to include a broader range of professional staff that provide advisement to students beyond counselors.

**Intent to persist.** The measure of “intent to persist” was selected based on prior research on actual student persistence (Cabrera, Miner, & Milem, 2013; Bean, 1982). Intent to persist was assessed using a single question, “It is likely that I will re-enroll at this college next fall.” This question was chosen as it has been previously used in prior studies where it was shown to be highly correlated with actual persistence (Bean, 1982). A Likert scale was used for responses to ascertain students’ likelihood of returning to the institution for the fall 2021 semester. In addition, an open-ended question was added to ask students to explain their reason for choosing their likelihood to persist response. The survey was scored based on the Likert scales from a 1 for “Not at all” responses and a 5 for “Very much” responses.
Data Collection Procedures

Before beginning the collection of data, the researcher obtained approval from the Institutional Review Board at the University at Albany to conduct this study and to survey students. In order to recruit participants outside of the EOP Program, the researcher collaborated with the research site’s IR office to identify a random sample of non-EOP students to participate in the study. To protect student confidentiality, only IR personnel were able to identify individual students who responded to the survey. The researcher did not know the identity of the respondents or who had not responded to the survey to maintain the confidentiality of study participants.

Once students were selected, the IR office emailed non-EOP students along with the EOP students, at their official college email address, the revised College Mattering Inventory (rCMI), and the intent to persist question. Those selected for the sample received the email invitation from the campus IR office to participate in the middle of May 2021. Follow up emails were sent by the IR office weekly until the end of June 2021 to participants that did not respond to the survey. The survey questions were presented via Qualtrics, which is a survey software used at the research institution. Permission was granted by developers of the CMI to use the survey for this study (Appendix C). Included in the survey emailed to students was a “Consent to Participate in a Research Study Form” (Appendix A) detailing the risks, benefits, confidentiality and costs/compensations of participating in the study. Students were also informed that they have no obligation to participate in the study and that their responses will be kept confidential. They were also informed that the survey would take 15 minutes to complete. In addition, students were also informed that if they complete the rCMI they are eligible to win a $500 Amazon Gift card.

As noted above, the researcher did not have access to the names of the respondents, instead, a unique identification number was provided by the IR office to identify each student and link the survey
data to demographic data about factors that impact persistence, (including high school GPA, SAT/ACT scores, gender, age, first generation college status, race, expected family contribution, major, class year, number of credits completed and college residential status) that the institution possessed.

Of the 146 EOP students invited to complete the rCMI, 33 did so for a response rate of 22.6%. The response rate for non-EOP students was 19%, with 114 out of 600 students invited to complete the rCMI doing so.

Data Analysis

A preliminary analysis was conducted to evaluate possible relevant comparability and differences between the EOP and non-EOP groups that may need to be considered in the data analysis for the two research questions. Descriptive statistics were calculated for the demographic and academic variables likely to impact retention, including high school GPA, SAT/ACT scores, gender, age, first generation college status, race, expected family contribution, major, class year, number of credits completed and college residential status. Any of these variables with an association with the major variables of interest found to be significant beyond chance (using the Bonferroni correction, dividing the alpha of .05 by the number of tests) was included as a first step variable in the analysis for the two research questions. The only variable that was found to be significant using the Bonferroni correction was the students of color variable.

Following this preliminary analysis, data from the rCMI and demographic information were used to answer the study’s two research questions. The hypothesis for Research Question 1 was that EOP students will have higher levels of total mattering, mattering to counselors/advisors, mattering to instructors, and mattering to students compared to non-EOP students. For Research Question 2, the hypothesis is that higher levels of total mattering, mattering to counselors/advisors, mattering to
instructors and mattering to students would be positively correlated to retention for both EOP and non-EOP students.

For Research Question 1, the means for the relevant scales of the rCMI for EOP and the non-EOP student groups were compared to assess whether or not there is a difference in overall mattering levels, as well as mattering across the three subscales (instructors, counselors/advisors and students). A one tail t-test was used to compare means for overall mattering as well as the three subscales.

In order to answer Research Question 2, correlational analysis was utilized to determine the relationship between mattering levels (overall scale, and the three subscales) and retention for both EOP and Non-EOP students. This “total sample” analysis was followed by an analysis that considers EOP status as a control variable.

Study Limitations

This study is limited in several ways. First, the relatively small sample size of the students in this study limits the external validity of the results to larger populations. Secondly, since this study is located at a public, four-year, liberal arts institution in the Northeast, generalizability may also be limited to only include similar type higher education institutions. Thirdly, students may not have accurately responded to the survey questions for various reasons, which may limit the internal validity of the study. Given the correlational nature of the study design, it is not possible to establish causation in any relationship detected. In addition, the survey took place during an international pandemic, which has caused significant changes in higher education (Piotrowski & King, 2020); the possible impact of these changes on survey responses were considered. In addition, the pandemic has caused higher student attrition rates, which is taken into consideration in interpreting the results of the study (Marken, 2021). The challenges of the pandemic include difficulty with courses being delivered in an online modality, decreased academic and social engagement, family issues as well as mental health issues (Weissman,
Lastly, the survey was administered towards the end of the academic year during and after final examinations, which may have impacted response rates.

Conclusion

This chapter explained the methodology used to collect and analyze data related to mattering levels and retention for EOP and non-EOP students at a public, four-year, rural, liberal arts higher education institution in the Northeast. The chapter also detailed the research design that was chosen as well as the study research questions and the hypothesis for each question based on past research. Additionally, this chapter provided information on the research site, study participants, consent, instrumentation and instrumentation scoring. The next chapter will describe the results of the data collection and the analysis methods used to interpret the data and also provide tables and charts to further describe the results of the data collection.
Chapter 4
Results

The purpose of this study was to assess differences in the levels of mattering experienced by EOP and Non-EOP students as well as evaluate the association between mattering and intention to persist for students at a rural, public, four-year, liberal arts college in the Northeast. Mattering, defined as the “feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, 1981, p. 161) manifests with respect to counselors/advisors, fellow students, and instructors. Past studies have found that mattering contributes to the persistence of students (Butcher, 1997; Isaacson, 2008; Kent S., 2004) and that intention to persist has been shown to be correlated with actual persistence (Bean, 1982).

This chapter presents results of data analyses undertaken to inform the study’s two research questions:

1. Do opportunity program students experience mattering (overall, and with respect to counselors/advisors, faculty, and other students) at higher levels compared to non-program students?

2. Do students who experience a higher level of mattering (again, generally, and with respect to counselors/advisors, faculty, and other students) have a higher level of intention to persist at their current institution?

In addition to the first two research questions, supplemental analysis was conducted to answer additional questions pertaining to the persistence and mattering:

1. Is there a relationship between intent to persist and actual persistence for the total sample as well as for the separate EOP and non-EOP student samples?
2. Is there a relationship between overall, counselor/advisor, student and/or instructor mattering and actual persistence for the total sample as well as for EOP and non-EOP student samples, separately?

**Demographic and Academic Characteristics**

Tables 1 and 2 provide a description of the demographic and academic characteristics of the sample obtained for the study. The sample consists of respondents to a survey administered in May and June of 2021 to freshman, sophomores, juniors and seniors selected randomly from the relevant student population for those not participating in EOP and all of those identified as EOP students. All respondents had completed at least one semester at the institution. Graduating seniors were excluded from the study as they are on track to graduate, and so would not likely persist in studies at the institution in the following semester. It is also important to note that during the spring 2021 semester, most classes switched from primarily in person delivery to a remote, on-line modality owing to a Covid-19 outbreak at the institution. Selected demographic and academic information from administrative student records were attached to the participants’ survey responses to the revised College Student Mattering (rCMI) inventory and Intention to Persist item. The descriptive statistics presented here were calculated for respondents with available data for each of the demographic and academic variables of interest. If demographic or academic data were missing in a particular category, those students were excluded from the calculations presented in Tables 1 and Table 2.

