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MAKING ENDS MEET: THE STRUCTURING ROLE OF FINANCIAL DISTRESS AS
BLACK AND LATINX EMERGING ADULTS ENTER COLLEGE

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Abstract

My dissertation is about how high-achieving, academically prepared, high aspiring, Black and Latinx college students become demoralized by the end of their first year, undercutting college persistence. They become demoralized when they experience high to moderate amounts of financial distress; when they struggle to pay bills, when they worry because of a lack of money, when they become concerned by how the costs of things may make them leave college—they struggle to make ends meet in the present and lose hope of the ends meeting the means in the future. First generation college students are more likely to experience high to moderate amounts of financial distress—the group we moralized to believe in college are entering and being forced out. I examine this quantitatively and qualitatively in one sample of 533 first year Black and Latinx college students split across three papers. This is derived from the larger study, Minority College Cohort Study.

For emerging adults' transition to college, normative social and contextual shifts present challenges that are largely productive for development. But not all students have the same experiences nor do all students manage similar experiences in similar ways. Black and Latinx emerging adults, many of whom are first generation college students, are transitioning to primarily white universities, where they must adjust to college life—while dealing with the task of paying for college under financial distress. There is limited qualitative work examining how students of color make meaning of their financial distress while on campus. Paper 1 draws on a mixed-methods study of Black and Latinx emerging adults' transition to college to investigate how financial distress shape interpretations of self-efficacy and sense of belonging amongst 70 Black and Latinx emerging adults. There was much variation in how Black and Latinx college

students interpreted their distress to signify subjective incompetence and how they received help and developed a sense of belonging.

Paper 2 examines how the experience of financial distress relates to certainty among Black and Latinx emerging adults that the college degree will pay off, a certainty that is important for college persistence. Furthermore, the research investigates the roles of aspirations, SES, and GPA as alternative explanations. In a representative/fair sample of 533 Black and Latinx first year college students, it was found that the experience of financial distress at the start of their first year was related to decreased certainty in the college degree paying off by the end of their first year. Among Black and Latinx college students, for those experiencing high amounts of distress, certainty decreased substantially. For those experiencing moderate financial distress at the start of the year, certainty decreased but not as substantially. Aspirations did not increase certainty as much as distress decreased certainty, while SES only moderately increased certainty in being able to repay loans in the future. Findings highlight the importance of investigating perceptions/experiences of financial distress as a feature that extends beyond the individual. Furthermore, these findings underscore how phenomenological variation in experience of financial distress influence emerging adults' certainty about the college degree, and ultimately undercuts persistence.

Paper 3 examines the moderating role of social support or institutional type on financial distress—a factor in reducing college persistence. Through an examination of the same sample of 533 Black and Latinx first year college students, there are trends of differences in social support and institutional type on financial distress as they pertain to certainty about the college degree. Although not statistically significant, some graphs illustrate a consistent pattern. For low and moderate levels of financial distress, social support was the most effective in maintaining and

increasing certainty about the worth of the college degree—yet high financial distress was not affected by social support. Concerning the institutional type, or whether they attend a private university or public university, those who attended private universities were more likely to maintain certainty in the value of the college degree in the face of distress, especially high financial distress. Future work should examine this across a wider selection of private schools and variation in financial distress. Doing so would better illuminate the processes of college persistence.

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Overall Introduction

The costs of college extend far beyond the financial costs of attendance. There are and psychosocial costs in the form of stress, depression, and anxiety (Peltz, Bodenlos, Kingery & Rogge, 2020; Aselton, 2012). These extensive costs are greatest for students that juggle both school and paid employment are experiencing financial distress, do not see themselves reflected in the larger student body and faculty, are less integrated into campus life, and experience a cultural gap between their precollege and college contexts (Goldrick-Rab, 2016). Understanding these and other psychosocial costs is of increasing importance because researchers have established that ability, academic preparation, and financial resources don't explain the whole picture of college persistence (Arellano, 2020). Obtaining a college degree is now the most viable path to upward mobility in the USA and because there exists racial-ethnic disparities in degree attainment the inequality continues to grow (Merolla, 2018; Jeffery, 2020). Approximately 40% of Black and 52% of Latinx freshmen obtain their degree within 6 years, compared to 63% of White and 70% of Asian students (Kena et al., 2014). And they have significantly more student debt than White and Asian students (Grable & Joo, 2006). People who have a college degree are more likely to pay taxes, donate and community organize (Cunningham, 2006; Hill, Hoffman & Rex, 2005). The benefits are clear and undeniable for the benefits for the college degree. Enrolling but not finishing the college degree can have detrimental effects on life outcomes especially since federal grants have gone down (Baum, Ma & Payea, 2013).