As shown in Tables 1 and 2, the sample was primarily female (70.8%), and, on average, about 20 years old, in their junior year of study, primarily living off campus and taking classes fully online. About a third (32%) of the total sample were first-generation college students, with more first-generation students in the EOP sample than in the non-EOP sample (49.5% vs 27.2%). The EOP sample was
composed almost completely of students of color (97%), while students of color comprised just over a quarter (28%) of the non-EOP sample.

The total sample’s academic performance in college to date was, on average, in the “B” range (3.1 cumulative GPA). Pre-college academic indicators for the total sample showed a high school grade point average in the “B” range as well (90.8), and standardized test scores just under 1100 for SATs (1086). For the non-EOP sample, precollege academic profiles were considerably higher than for the EOP sample. High school GPA for the non-EOP group was higher (by over 6 percentage points), SAT scores were higher (174 scale points) and ACT scores were higher (7 scale points) compared with EOP students (although the number of respondents in the sample for whom ACT scores are available is small). The Federal Expected Family Contribution (EFC), for the EOP sample was notably lower than those for the non-EOP sample ($318 EFC for EOP and $19,128 for non-EOP), indicating that EOP students came from families with less financial means.

Taken together, the pre-college academic indicators for non-EOP students in the sample parallel those for the larger student population at the current institution. With respect to the institution as a whole, for entering freshmen in 2020, the middle 50% of high school GPAs ranged from 87 to 93 and the middle 50% of SAT scores ranged from 1050 to 1180 (SUNY, 2022). In addition, the EOP pre-college academic profile in the sample is slightly higher compared to the profile of all entering freshman EOP students at the institution, for whom the middle 50% of high school GPAs ranged from 81 to 84 and middle 50% of SAT scores ranged from 890 to 990.
Table 1. Descriptive statistics for categorical demographic variables

<table>
<thead>
<tr>
<th></th>
<th>Total Sample (N=147)</th>
<th>EOP (N=33)</th>
<th>Non-EOP (N=114)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>29.2%</td>
<td>36.4%</td>
<td>27.2%</td>
</tr>
<tr>
<td>Female</td>
<td>70.8%</td>
<td>63.6%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students of Color</td>
<td>44.3%</td>
<td>97.0%</td>
<td>28.0%</td>
</tr>
<tr>
<td>Student Not of Color</td>
<td>55.7%</td>
<td>3.0%</td>
<td>72.0%</td>
</tr>
<tr>
<td>First Generation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32.0%</td>
<td>48.5%</td>
<td>27.2%</td>
</tr>
<tr>
<td>No</td>
<td>68.0%</td>
<td>51.5%</td>
<td>72.8%</td>
</tr>
<tr>
<td>Class Modality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Person</td>
<td>23.1%</td>
<td>18.2%</td>
<td>24.6%</td>
</tr>
<tr>
<td>Online</td>
<td>76.9%</td>
<td>88.8%</td>
<td>75.4%</td>
</tr>
<tr>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On Campus</td>
<td>29.3%</td>
<td>30.3%</td>
<td>29.0%</td>
</tr>
<tr>
<td>Off Campus</td>
<td>70.7%</td>
<td>69.7%</td>
<td>71.0%</td>
</tr>
</tbody>
</table>

Table 2. Descriptive statistics for continuous academic variables

<table>
<thead>
<tr>
<th></th>
<th>Total Sample (N=147)</th>
<th>EOP (N=33)</th>
<th>Non-EOP (N=114)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>19.8</td>
<td>20.2</td>
<td>19.63</td>
</tr>
<tr>
<td>Mean Class Year</td>
<td>3</td>
<td>2.8</td>
<td>3.1</td>
</tr>
<tr>
<td>Mean Completed Credits</td>
<td>70.1</td>
<td>60.8</td>
<td>72.8</td>
</tr>
<tr>
<td>Mean Enrolled Credits</td>
<td>14.6</td>
<td>13.9</td>
<td>14.8</td>
</tr>
<tr>
<td>Mean First Semester GPA</td>
<td>3</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Mean Cumulative GPA</td>
<td>3.1</td>
<td>2.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Mean High School GPA</td>
<td>89.4</td>
<td>84.6</td>
<td>90.8</td>
</tr>
<tr>
<td>Mean SAT</td>
<td>1086</td>
<td>952</td>
<td>1126</td>
</tr>
<tr>
<td>Mean ACT</td>
<td>24</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>Mean EFC</td>
<td>$14,530</td>
<td>$318</td>
<td>$19,128</td>
</tr>
</tbody>
</table>
Table 3 provides the means and standard deviations reported on the rCMI for each of the major variables of interest in this study. Two students had one missing response respectively to rCMI questions. These missing data were filled in by calculating the mean response rate from the total sample for the same question, so that students with missing data would be included in the study.

Table 3. Means and Standard Deviations for Major Variables

<table>
<thead>
<tr>
<th></th>
<th>Total Sample</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Intention to Persist</td>
<td>147</td>
<td>4.64</td>
<td>0.92</td>
</tr>
<tr>
<td>Mattering Overall</td>
<td>147</td>
<td>97.76</td>
<td>18.87</td>
</tr>
<tr>
<td>Mattering to Counselors</td>
<td>147</td>
<td>15.40</td>
<td>5.26</td>
</tr>
<tr>
<td>Mattering to Instructors</td>
<td>147</td>
<td>15.70</td>
<td>3.44</td>
</tr>
<tr>
<td>Mattering to Students</td>
<td>147</td>
<td>9.15</td>
<td>2.94</td>
</tr>
</tbody>
</table>

Intention to persist. As mentioned previously, the “intention to persist” variable refers to student responses about intentions to return in the following semester to their current institution. For intention to persist, measured with a single item 5-point Likert scale, the overall sample (both EOP and non-EOP students) reported comparable levels, \( M = 4.64 \), compared to a study where \( M = 4.63 \) was reported for students enrolled in various southern higher education institutions (Deutschlander, 2019). Another study of a sample of first-year traditional students in a midsized university in the Western US reported \( M = 4.26 \), which can be expected as first year students have a higher likelihood of attritting compared to upperclass students (Strom & Savage, 2014). Another study of students from a midwestern, public university with a large commuter student population reported \( M = 3.43 \), which is consistent with commuter students having lower retention rates compared to residential students (Baier, Markman, & Pernice-Duca, 2016). Lastly, a study of community college students in South-Central
United States reported a $M=3.38$ intent to persist, which is consistent with community college students having lower retention rates compared with students at four year institutions (Crisp, 2010).

**Mattering.** To measure mattering levels, this study utilized survey responses to items in the rCMI, which are presented in Table 3. Overall, the mean score for mattering was 97.76, which is similar to Tovar, Simon and Lee (2009) who reported a mean overall mattering score of 96.98 at two Southern California institutions, one community college and one university. Another study that utilized the unmodified CMI for undergraduate students enrolled in a large, public, research institution reported a much lower mean overall mattering score of 71.2 (Shine, et al., 2011).

All of the mattering subscales for the rCMI were derived from the original CMI created by Tovar, Simon and Lee (2009). In the CMI, there were 6 subscales developed (general college mattering, mattering vs. marginality, mattering to counselors, mattering to instructors, mattering to students, perception of value) with corresponding questions for each of the subscales. The subscale scores were calculated by adding up all of the Likert responses to the questions in the relevant subscale (1=Not at all, 2=Slightly, 3=Somewhat, 4=Moderately, 5=Very much). For the present study, the current sample means were 97.76 (with a possible range of 6 to 145) for overall mattering; 15.4 (with a possible range of 5 to 25) for mattering to counselors; 15.7 (with a possible range of 4 to 20) for mattering to instructors; and 9.15 (with a possible range of 3 to 15) for mattering to students. Comparing these means with those of prior studies, mattering to counselors, students and instructors were comparable to Tovar, Simon and Lee’s (2009) study. When compared to Shine et al.’s study (Shine, et al., 2011), the current study reported higher mattering to instructors (15.7 compared to 14.1) and lower mattering to students (9.15 compared to 11.5). The somewhat lower instructor mattering in Shine et al.’s (2011) study may owe to differences in settings between Shine et al.’s (2011) study and the study carried out in this project. As Shine et al.’s (2011) study was undertaken at a large, public research university, there is a greater likelihood for larger class sizes compared to the institution in the present study. Larger class sizes may
limit the amount of individual attention students receive from their instructors. In addition, the lower student mattering scores in the present study when compared to the scores obtained by Shine et al. (2011) could be because the present study took place during the Covid-19 pandemic, in which the amount of interaction students had with each other may have been limited. In consequence, student mattering scores would be relatively lower than what might have been obtained pre-COVID. In regards to counselor/advisor mattering, the Shine et al. study (2011) had almost identical mattering to counselor/advisor mattering scores, 15.5 compared to 15.4 for this study.

**Intercorrelations**

Table 4 provides a matrix of the intercorrelations among the demographic and academic variables and the major variables of intention to persist and mattering. The correlations between the demographic and academic variables and the major variables were examined for possible inclusion into the main analysis. The Bonferroni correction (Holm, 1979) was calculated by dividing alpha (.05) by the number of correlations (55), which yielded a value of 0.0009. This analysis was carried out to determine if any of the demographic or academic variables needed to be included in analyses regarding intention to persist and mattering. One of these correlations, between students of color and counselor mattering, exceeded the corrected level of significance. No other correlations exceeded the Bonferroni correction and no other demographic or academic variables were included in the main analysis.
Table 4. Intercorrelation of Demographic and Major Variables

<table>
<thead>
<tr>
<th></th>
<th>Total (Counselors)</th>
<th>Total (Instructors)</th>
<th>Total (Students)</th>
<th>Total (Overall)</th>
<th>Intent to Persist</th>
<th>ACT</th>
<th>SAT</th>
<th>Class Modality</th>
<th>Students of Color</th>
<th>First Gen</th>
<th>First Semester GPA</th>
<th>Gender</th>
<th>GPA Cumulative</th>
<th>High School GPA</th>
<th>Residence</th>
<th>EFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (Counselors)</td>
<td>1.000</td>
<td></td>
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<tr>
<td>Total (Instructors)</td>
<td>0.469***</td>
<td>1.000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total (Students)</td>
<td>0.186*</td>
<td>0.105</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total (Overall)</td>
<td>0.781***</td>
<td>0.551***</td>
<td>0.476***</td>
<td>1.000</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Intent to Persist</td>
<td>0.145</td>
<td>0.215**</td>
<td>0.183*</td>
<td>0.283***</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ACT</td>
<td>-0.358</td>
<td>-0.078</td>
<td>-0.077</td>
<td>-0.381*</td>
<td>0.334</td>
<td>1.000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAT</td>
<td>-0.249**</td>
<td>-0.096</td>
<td>-0.029</td>
<td>-0.137</td>
<td>-0.06</td>
<td>0.956</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class Modality</td>
<td>0.033</td>
<td>0.010</td>
<td>0.036</td>
<td>0.076</td>
<td>-0.013</td>
<td>0.061</td>
<td>0.079</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students of Color</td>
<td>0.364***</td>
<td>0.169*</td>
<td>-0.066</td>
<td>0.157</td>
<td>-0.021</td>
<td>-0.339</td>
<td>-0.508</td>
<td>-0.021</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>First Gen</td>
<td>0.163*</td>
<td>0.144</td>
<td>-0.000</td>
<td>0.146</td>
<td>0.079</td>
<td>0.007</td>
<td>-0.175</td>
<td>0.108</td>
<td>0.095</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Semester GPA</td>
<td>-0.003</td>
<td>0.086</td>
<td>0.166*</td>
<td>0.099</td>
<td>0.056</td>
<td>0.568</td>
<td>0.374</td>
<td>-0.121</td>
<td>-0.222</td>
<td>-0.025</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-0.103</td>
<td>-0.095</td>
<td>-0.143</td>
<td>-0.143</td>
<td>-0.122</td>
<td>0.026</td>
<td>-0.052</td>
<td>-0.215</td>
<td>-0.058</td>
<td>-0.008</td>
<td>0.201</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GPA Cumulative</td>
<td>-0.026</td>
<td>0.079</td>
<td>0.230**</td>
<td>0.106</td>
<td>0.085</td>
<td>0.577</td>
<td>0.378</td>
<td>-0.084</td>
<td>-0.298</td>
<td>-0.061</td>
<td>0.888</td>
<td>0.221</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School GPA</td>
<td>0.087</td>
<td>0.13</td>
<td>0.084</td>
<td>0.041</td>
<td>0.042</td>
<td>0.710</td>
<td>0.468</td>
<td>0.018</td>
<td>-0.309</td>
<td>-0.111</td>
<td>0.525</td>
<td>0.266</td>
<td>0.478</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>0.063</td>
<td>0.000</td>
<td>-0.051</td>
<td>0.075</td>
<td>0.024</td>
<td>0.274</td>
<td>-0.044</td>
<td>0.534</td>
<td>0.169</td>
<td>0.040</td>
<td>-0.157</td>
<td>-0.145</td>
<td>0.055</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC</td>
<td>0.052</td>
<td>-0.01</td>
<td>0.062</td>
<td>0.041</td>
<td>0.052</td>
<td>-0.413</td>
<td>0.188</td>
<td>0.016</td>
<td>0.184</td>
<td>0.065</td>
<td>0.042</td>
<td>0.008</td>
<td>-0.028</td>
<td>0.1</td>
<td>0.007</td>
<td>1.000</td>
</tr>
</tbody>
</table>

*<.05 level; **<.01 level; ***<.001 level
Tests of Hypotheses

Levels of mattering for EOP and non-EOP students

To test the hypothesis for Research Question 1, the observed differences in means of the overall mattering scale and sub-scale scores between EOP students and non-EOP students were submitted to one-tailed t-tests. The variances for the groups examined are not so extreme as to oblige a different approach to test for significance of differences in means. The results are presented in Table 5 and described below.

Table 5. Tests of mean differences in mattering

<table>
<thead>
<tr>
<th>Mattering Category</th>
<th>Sample</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mattering</td>
<td>EOP</td>
<td>33</td>
<td>106.03</td>
<td>16.31</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>95.37</td>
<td>18.95</td>
<td></td>
</tr>
<tr>
<td>Mattering to Instructors</td>
<td>EOP</td>
<td>33</td>
<td>16.46</td>
<td>3.00</td>
<td>0.077</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>15.48</td>
<td>3.54</td>
<td></td>
</tr>
<tr>
<td>Mattering to Students</td>
<td>EOP</td>
<td>33</td>
<td>9.15</td>
<td>2.78</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>9.15</td>
<td>3.50</td>
<td></td>
</tr>
<tr>
<td>Mattering to Counselors/Advisors</td>
<td>EOP</td>
<td>33</td>
<td>19.73</td>
<td>3.48</td>
<td>&lt;.001</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>14.14</td>
<td>5.03</td>
<td></td>
</tr>
</tbody>
</table>

Overall mattering. The comparison of means showed that EOP students had a significantly higher mean overall mattering score, with an estimated difference in mean scores of 10.93, \(t=2.93, p=.002\).

Mattering to instructors. The comparison of means showed that the observed difference in mean scores on mattering to instructors of 1.12 was not significantly different from that of non-EOP students, \(t=1.43, p=.077\).
Mattering to students. The comparison of means showed that the mean score on mattering to students for EOP students, 9.15, was not significantly different from that of non-EOP students with a score of 9.15, \( t = .01, p = .50 \).

Mattering to counselor(s)/advisor(s). For counselor/advisor mattering, the comparison of means showed that there was a significant difference such that the EOP students’ counselor/advisor mattering mean scale score of 19.73 was statistically higher than the comparable mean scale score for non-EOP students, 14.14, \( t = 5.97, p < .001 \).

However, for counselor/advisor mattering it was necessary to include the students of color variable in the analysis, given the results of the Bonferroni analysis noted above. To conduct the analysis, a two tailed t-test was performed of differences in means in counselor/advisor mattering between EOP students of color and non-EOP students of color. As seen in table 6, the mattering to counselor/advisor mean score of 19.66 for EOP students of color was statistically different from the score obtained for non-EOP student of color, an estimated 15.4, \( t = 3.65, p < .001 \). As all but one of EOP respondents in the sample are students of color, comparisons of EOP students not of color and non-EOP students not of color was not possible.