We add to the literature on the college persistence of high aspiring Black and Latinx college students by considering the ways in which financial distress shape motivation to persist broadly; and we consider the ways in which financial distress interact with self-efficacy, sense of

belonging, social support and institutional type. Understanding how Black and Latinx make sense of their first year is vital (Tinto, 1993).

Financial Distress and college persistence

Researchers have found that some pre-college characteristics such as aspirations or goals are important for choosing to attend college (Arellano, 2020). A desire for what college can provide is an important factor for college enrollment; students must want to go to college in order to go through the work necessary to enroll. Aspirations consist of a desire to become a certain person and to experience certain things that only college has to offer. So, these reasons for going to college demonstrate an important goal commitment for these youth as they reflect their own desire as well as the desires of their parents. Researchers have found that reasons for going to college reflect aspects of a students' identity that are important for motivation (Oyserman & Destin, 2010). Aspirations then can reflect a consistent, continuous desire for certain self and type of future. High aspirations have been found to be related to persistence for black and Latinx college students: through GPA and academic work (Roksa & Whitley, 2017) and direct decision to stay or not (Allen, 1999). Not having a clear desire or reason for going to college can lead to leaving college (Dietsche, 2009). Black and Latinx college students aspire to expand their horizons and learn (Manzano-Sanchez, Matarrita-Cascante & Outley, 2019; Buttaro, Battle & Pastrana, 2010) Black and Latinx college students also desire to attain a particular standard of living (Twenge & Donnelly, 2016) and they wish to make their family proud, this would be especially the case for first generation college students (Holland, 2020; Stein, Cavanaugh, Castro-Schilo, Mejia & Plunkett, 2019). All of these desires reflect a pre-college identity, which imagines a future that can be acquired through college (Oyserman, 2015).

This identity can itself be motivating and assuring, especially for youth who do not experience challenges (Oyserman & Destin, 2010).

Sociologically, at the stage of college choice, researchers have found a strong relationship between financial aid packages and college choice of attendance for black and Latinx college students (Kim, 2004). Psychologically, researchers have found that black and Latinx adolescents don't aim for college educated futures because they feel that college is out of reach not academically, but financially. Destin and Oyserman (2010) finds through experimental manipulation that perceptions of futures where a college degree was necessary was malleable with the introduction of financial aid information. Other studies have found that the introduction of financial aid *information* itself can have a major effect on how black and Latinx youth begin to imagine their futures (Owen & Westlund, 2016). This demonstrates a heightened sensitivity to the relationship of finances and college for black and Latinx adolescents. In other words, finances play a role in general for college completion for students. Destin and Svoboda (2018) in some ways substantiate a claim made by St. John and Nora (2000, pg. 3) that "If students do not have sufficient resources, their academic work suffers."

For example, Kim, DesJardins, and McCall (2009) found that expectations of financial aid and sensitivity to aid differed by income with low-income students being more sensitive to amount of aid in making college attendance choices than their higher SES counterparts. Experimental studies show that the type of aid matters; the inclusion of more grant versus loan dollars increased the persistence of low-income students (Goldrick-Rab, Kelchen, Harris, & Benson, 2016). Goldrick-Rab, Kelchen, Harris, & Benson (2016), through a field experiment, untangled the effects of amount and type of financial aid on attendance and persistence. They argued that increases in grants reduced the out-of-pocket expenses of students, and these effects

were particularly strong for working class students above and beyond the effects of providing access to the same amount of aid money through loans in financial aid packages. This has substantial implications for future educational inequality because loans have become an increasing share of financial aid packages (Snyder & Dillow, 2015).

Appropriate college adjustment is characterized by finding social and academic community on campus and feeling a sense of ability to manage the continual task of college at the start of freshman year transition (Tinto, 1993). However, college adjustment is troubled for black and Latinx college students as they are more likely to be first generation, low income, and experience issues of racial and ethnic microaggressions (Hope, Keels & Durkee, 2017). All of these factors produce challenges for black and Latinx students in their development of self efficacy and sense of belonging in a university (Hussain & Jones, 2021). Students develop self efficacy in university by feeling like they are able to handle to the challenges of attending college (DeFreitas, 2012).