Table 6. Tests of Differences in Means of Counselor/Advisor Mattering between EOP Students of Color and Non-EOP Students of Color

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOP Students of Color</td>
<td>32</td>
<td>19.66</td>
<td>3.51</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Non-EOP Students of Color</td>
<td>30</td>
<td>15.4</td>
<td>5.52</td>
<td></td>
</tr>
</tbody>
</table>

Mattering and Intent to Persist

Research question 2 sought to determine if students who experienced a higher level of mattering (again, generally, and with respect to counselors/advisors, faculty, and other students) had a higher level of intention to persist at the institution. To answer this question correlation analyses were
conducted. The results are presented in Table 7 and described below. Further analysis yielded results, presented in Table 8, on the relationship between mattering and intent to persist separately for the EOP and non-EOP samples.

Table 7. Correlation of Mattering and Intent to Persist (Total Sample)

<table>
<thead>
<tr>
<th>Population</th>
<th>N</th>
<th>R</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mattering and Intent to Persist</td>
<td>147</td>
<td>0.28</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Student Mattering and Intent to Persist</td>
<td>147</td>
<td>0.16</td>
<td>0.047</td>
</tr>
<tr>
<td>Instructor Mattering and Intent to Persist</td>
<td>147</td>
<td>0.18</td>
<td>0.034</td>
</tr>
<tr>
<td>Counselor/Advisor Mattering and Intent to Persist</td>
<td>147</td>
<td>0.15</td>
<td>0.079</td>
</tr>
</tbody>
</table>

Table 8. Correlation of Mattering and Intent to Persist (EOP and Non-EOP Samples)

<table>
<thead>
<tr>
<th>Population</th>
<th>Population</th>
<th>N</th>
<th>R</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mattering and Intent to Persist</td>
<td>EOP</td>
<td>33</td>
<td>0.15</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>0.33</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Student Mattering and Intent to Persist</td>
<td>EOP</td>
<td>33</td>
<td>0.03</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>0.24</td>
<td>0.01</td>
</tr>
<tr>
<td>Instructor Mattering and Intent to Persist</td>
<td>EOP</td>
<td>33</td>
<td>0.28</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>0.15</td>
<td>0.11</td>
</tr>
<tr>
<td>Counselor/Advisor Mattering and Intent to Persist</td>
<td>EOP</td>
<td>33</td>
<td>0.07</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>114</td>
<td>0.18</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**Overall mattering.** The correlation analyses showed that in the total sample, students who reported higher levels of overall mattering also reported a significantly higher intent to persist, \( r = .28, p < .001 \), indicating a moderate relationship. For the EOP and Non-EOP samples, only the Non-EOP sample showed a significant relationship between overall mattering and intent to persist, \( r = .33, p < .001 \).

**Student mattering.** The correlation analysis showed that in the total sample, students who had higher levels of student mattering had a significantly higher intent to persist, \( r = .16, p < .05 \), indicating a modest relationship. For the EOP and Non-EOP samples, only the Non-EOP sample showed a significant relationship between student mattering and intent to persist, \( r = .24, p = .01 \).
Instructor Mattering. The correlation analysis showed that in the total sample, students who had higher levels of instructor mattering had a significantly higher intent to persist with an $r = 0.18$, $p < .05$, indicating a modest relationship. Both the EOP and Non-EOP samples did not show a significant relationship between instructor mattering and intent to persist.

Counselor/Advisor Mattering. The correlation analysis showed that in the total sample, students who had higher levels of counselor/advisor mattering did not have a significantly higher intent to persist, $r = .15$, $p = .08$. Given the Bonferroni correction showing that counselor/advisor mattering had a significant correlation with the student of color variable, this variable would need to be included in this analysis. However, since there was only one EOP student that was not a student of color, EOP status was included in the analysis instead. For EOP students, the analysis showed that there was not a significant relationship between counselor/advisor mattering and intent to persist, $r = .07$, $p = .69$. For non-EOP students, there was a modest, but significant relationship between counselor/advisor mattering and intent to persist, $r = .18$, $p = .05$.

Supplemental Analysis

Information was available from administrative records on actual retention, i.e., whether the students participating in the study did in fact return to the institution in the following semester, which affords the opportunity to conduct further analysis. Of the 33 EOP respondents, 32 students persisted into the fall 2021 semester, which represents a 97% persistence rate. Of the 114 non-EOP respondents, 108 persisted into the fall 2021 semester, which represents a 95% persistence rate.

In addition to calculating persistence rates, having the actual persistence data affords the ability to conduct further examination into mattering, specifically with opportunity program participation and student persistence. It should be noted since there were such high persistence rates in both the EOP and non-EOP samples (97% and 95%, respectively), the low variation in actual persistence limits the analyses
that can be supported with respect to actual persistence. However, the actual persistence data do permit some exploration of two more questions:

1. Is there a relationship between intent to persist and actual persistence for the total sample as well as for the separate EOP and non-EOP student samples?
2. Is there a relationship between overall, counselor/advisor, student and/or instructor mattering and actual persistence for the total sample as well as for EOP and non-EOP student samples, separately?

Table 9 shows the results of the analysis for the first supplemental research question. Table 10 presents the results of the analysis for the second supplemental research question, searching for associations between overall, counselor/advisor, student and instructor mattering and actual persistence. Only descriptive statistics are reported. The sample drawn yielded a very small number of students who did not persist at the campus, making it difficult to obtain inferences of statistical significance.

### Table 9. T-Tests of Differences in Means of Intent to Persist by Actual Persistence

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sub Sample</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Sample</td>
<td>Persister</td>
<td>140</td>
<td>4.76</td>
</tr>
<tr>
<td></td>
<td>Non Persister</td>
<td>7</td>
<td>2.14</td>
</tr>
<tr>
<td>Non-EOP</td>
<td>Persister</td>
<td>108</td>
<td>4.77</td>
</tr>
<tr>
<td></td>
<td>Non Persister</td>
<td>6</td>
<td>2.33</td>
</tr>
</tbody>
</table>

**Intent to Persist and Persistence for the total sample (EOP and Non-EOP students).** The analysis revealed that there was a difference in means in the total sample for persisters (4.76) and non-persisters (2.14).
Intent to Persist and Persistence for EOP students. There was only one EOP student that did not persist. No statistical analysis could be carried out to uncover an association, if any, between intent to persist and actual persistence for the EOP sample.

Intent to Persist and Persistence for non-EOP students. The analysis revealed that there was a difference in means in non-EOP sample for persisters (4.77) and non-persisters (2.33).

Table 10. T-Tests of Differences in Mean Mattering Scale Scores by Actual Persistence

<table>
<thead>
<tr>
<th>Mattering Category</th>
<th>Sample</th>
<th>Subsample</th>
<th>N</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Mattering</td>
<td>Total sample</td>
<td>Persister</td>
<td>140</td>
<td>97.97</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>7</td>
<td>93.57</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>Persister</td>
<td>108</td>
<td>95.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>6</td>
<td>87.33</td>
</tr>
<tr>
<td>Student Mattering</td>
<td>Total sample</td>
<td>Persister</td>
<td>140</td>
<td>9.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>7</td>
<td>8.86</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>Persister</td>
<td>108</td>
<td>9.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>6</td>
<td>8.33</td>
</tr>
<tr>
<td>Counselor/Advisor Mattering</td>
<td>Total sample</td>
<td>Persister</td>
<td>140</td>
<td>15.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>7</td>
<td>14.29</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>Persister</td>
<td>108</td>
<td>14.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>6</td>
<td>12.5</td>
</tr>
<tr>
<td>Instructor Mattering</td>
<td>Total sample</td>
<td>Persister</td>
<td>140</td>
<td>19.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>7</td>
<td>18.43</td>
</tr>
<tr>
<td></td>
<td>Non-EOP</td>
<td>Persister</td>
<td>108</td>
<td>19.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Persister</td>
<td>6</td>
<td>17.83</td>
</tr>
</tbody>
</table>

Overall mattering. The analysis showed that the mean overall mattering scores for the total sample for persisters was 97.97, which was higher compared with the mean overall mattering score of 93.57 for non-persisters. For the non-EOP sample, the analysis showed that the mean overall mattering score of 95.82 for persisters was lower than non-persisters’ overall mattering scores of 87.33.

Mattering to students. The analysis showed that the mean student mattering scores for the total sample for persisters was 9.12, which was higher compared with the mean student mattering score
of 8.86 for non-persisters. For the non-EOP sample, the analysis showed that the mean student mattering score of 9.14 for persisters was higher than non-persisters’ overall mattering scores of 8.33.

**Mattering to counselor(s)/advisor(s).** The analysis showed that the mean counselor/advisor mattering scores for the total sample for persisters was 15.45, which was higher compared with the mean counselor/advisor mattering score of 14.29 for non-persisters. For the non-EOP sample, the analysis showed that the mean counselor/advisor mattering score of 14.23 for persisters was higher than non-persisters’ counselor/advisor mattering scores of 12.5.

**Mattering to instructors.** The analysis showed that the mean instructor mattering scores for the total sample for persisters was 19.88, which was higher compared with the mean instructor mattering score of 18.43 for non-persisters. For the non-EOP sample, the analysis showed that the mean instructor mattering score of 19.66 for persisters was higher than non-persisters’ instructor mattering scores of 17.83.

**Summary of Findings**

The purpose of the first research question was to assess differences in the levels of mattering (overall and in regards to mattering to counselors/advisors, students and instructors) experienced by EOP and Non-EOP students at a rural, public, four-year, liberal arts college in the Northeast. For the second research question, the study sought to examine the relationship between mattering and intention to persist. Mattering, defined as the “feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, Mattering: Inferred Significance and Mental Health among Adolescents, 1981, p. 161), was evaluated overall and with respect to, separately, counselors/advisors, fellow students, and instructors. Supplemental analyses were conducted to understand the relationship between mattering and intention to persist within the total sample as well as the EOP and non-EOP samples. Further supplemental
analyses were conducted to examine the relationship between actual persistence and mattering for the total sample as well as the EOP and non-EOP samples.

The analysis of the first research question, concerning levels of mattering for EOP and non-EOP students, showed that there was a significant difference in the levels of mattering students experienced overall and from counselor(s)/advisor(s) such that EOP students reported higher levels of mattering compared to non-EOP students. For instructor and student mattering, there was not a statistically significant difference in the levels of mattering between EOP and non-EOP students. These results show that students enrolled in an opportunity program experience significantly higher feelings of mattering overall, and to their counselors, than do non-program students.

For the second research question, concerning the relationship of mattering to intention to persist, the analyses revealed that there was a significant correlation between overall, student and instructor mattering and intention to persist for the total sample and non-EOP students. For counselor/advisor mattering, there was a significant correlation for the non-EOP student sample with intention to persist. These results provide further evidence of a positive relationship between mattering and intent to persist that was found in previous studies. There was not a significant correlation between counselor/advisor mattering student intention to persist for the total sample (EOP and non-EOP students) as well as the EOP sample.

For the first supplemental research question, the analysis showed that mattering levels were higher for persisters compared with non-persisters for the total sample and the Non-EOP sample. However, since there were so few non-persisters in the samples, no inferences are drawn of statistical significance. For the second supplemental research question, differences in overall, counselor/advisor, student or instructor mattering by actual persistence are relatively small. The next chapter will discuss
how the results relate to policy, practice and extant literature as well as provide suggestions for future research.
Chapter 5
Discussion

Summary

This study had as its purpose to assess differences in the levels of mattering experienced by EOP and non-EOP students and the evaluate the association between mattering and intention to persist at a rural, public, four-year, liberal arts college in the Northeast. Mattering, in this study, is defined as “feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension,” and is believed to manifest separately with respect to mattering to counselors/advisors, to students, and to instructors (Rosenburg & McCullough, 1981, p. 161).

Two research questions guided the study. These were:

1. Do opportunity program students experience mattering (overall, and with respect to counselors/advisors, faculty, and other students) at a higher level compared to non-program students?

2. Do students who experience a higher level of mattering (again, generally, and with respect to counselors/advisors, faculty, and other students) have a higher level of intention to persist?

With additional information supplied through administrative student records, two supplemental questions also were examined:

1. Is there any relationship between intent to persist and actual persistence for the total sample as well as for the separate EOP and non-EOP student samples?
2. Is there a relationship between overall, counselor/advisor, student and/or instructor mattering and actual persistence for the total sample as well as for EOP and non-EOP student samples, separately?

The analysis of the first research question showed that there were significant differences in the levels of mattering students experienced, both overall and to counselor(s)/advisor(s). In particular, mean scale scores on both dimensions for EOP students were higher than mean scores for on these dimensions for non-EOP students. For instructor and student mattering, no statistically significant differences were found in mean scale scores between EOP and non-EOP students. EOP students reported higher levels of mattering than did non-EOP students, overall, and to counselors/advisors, and comparable levels of mattering to non-EOP students with regard to mattering to instructors and to students.

For the second research question, the analyses revealed that there was a significant correlation for the total sample between intention to persist and three elements of mattering: overall, student mattering to other students, and mattering to instructors. There was no significant correlation for the total sample between counselor/advisor mattering and students’ intention to persist. Analyses also found positive associations between mattering (overall, to students, to instructors and to counselors) and intention to persist for the non-EOP sample. For EOP students, mattering was not found to be significantly correlated with intention to persist. For all students, those manifesting higher levels of mattering overall, to students, and to instructors reported higher levels of intention to persist. No such tendency was found for counselor/advisor mattering and intention to persist. For non-EOP students, those manifesting higher levels of mattering (overall, and to students, instructors, and counselors/advisors) tended to have higher levels of intention to persist.
Finally, with respect to supplemental research questions concerning associations with actual persistence, the analyses showed a tendency for those who actually persist to have indicated, earlier in the year, a higher intention to persist. That tendency was observed for the total sample and the non-EOP sample. No inferences on the statistical significance of the tendencies were drawn, owing to very small cell sizes.

Further analyses concerning tendencies between mattering (overall, to student, to instructor, to counselor/advisor) and actual persistence revealed very small differences in mean scores. The results refer to the total sample and the non-EOP sample.

**Interpretation of Findings**

*Overall Mattering and Counselor/Advisor Mattering scores were higher for EOP Students*

This study found that EOP students experience higher levels of overall mattering compared to non-EOP students at the host institution. Of note here is that the “overall mattering” score includes responses from more subscales than were used for the specific analyses in this study. While the subscales used for the specific analyses here included mattering experience from counselor(s)/advisors, instructors, students, the “overall mattering” score also includes responses about mattering experiences from college in general, mattering experiences in relation to marginality, and perception of value. Thus, the “overall mattering” scores reflect a broader index of the student’s experience, beyond a simple “sum” of the counselor/advisor, instructor, and student sub-scales.

Overall mattering could be higher for EOP students compared to non-EOP students because, unlike other advisement and student life activities, the EOP Program at the host institution intentionally builds community within the program as well as with other institutional offices, staff, and faculty. EOP at the host institution as well as most other EOP Programs in SUNY have summer programs in which pre-
freshman EOP students live on campus, take classes and get oriented to the services provided at the college before non-EOP students. The connections that students make with their peers, faculty, counselors and other staff during their pre-freshman summer may well help to build a sense of community – and mattering – that continues throughout the EOP students’ time at the institution. And, further, the EOP Program promotes integration in the campus community as EOP counselors provide referrals to campus offices. In her study of students enrolled in a similar opportunity program, Gomez (2008) found that opportunity program students reported higher levels of mattering to the institution compared to non-program students, which is consistent with the findings in this study.