Financial distress is believed to affect student well-being and achievement via diminished feelings of belonging and commitment to educational goals, heightened doubt about the benefits of college, and stress (Cabrera, Nora, & Castaneda, 1992). Financial distress is a student's perceptions of the adequacy of their finances in meeting financial demands rather than the actual amount of debt and unmet need (Lange & Byrd, 1998; Cherney, Rothwell, Serido, & Shim, 2020). Financial distress measures that capture perceptions of adequacy of financial resources, perception of debt burden, and worry and anxiety about one's financial situation have proven to be more accurate and predictive of college persistence than the actual amount of debt and unmet need (Joo & Grable, 2004; Archuleta, Dale, & Spann, 2013). Because students vary in their access to financial resources, distress is not determined by an absolute amount of debt. The

distress created by \$10,000 of unmet need for one student may be less than the distress created by \$2,000 for another depending on wealth and access to credit. It is the fears and uncertainties—whether and how one will pay for tuition, food, housing, and required textbooks—that link financial distress with educational outcomes (Cabrera, Nora, & Castaneda, 1992; Nora, Cabrera, Hagedorn, & Pascarella, 1996).

Financial distress can also affect college persistence through decreasing subjective wellbeing (Cherney, Rothwell, Serido, & Shim, 2020). Decreased subjective wellbeing can be brought on by financial distress via the affective and cognitive elements of worrying (e.g., being upset or sad). These affective states can lead to demotivation in mild cases. Financial distress is associated with increased physiological arousal with high financial stress being related to low help seeking and action (Grable, Hao & Rabbani, 2015). These affective states can lead to depression (Bridges & Disney, 2010). But it could also lead to demoralization.

Financial distress could lead to demoralization a psychological condition distinct from demotivation or depression (Clarke & Kissane, 2002). Demoralization is a psychiatric condition characterized by persistent feelings of subjective incompetence (i.e., not knowing what to do) and psychological distress (e.g., feeling upset, sadness, anger). This state is caused by internal and external stressors, such as paying for college, and difficulty coping when it is expected and/or everyone finds it easy (e.g., Goldrick-Rab, 2016). This leads to feeling like one is not meeting up to the expectations of others, lower self-esteem and eventually a sense of rejection, isolation, or alienation (Robinson, Kissane, Brooker, & Burney, 2016). Ultimately, persistent feelings of not knowing what to do coupled with psychological distress leads to hopelessness. Perceiving future as negative can affect the psyche.

Previous research has articulated that financial distress can lead to leaving through decreasing subjective well-being due to stress and worry (e.g., Cherney, Rothwell, Serido, & Shim, 2020). However, there is no work that looks at how financial distress may lead to leaving and leave the college students demoralized. This is important because feeling like one is incapable of handling challenges that others expect them to may lead to a sense that this is not for them, or incongruence and a sense of embitterment or loss, especially for first generation college students (Stephens, Townsend, Markus, & Philips, 2012; Nanni, Caruso, Sabato & Grassi, 2018). It is possible that experiencing high financial distress may lead to demoralization, a psychiatric condition similar to depression (Tecuta, Tomba, Grandi, & Fava, 2015; de Figueiredo, 1993). Demoralization is characterized by feelings of subjective incompetence, feelings of upset or anger, and a loss of meaning (de Figueiredo, & Frank, 1982; Kissane, Clarke, & Street, 2001). This condition can worsen the outcomes of other psychiatric condition and health (Clarke & Kissane, 2002). Thus it is important to understand the character stopping out if it is demoralization they may not return. We add to literature by considering how students deal with financial distress and come to understand themselves on campus.

Demoralization in this sense can be viewed as a condition characterized by negative life events being ascribed to internal (i.e. subjective incompetence) and stable (i.e. hopelessness) causal factors. This may develop into depression if it becomes global (e.g., this applies to all of life) rather than situation specific such as this applies to paying for college (Mangelli et al. 2005; Grandi, Sirri, Tossani, & Fava, 2010). Further there exist phenomenological differences between depression and demoralization as it pertains to lack of action. For depression the lack action is driven by a decreased magnitude of motivation; however, for demoralization the lack of action is

driven by a sense of subjective incompetence (de Figueiredo & Frank, 1982; de Figueiredo, 1993, 2013; Cockram et al. 2009).