In addition to higher levels of overall mattering, responses of students in the survey also showed that EOP students manifested higher levels of mattering from counselors/advisors. This result was not surprising, given that EOP students are assigned an individual EOP counselor to work with during their entire college career. EOP counselors, in particular, often form strong relationships with students that go beyond academic advisement or prescriptive advising relationships and focus on a holistic view of students’ lives (Office of Access and Opportunity Programs, 2022). While non-EOP students also have an assigned faculty advisor as well as access to other advisors in the financial aid, academic advising, counseling center and career development offices, these relationships are typically not sustained nor as frequent nor as extensive and connected as the relationship between EOP students and their EOP counselors. The finding that EOP students experience higher levels of counselor/advisor mattering than do non-EOP students is also consistent with previous research that found higher levels of advisor mattering for opportunity program students compared to non-opportunity program students (Gomez, 2008; Dykes, 2011).

**Mattering to Instructors and Mattering to Students were similar for EOP and Non-EOP Students**

With respect to mattering to instructors, EOP students were found to experience levels of mattering similar to those of non-EOP students. Although it was hypothesized that EOP students would
have higher mattering levels overall and across all subscales compared to non-EOP students, the finding of similar levels of mattering to instructors for EOP and non-EOP students and their respective intentions to persist is in line with previous research (Gomez, 2008).

The finding that EOP and non-EOP students had similar levels of mattering to students is somewhat surprising, given that opportunity programs purposefully aim to develop connections and a sense of community between students in their programs. Thus, the finding is puzzling, even though it is consistent as just mentioned with prior research (Gomez, 2008). This researcher’s experience in opportunity programs both as a student and as a counselor along with previous research on how opportunity programs increase a sense of belonging and community would seem to suggest that EOP students would have higher student mattering scores than is the case for non-EOP students (Bailey, 2005; Braunstein, Lesser, & Pescatrice, 2008; Cole, Newman, & Hypolite, 2020). However, as stated previously, this study took place during the Covid pandemic when students completed most classes online. As such, the interactions students had with each other outside of class likely were limited, and different. Additionally, a higher percentage of non-EOP students were taking classes in person (24.6%) compared to EOP students (18.2%). The increased interaction and engagement with other students in class for non-EOP students could have positively impacted their responses to mattering to other students in this study.

**Stronger Sense of Mattering, Stronger Intent to Persist**

The second research question focused on the relationship between mattering (overall, student, instructor, counselor/advisor) and intention to persist. In this study, students and, separately, non-EOP students who reported experiencing higher levels of mattering (overall, to students, and to instructors) also reported higher levels of intending to persist at the host institution. These results are consistent with previous studies that showed a positive relationship between mattering to institutional actors and
student outcomes including persistence (Dykes, 2011; Tovar, 2013; Kent, 2004). Further, these findings support research on retention and persistence, which highlights the role of student engagement and involvement with institutional actors and peers in promoting student success (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008; Tinto, 2007).

**Overall Mattering and Intent to Persist.** In this study, students and, separately, non-EOP students, who reported higher levels of overall mattering also reported higher levels of intention to persist. This finding is consistent with previous studies that examined general mattering and persistence (Gomez, 2008; Kent, 2004; Tovar, 2013). As noted previously, overall mattering represents a broader spectrum of experience than students, instructors, and counselors/advisors that were of specific interest in this study. Those three elements of experience from mattering, as discussed further below, were also associated with intent to persist. As a result, it is possible that the significant finding for overall mattering might be partially attributable to the potency of those three sources of mattering. However, one can also view overall mattering as similar to the concept of sense of belonging and a sense of community, which previous research has shown to have a positive impact on persistence (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Morrow, 2002; Tinto, 1998). This sense of belonging and sense of community – overall mattering - likely are critical to college student persistence, as the likelihood of social and academic integration is greater (Tinto, 1993).

**Mattering to Students and Intent to Persist.** This study found that students, and separately non-EOP students who experience greater mattering from students also report a higher intention to persist. This finding is in line with the literature on student retention and persistence, which shows that students who engage socially and academically with other students are more likely to persist (Bean, 1979; Spady, 1971; Tinto, 1993). As just noted, Tinto (1993) refers to social integration within the institution, coupled with academic integration, as a critical factor in student persistence and graduation at a particular institution. The finding that student mattering “matters” with respect to intention to
Mattering to Instructors and Intent to Persist. Another finding of this study was that students who report higher levels of instructor mattering also had higher levels of intention to persist. These results are also in line with student retention theories and findings that focus on academic integration as being critical for retention (Bean, 1979; Spady, 1971; Tinto, 1993). The concept of faculty playing a vital role in retention and persistence is well documented in the literature (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Tinto, 1999). In addition, the literature on mattering also supports the role of faculty in increasing mattering as well as student success (Dykes, 2011; Tovar, 2015). For some students, interacting with faculty may be the only relationship they have with institutional actors, especially for non-residential students who commute to campus and online students who may have limited interactions with staff and offices at the institution. The positive association found between instructor mattering and intention to persist may well have been maintained at the time of the survey, when Covid left instructors as the only stakeholder group with sustained relationships with students. During this period, the overwhelming majority of students were off campus and “social distancing” regulations were put in place. This study’s findings add further evidence to support the role of faculty in increasing mattering and student success.

Counselor/Advisor Mattering and Intent to Persist. The data analysis failed to show an association between mattering to counselors/advisors and intention to persist for the total sample. The finding is puzzling, given prior research that finds support for such an association overall (Kent, 2004; Smith, 2019; Tovar, 2013). It may be that the counselor/advisor relationship was disrupted in this period, such that student intentions were driven by mattering to other stakeholders (not least instructors) and other influences not considered here. At least with respect to counselor/advisor engagements, this researcher’s experience in developing and sustaining relationships with counselees
proved to be more challenging during the pandemic, when contacts were online as opposed to in-person.

The data analysis also showed that non-EOP students who reported higher levels of counselor/advisor mattering also reported higher levels of intention to persist. These findings are consistent with previous research on the impact of advisors on student mattering (Kent, 2004; Smith, 2019; Tovar, 2013). In addition to the literature on mattering, these findings also support the research on retention and persistence that point to the critical role of institutional actors in promoting student success (Astin, 1993; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; Tinto, 1999). Higher education counselors and advisors provide valuable services to students and sometimes also a source of care and personalized attention, which impacts students’ feelings of mattering and decisions about continuing their academic careers at a given institution. As Tinto (1999) points out, the frequency and quality of contact with college staff is an important predictor of student persistence.

That said, there is a puzzle in that no association can be inferred between mattering to counselors/advisors and intention to persist for EOP students. The latter warrants further discussion in order to determine what variables may impact the finding in this study, especially considering that there were associations found between counselor/advisor mattering and intent to persist for the total sample as well as the non-EOP sample. One explanation could be that even though EOP students reported higher levels of counselor/advisor mattering compared to non-EOP students, the variance in counselor/advisor mattering for EOP students (12.08), was less than half that of non-EOP student counselor/advisor variability (25.31). Limited variability in data can make it difficult to find associations between variables.

**Those who intend to persist, actually do persist.** The first supplemental question of this study sought to understand the relationship between intent to persist and actual persistence. On this question
students (and, separately, non-EOP students) who reported higher levels of intention to persist also had higher levels of actual persistence. Note that due to the small sample size, no results could be obtained for EOP students. The general finding (for populations other than EOP students) supports previous research findings of a positive relationship between intention to persist and persistence (Tovar, 2013; Tovar, 2015; Wicker, 2004). Tinto (1993) posited that 85% of all college student departures are voluntary, which means that students who intend to persist at an institution, most likely will persist. Campus knowledge of intentions to persist, therefore, can be used in planning and program and service development. The finding in this study that intent to persist is positively correlated with actual persistence is important because it confirms what has been found in previous research and it could also be useful for institutions to utilize in their retention efforts.

**No Relationship found between Mattering and Actual Persistence**

The second supplemental research question sought to understand the relationship between mattering (overall, student, instructor and counselor/advisor) and actual persistence. On this question, the results provided no evidence of such a relationship. This is a surprising result, given findings of relationships between mattering (overall, student, instructor, counselor/advisor) and intention persist as well as between intention to persist and actual persistence. One possible explanation for the results lies with very low variability in actual persistence. In the sample, an estimated 3% or EOP students and 5% of non-EOP students did not return to the institution in the following semester. Those low percentages align with overall campus experience: a very high percentage of those completing the first, second or third years of study do return to the campus for the next year.