Social support and college persistence

Social support is a common requirement for health development (Maslow, 1970). Specifically, social support is necessary for a number of positive life outcomes such as reducing externalizing and internalizing behaviors, reducing the likelihood of substance use, increasing the likelihood of helping others and increasing educational outcomes (Heerde & Hemphill, 2018). And it is necessary to reduce some of the negative effects of stress and loneliness amongst emerging adults (Lee & Goldstein, 2016). Social support itself is helpful during important challenges and transitions in life for students of color. For example, Johnson-Esparza, Rodriguez Espinosa, Verney, Boursaw, and Smooth (2021) found that social support reduced depressive symptoms and reduced the strength of perceived stress on anxiety endorsement for Latinx emerging adults. However, sources of social support (e.g., from a friend vs from a family member) for emerging adults of color matter for experiencing certain life challenges (Lee, Goldstein, Dik & Rodas, 2020).

Social support has been found to matter for college persistence (Skahill, 2002). Such social support may manifest as informal mentoring that reduces the mental health challenges associated the freshman year transition (Le, Hsu & Raposa, 2021). Social support is especially important for the persistence of black and Latinx college students who go to primarily white institutions (Gloria, Kurpius, Hamilton & Wilson, 1999). This is the case because black and Latinx college students are likely to deal with racial microaggressions and manage the freshman year transition (Hurtado & Carter, 1996; Keels, Durkee, & Hope, 2017). Social support helps underprepared college students and first generation college students of color through making

them feel as if they belong and providing them with information that guides them in decision making around college (Cholewa & Ramaswami, 2015; Puente, 2017; Gloria & Robinson Kurpius, 2001). This includes buffering against some of the college adjustment issues black and Latinx college students experience at the transition such as anxiety and depression (Johnson-Esparza, Rodriguez Espinosa, Verney, Boursaw & Smith, 2021). Social support seems to protect from stress through increasing self esteem during challenging times (Lee, 2020). Studies show that financial distress has a negative effect on subjective wellbeing (Cherney, Rothwell, Serido, & Shim, 2020). Social support has been shown to reduce the negative effect of financial distress (Tran, Lam & Legg, 2018).

The role of private and public universities in college persistence

College persistence varies by whether a student attends a private university versus attending a public university (Melguizo, 2008; Astin & Oseguera, 2005a). For students who attend public universities instead of a private not-for-profit university take more time to completion—on average closer to 6 years (Melguizo & Chung, 2012; Adelman, 2006). Part of this difference is in the amount of funding that public universities receive versus private universities as private universities tend to be more dependent on donation and endowments (Landry & Neubauer, 2016). These sources of revenue matter as public universities are more likely to push cost of decreasing public aid onto students and families (Goldrick-Rab, 2016). Low SES students are more likely to attend universities with a high dependence on tuition for a source of all its revenue and low financial resources (Titus, 2006). This has negative outcomes for low income college students that attend universities with a large portion of its revenue derived from tuition (Wright-Kim, Perna & Ruiz, 2019). However, private not-for-profit universities are more likely to be able to adjust to the needs of students of color and are more

likely to spend more on student services and student life (Chen, 2012; Melguizo & Chung, 2012). These institutional characteristics have been noted to have an effect on completion rates for black and Latinx college students (Oseguera, 2005). But these findings are mixed in the literature with institutional type not mattering for students of color (Arellano, 2020).

Sample

The Minority College Cohort Study (MCCS) included seven waves of survey data collection between September 2013 to October 2017, and four waves of interviews between July 2014 to August 2018. This study tracked a sample of Latinx and Black young adults who had just graduated from high school and enrolled at primarily white universities in the fall of 2013. They had high expectations of obtaining at least a bachelor's degree. Of the full sample of 533 participants, on a scale from zero to one hundred percent, there was 92 percent confidence on average that they would obtain a bachelor's degree and a 78 percent confidence on average that they would acquire a graduate's degree. Participants were recruited fall of their first year in college, about two months after their fall term started. Administrators from the registrar's office in each university sent out a recruitment email twice over two weeks which detailed the research study and a link to the online survey. Across the five universities, the percentage of black undergraduates ranged from 3 to 18 percent and Latinx undergraduates ranged from 9 percent to 25 percent. The students who received the email were full-time, first-time, first-year students who self-identified on their college application as either African American/Black or Hispanic/Latina/Latino. About 35 percent of participants who responded consented to participants in the study were enrolled at Urban PublicU, 28 percents at Rural StateU, 24 percent at Urban Private U, and 13 percent at Suburban StateU. The mean age of recruitment was eighteen years old and 48 percent of Black and 69 percent of the Latinx participants were first

generation. Only 25 percent of the Black participants were men and only 43 percent of Latinx were men. This gender gap is reflective of the broader gender gap in college enrollment (Davis & Otto, 2016; McDaniel, Buchmann, & Shwed, 2011). The final recruited sample was 41 percent Black and 59 percent Latinx. Participants graduated from 255 different high schools with over 85 percent being in public high schools located in the Chicago metropolitan region.