**Limitations**

Issues of internal and external validity limit the generalizability and strength of the conclusions to be drawn from this study. First, the study was conducted at only one rural, public, four-year, liberal arts college in the Northeast. This single-institution study provides limited basis to generalize to other
higher education institutions (and particularly institutions that not of the same type and character nor in the same region).

A second limitation of the study is that it took place during the Covid pandemic, while most students were taking classes online. At this particular institution, it is most common for students to live and take classes on campus. The nature of interactions students had with other students, instructors and counselor(s)/advisor(s) may have been shaped differently under Covid. The extent to which the nature of the interactions affected mattering for EOP students, in particular, is not known. Such students are more likely to be first generation, academically underprepared and more reliant on the individual support they receive from college and program personnel. Even though the study’s findings showed higher levels of counselor/advisor mattering for EOP students compared with non-EOP students, the nature of the relationship with their EOP counselors (perhaps limited in particular ways) might have affected how mattering to counselors/advisors entered into intention to persist (as well as, indirectly, other aspects of student engagement and student learning).

A third limitation of this study is that the findings reveal correlation, but do not give certain evidence of causality. While overall mattering was found to be positively correlated with intent to persist, variation in intent to persist may owe to other influences that generally track differences in mattering. Additionally, this study did not include any interviews or focus groups to capture the nature of the relationships that students experienced while enrolled at this institution. Having interviews and/or focus groups could have aided in understanding in a deeper way, the mattering levels of opportunity program and non-opportunity program students (Gomez, 2008).

A fourth limitation of the study is the effects of the strategy to boost recruitment of students to participate in the study and to encourage completion of the survey. An incentive of a chance to receive a $500 Amazon Gift card on completion of the rCMI might have attracted students with particular
motivations and interests. It is possible that those participating were more likely to be motivated by such an external incentive and, of such students, those from low income families were more likely than other students to respond.

**Recommendations for Future Research**

The results of this study showed the importance of mattering on intent to persist for students enrolled at a public, four-year, rural, liberal arts higher education institution in the Northeast.

The limitations of this study provide the basis for recommendations for future research. First, future studies could be undertaken at other institutions different from the research site such as community colleges, universities, private institutions and institutions at various parts of the country. Conducting research at these institutions could help to further the generalizability of the findings of the research to other types of colleges and universities.

Second, research could be undertaken when Covid restrictions no longer apply. Such studies could provide a basis for comparison with the results of this study. The majority of students in this study took courses online and lived off campus due to the pandemic. During normal times interactions with faculty, staff and students would likely be increased due to the nature of curricular and co-curricular activities that traditionally take place on residential college campuses. The increased interaction with institutional actors could have an impact on overall mattering as well as mattering to faculty, counselors/advisors as well as other students.

Third, different methods might be adopted to probe more deeply the nature of the relationships to provide a fuller understanding of mattering and how and why it differs (or not) for EOP and non-EOP students. For example, this study utilized a survey to understand students experiences with mattering. Adding a qualitative research method such as interviews or focus groups to the survey could be
beneficial in generating evidence to establish more firmly causality between mattering and intent to persist.

Fourth, the low level of variability in actual persistence in this study made it difficult to draw conclusions from the data. In order to increase variability, the survey or other research methodologies could be conducted in the beginning or middle of the semester when students are not as busy with school work during the end of the semester. Additionally, the survey could be administered more times throughout the semester in an effort to increase response rates. These methods would potentially increase the sample size, which may increase the variability of actual persistence and allow for more conclusions to be drawn from the data.

Recommendations for Policy and Practice

Since this study found significant, positive relationships between mattering and students’ intention to persist for the total and non-EOP sample, higher education institutions may seek more ways to increase mattering for non-opportunity program students in order to increase persistence rates at their respective institutions. As noted in the study, counselors/advisors, instructors and students play an important role in the levels of mattering students experience, so a recommendation for practice would be for training to be provided to teach college personnel on how to develop positive, meaningful relationships with students.

Another finding from the study showed that students enrolled in the EOP Program reported higher levels of overall and counselor/advisor mattering. These results point to the positive impact of the “holistic” counseling relationships that EOP counselors develop with their students, which leads to significantly higher levels of counselor/advisor mattering compared to the non-EOP student sample. Higher education institutions as well as policymakers could look at successful opportunity programs that have high mattering levels as well as higher persistence and graduation rates to see if they could
replicate or adapt opportunity programs, and expand enrollments in such programs, in an effort to increase student persistence for at-risk students.

Lastly, another finding of this study showed that intention to persist and persistence were correlated with one another. Having another predictor of college student persistence is a useful tool for institutions looking to increase student success. If intentions are known alongside what research has found to be attributes associated with risk of drop-out, institutions could employ measures such as tutoring, counseling/advising, creation of success plans and other initiatives aimed at mitigating issues students are facing. Often times colleges and universities do not know that a student is planning to leave the institution until the fill out a leave or withdrawal application or until they fail to return the following semester. Having intention to persist for students prior to departure is invaluable as it allows institutions to intervene proactively to retain their student population. To operationalize this finding from the study, higher education institutions could implement a student survey that asks questions related to students’ intentions to persist and use those data to target interventions for students at risk of not persisting.
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Appendix A
Consent to Participate in a Research Study

TITLE OF STUDY: “Educational Opportunity Program Services and College Student Intent to Persist: Does Mattering Matter?”

INVESTIGATOR: Glenn Pichardo, University at Albany Graduate Student, Department of Educational Policy and Leadership

STUDY PURPOSE: You are invited to participate in a research study examining the mattering levels of students at this college. You were selected for this study because you are a student enrolled at this college. The purpose of the study is to understand the effect of mattering on student retention and how institutional actors such as EOP counselors, faculty, students and the college as a whole impact feelings of mattering for students.

NUMBER OF PEOPLE TAKING PART IN THE STUDY: If you agree to participate, you will be one of 450 students who will be participating in this research.

PROCEDURE FOR THE STUDY: If you agree to be in the study you will take part in a survey called the College Mattering Inventory, which will ask you questions about your experience as a student at this college. The survey will take about 15 minutes to complete. If you agree to participate, you give this institution’s Office of Institutional Assessment & Effectiveness, which is administering this survey on my behalf, permission to link your survey responses to your student record and extract demographic, academic and financial data. The Office of Institutional Assessment & Effectiveness will in turn releases the data to the researcher without any identifiers, to ensure your privacy and confidentiality.

RISKS OF TAKING PART IN THE STUDY: All data given to the researcher will be deidentified, so there is minimal risk to your confidentiality. There are no physical risks in this study.

VOLUNTARY NATURE OF STUDY: Your participation in this project is voluntary. Even after you agree to participate in the research or sign the informed consent document, you may decide to leave the study at any time without penalty or loss of benefits to which you may otherwise have been entitled. I will retain and analyze the information you have provided up until the point you have left the study unless you request that your data be excluded from any analysis and/or destroyed.

BENEFITS OF TAKING PART IN THE STUDY: By participating in this study, you will be assisting the researcher in learning more about your experiences as a student, which will help this institution improve its services to you and other students. Additionally, you will earn a $10 Amazon Gift card for completing this survey.

COSTS/COMPENSATIONS: There is no cost to you for participating in this study. You will receive a $10 Amazon gift card for completing this survey.

CONFIDENTIALITY: Your responses will be collected by the Office of Institutional Assessment & Effectiveness and will be held in strict confidentiality. Before the data is released to the researcher data will be deidentified. The only identifying mark on the materials you complete will be code number, which cannot be linked to your identity by the researcher. All data will be stored on a password protected computer. All information obtained in this study is strictly confidential unless disclosure is
required by law. In addition, the Institutional Review Board and University or government officials responsible for monitoring this study may inspect these records. This project has been approved by the University at Albany Institutional Review Board. Approval of this project only signifies that the procedures adequately protect the rights and welfare of the participants. Please note that absolute confidentiality cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

**Rights as a Research Participant:** Research at the University Albany involving human participants is carried out under the oversight of the Institutional Review Board (IRB). This research has been reviewed and approved by the IRB. If you have any questions concerning your rights as a research subject or if you wish to report any concerns about the study, you may contact University at Albany Office for Pre-Award and Compliance Services at 1-866-857-5459 or hsconcerns@albany.edu. Additionally, you may also contact the researcher or the faculty supervisor:

- **Investigator:** Glenn Pichardo  
  **Phone:** 607-436-3507  
  **Email:** glenn.pichardo@oneonta.edu

- **Faculty Supervisor:** Dr. Alan Wagner  
  **Phone:** 518-442-5080  
  **Email:** awagner@albany.edu

**SUBJECT’S CONSENT:** By clicking “Next,” you acknowledge that you are 18 years or older and in consideration of all of the above, you consent to participate in this research study.
Appendix B

Educational Opportunity Program Services and College Student Retention: Does Mattering Matter?

By Glenn Pichardo

Academic, Financial and Demographic Data Request

The variables below are data that are requested from SUNY Oneonta’s Office of Institutional Research for EOP and Non-EOP students enrolled during the Spring 2021 semester who were selected to be a part of this dissertation study.

**Unique Identifying Number:** A randomly assigned number for each student in the study.

**First Generation College Status:** whether or not the student is a first generation college student

**Completed Credits:** the number of credits the student has earned after the spring 2021 has completed

**Enrolled Credits (Spring 2021):** the number of credits the student is enrolled in the spring 2021 semester

**First Semester College GPA:** the semester GPA after their first semester of college at SUNY Oneonta

**Cumulative Grade Point Average (GPA):** the student’s cumulative GPA earned at the time data were collected

**Previous Semester Grade Point Average (GPA):** the student’s GPA earned in the fall 2021 semester (if applicable)

**Race:** the race of the student as reported by the student on their original admissions application

**Ethnicity:** the ethnicity of the student as reported by the student on their original admissions application

**Gender:** the gender of the student as reported by the student on their original admissions application

**Age:** the age of a student at the time data were collected

**High school grade point average (GPA):** final (unweighted) high school GPA

**High school rank:** the ranking of the student compared to their high school cohort

**Expected Family Contribution (EFC):** The EFC for the 20-21 aid year

**Unmet Financial Need:** The student’s unmet financial need for the 20-21 aid year

**Scholastic Aptitude Test (SAT) Scores:** The student’s highest SAT score reported to SUNY Oneonta

**American College Testing (ACT) Scores:** The highest ACT score reported to SUNY Oneonta

**Major:** the student’s major(s) at the time of the study

**Residence:** Whether the student was living on or off campus during the spring 2021 semester

**Oneonta:** Whether or not a student was living in Oneonta or not during the spring 2021 semester

**Class Modality:** Whether a student had an “in person class” during the spring 2021 semester
Appendix C

Approval to Utilize the College Mattering Inventory

From: TOVAR_ESAU
To: Pichardo, Glenn
Subject: RE: College Mattering Inventory
Date: Wednesday, May 12, 2021 12:30:30 PM

Hi Glenn,
Thank you for keeping me posted. You still have our approval to use the CMI. My best wishes to you on your research and dissertation.
Take care.
Esau

From: Pichardo, Glenn <Glenn.Pichardo@oneonta.edu>
Sent: Wednesday, May 12, 2021 7:16 AM
To: TOVAR_ESAU <TOVAR_ESAU@smc.edu>
Subject: RE: College Mattering Inventory
CAUTION: This email originated outside SMC.

Dr. Tovar,
I hope all is well with you and your family. I am still working on completing my dissertation utilizing the CMI. I have changed the title of dissertation and the study population. As you know, I have been previously been granted permission to use the CMI. Do I need to submit another request to utilize the CMI? If so, I have attached an updated request to utilize the CMI for my dissertation.
Thank you for your consideration.

Glenn Pichardo
Senior EOP Counselor
Educational Opportunity Program
SUNY Oneonta
Phone: (607) 261-1781
To schedule a meeting: https://calendly.com/pichargd/30min

From: TOVAR_ESAU <TOVAR_ESAU@smc.edu>
Sent: Friday, February 2, 2018 1:09 PM
To: Pichardo, Glenn <Glenn.Pichardo@oneonta.edu>
Cc: TOVAR_ESAU <TOVAR_ESAU@smc.edu>
Subject: RE: College Mattering Inventory

Hi Glenn. You are approved to use the CMI in the manner described in your request. I am attaching a spreadsheet containing the items to help you. I am including below, the conditions for use. Thank you and best wishes.

Terms and Conditions for Research Use of the
College Mattering Inventory©
If permission is granted by Drs. Tovar and Simon, the following terms and conditions apply:
1. Permission is limited to one time use for the project described above;
2. The CMI may not be used for commercial or for-profit use of the CMI;
3. Permission does not include a right to reproduce the CMI in any publication, thesis, dissertation, report, etc.
4. Permission must be granted in writing before the CMI may be used in any research study/data collection effort for the study described above subject to the description/method described above.
5. The CMI must be properly cited and referenced in any publication derived from this research project.

Suggested citation:

6. If requested to do so, a copy of the final research report, must be provided to Drs. Tovar and Simon.
7. Upon review of the Research Permission Request Form and Agreement, notification will be given by either Dr. Tovar or Dr. Simon electronically if permission has been granted to use the CMI in the research project above. Until such time, the CMI, in whole or any component, may not be used in the collection of data.

Drs. Tovar and Simon reserve the right to withdraw permission of the use of the CMI at any time, particularly if the conditions above are violated or if the CMI is modified in a manner inconsistent with the method described above. It is strongly suggested you contact the authors to discuss any modifications to avoid misunderstandings. Drs. Tovar and Simon reserve the right to pursue any and all remedies should the conditions above be violated. This includes a notification to the appropriate Office responsible for academic integrity, research, graduate studies, provost, etc.

Esau

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Esau Tovar, Ph.D.
Dean, Enrollment Services
Santa Monica College
1900 Pico Blvd.
Santa Monica, CA 90405
Office: 310-434-4012 Fax: 310-434-8019
tovar_esau@smc.edu

From: Pichardo, Glenn [mailto:Glenn.Pichardo@oneonta.edu]
Sent: Friday, February 02, 2018 5:58 AM
To: TOVAR_ESAU <TOVAR_ESAU@smc.edu>
Subject: RE: College Mattering Inventory

Esau,
Thank you for your response. I was very excited to see your reply email. You made my day! I appreciate you and Dr. Simon’s consideration to allow me to utilize the CMI for my dissertation. I have attached the filled out permission form as per your request.
Please let me know if you have any questions.
Thank you again for your consideration.
Glenn

From: TOVAR_ESAU [mailto:TOVAR_ESAU@smc.edu]
Sent: Thursday, February 01, 2018 7:01 PM
To: Pichardo, Glenn <Glenn.Pichardo@oneonta.edu>
Subject: RE: College Mattering Inventory

Hi Glenn. Thank you for your interest in using the CMI. Sorry for the delay in getting back to you. Please complete the attached form and send it back to me. Once I receive it I will forward it to my colleague, Dr. Simon. Based on your description below, I do not foresee any issue. Thank you.

Esau
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Esau Tovar, Ph.D.
Dean, Enrollment Services
Santa Monica College
1900 Pico Blvd.
Santa Monica, CA 90405
Office: 310-434-4012 Fax: 310-434-8019
tovar_esau@smc.edu

From: Pichardo, Glenn [mailto:Glenn.Pichardo@oneonta.edu]
Sent: Thursday, January 25, 2018 10:28 AM
To: TOVAR_ESAU <TOVAR_ESAU@smc.edu>
Subject: College Mattering Inventory

Dr. Tovar,
I hope your semester is off to a good start. I am currently reading your dissertation and I really enjoy learning about mattering, validation and sense of belonging and how these concepts can be utilized to support college students. I am a counselor in an Educational Opportunity Program and I working on my dissertation. I am researching the effects of mattering on EOP students and specifically researching the impact of EOP counselors on the mattering levels of their counselees. I am writing to ask your permission to use the College Mattering Inventory for my dissertation that I am currently working on. Thank you for your consideration. Please let me know if you have any questions.

Glenn

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