The Survey

Before study recruitment, the principal researcher, Dr. Micere Keels, and other researchers on the study, had a collective meeting with at least one administrator from each of the five participating universities. Each administrator had a role in “minority” or “diversity” student support services, in order to receive institutional buy in. The meeting was also an opportunity to review and revise the planned survey and identify additional survey topics. The additional topics that resulted from the meeting included: emotional help-seeking expectations, financial and academic actions and experiences, specifically in regard to seeking support from institutional agents in high school and college (Keels, 2020). This was derived from their desire to retain students who leave because they did not seek support until it was too late. The final survey took about forty-five minutes to complete and included these topics:

1. Postsecondary aspirations and expectations
2. Career aspirations and expectations
3. College preparation and planning experiences and supports during high school
4. Social network and social support from family, peers, and other adult mentors
5. Risk-taking behaviors and health and well-being during high school

6. High school curricular and cocurricular experiences and achievements
7. Mental health: anxiety, depression, and stress scales
8. School-based racial and ethnic microaggressions and discrimination scales
9. Racial-ethnic identity scales
10. Civic engagement and political activism scales
11. Romantic relationship experiences
12. Student debt and financial distress

A total of seven waves of survey data were collected: Wave 1 (September to October), Wave 2 (January to February), and Wave 3 (June to July) of participants' first year post-high-school graduation; Wave 4 (September to October) and Wave 5 (June to July) of participants' second year post-high-school graduation; Wave 6 (June to July) of participants' fourth year post-high-school graduation; and Wave 7 (July to September) of participants' fifth year post-high-school graduation. Wave 7 had an extended data collection window to ensure the highest possible final response rate. The response rates for Waves 2 through 6 were above 90 percent, and the final response rate for Wave 7 was 87 percent. This is a high response rate for a five-year longitudinal study that provided only a twenty-five-dollar Amazon.com gift card for each completed survey, increased to thirty-five dollars for the final survey. Participating in the survey was meaningful for the participants as they were told that their opinion matter for helping administrators help students like them.

We add to this literature by explicitly examining the relationship between distress and motivation empirically for first year black and Latinx college students. In doing so, we illuminate

the ways in which financial distress as early as the first semester can influence motivation by the end of the first year. We articulate a model specific for black and Latinx college students.

The Interviews

Stratified random sampling was used to select the interview subsample. The sample was stratified by race/ethnicity, gender, and financial distress. As a result of financial issues being a major factor for college persistence, the subsample was stratified by low, medium, high financial distress. Financial distress was averaged across three survey items: (1) how much difficulty, if any, are you having paying your bills? (2) how upset or worried are you because you do not have enough money to pay for things? and (3) how concerned do your current financial conditions make you about the chances you can afford to complete your college degree? Random sampling with replacement was used until we reached the quota of six participants for each category.

The interview protocol started with chronological questions about their high school experiences, which included preparation for college. Next they were asked about the transition to college, including managing the newfound independence and academic demands of college; interpersonal interactions with peers, professors, and staff at the university; as well as their participation in extracurricular activities such as campus organizations. After these questions, we explored questions that would be relevant for the adjustment of Black and Latinx students attending primarily white universities such as racial-ethnic interactions and racial-ethnic microaggressions. Participants were also asked broadly what their most negative and most positive experience of their transition to college. Finally, they were asked about financial factors, college persistence, and career aspirations. At the end, we ask what advice they would give to help a student like themselves and what advice they would give university administrators trying to help students like them.

Theoretical Framework

College persistence is an important outcome necessary for an industrialized society (Chan, 2016). College persistence is especially important for black and Latinx college students (Jeffery, 2020). Researchers have found that black and Latinx college students are sensitive to financial considerations at the point of college choice or decision to attend and during college (Kim, 2004; St. John, Paulsen, & Carter, 2005). However, less is known about how the experience of financial distress relates to motivation to persist to completion. This is critical because black and Latinx college students lag behind their white counterparts in college completion and are more sensitive to finances (Hu & St. John, 2001)—these issues can appear as early as the first-year or the sensitive transition period to college. Further, as black students demonstrate a lag in college enrollment we must look at the experiences attained in college for some as they potentially serve as evidence to a following generation. In other words, we must examine the process of college persistence for black and Latinx college students. Building on and extending Vincent Tinto's (2017) model of college persistence presented in an article titled, *In the eyes of the student*, we view persistence as a “manifestation of motivation” (page 2). Tinto's (2017) model assumes that students come to college with goals that motivate which leads to persistence. The motivation is malleable to experience during the year, which influences self-efficacy, sense of belonging, and perception of curriculum; depending on whether the experiences are interpreted as negative or positive would it then affect persistence (refer to Figure 1). While this model illuminates important psychological elements of a sociological outcome, it ultimately views finances as something in the background--something that is not seen or at the very least not perceived through the eyes of the student: “Rather [than issues such as finances, family obligations, and work] it is to say that understanding persistence as a form of

motivation that is shaped by student perceptions of their experiences adds another dimension to our understanding of the complex process of persistence and completion.” (pg. 11).

We extend Tinto’s (2017) model by empirically examining the relationship between goals and motivation. But we add to it by considering perceptions of finances as psychological instead of background sociological factors or attributes. This is done in order to assess whether perceptions of financial distress matters for motivation. We focus particularly on first-year black and Latinx college students in order to examine the sensitive period of transition as it pertains to the process of college persistence (Tinto, 1993). Our addition to the literature on black and Latinx college persistence is inspired by a long line of sociological and psychological work examining the ways in which students, particularly students of color perceive the process and experience of going to college and making ends meet (e.g., Goldrick-Rab, 2016).

College persistence has typically been interchangeable in higher education literature in general, and black and Latinx college persistence in particular, with the word retention. However, like Tinto (2017), we view persistence as through the eyes of the students (i.e., “I want my college degree so I will...”), and retention as the aims of an institution (i.e., a university wishes to keep their student population from one year to the next). In this regard, the concepts of persistence and retention overlap with each other as the manifestation of two concerns of connected parties in one endeavor of college completion; researchers have found that students commit to institutions that provide them with what they perceive as adequate financial support (Nora, Barlow & Crisp, 2006). Like Tinto (2017) we assume, but also find, that black and Latinx college students go to college because they want to, which in our globalized industrial world, is an appropriate moral—we can say that the college for all narrative has been successful at least in that regard.

Spencer's Phenomenological Variant of Ecological Systems Theory as a Remedy

The Phenomenological Variant of Ecological Systems Theory (PVEST) was built directly on Bronfenbrenner's Ecological Systems Theory to articulate how individuals from different racial and cultural backgrounds (and particularly marginalized minority groups, with Black American children as an illustrative example) interpreted and negotiated the multiple levels of context laid out by Bronfenbrenner (Spencer et al., 2012; Spencer, 2006). The theory accomplishes all of this from a developmentally-sensitive perspective. PVEST consists of five components: 1) Net risk/vulnerability level (the sum and interaction of risk and protective factors in an individual's environment at a given stage of development, which are potential sources of stress and support); 2) Net stress engagement (the sum and interaction of stress factors that are actually encountered and social supports available to deal with stress encounters – these are risk and protective factors that are actualized); 3) Reactive coping strategies (the sum and interaction of behaviors and attitudes that individuals adopt in reaction to stress encounters, in conjunction with social supports they draw upon); 4) Emergent identities: Stable coping responses (the sum and interaction of coping responses, which form a stable identity for an individual during a particular development stage); and 5) Life stage outcomes (the sum and interaction of tangible outcomes that accrue from this process during a particular life stage, and which impact net risk/vulnerability level, etc. for the next life stage). These five components are connected by bidirectional processes and form a cyclic model that recurs through the life course, as individuals develop and encounter new contexts (refer Figure 2). PVEST has proven to be a comprehensive, theoretical framework to examine human development and identity formation in context for individuals of all backgrounds; and it is through the phenomenology of others that we can see the

ecological world they move through systematically; it was through the power and insight of PVEST.

Through their interpretation of their actions, they begin to make sense of who they are, or an emergent identity, Stage 4 in the theoretical model; this is who they are and this is how they cope. This way of coping, with appropriate support, stabilizes over time into stage specific coping outcomes. We situate college persistence as a stage specific outcome, or the sum and interaction of tangible outcomes that accrue from this process during a particular life stage, and which impact net risk/vulnerability level, etc. for the next life stage. The effects of not attaining a college degree are manifold (Chan, 2016). Financial distress is both a chronic and ubiquitous stressor when experienced for college students during the freshman year as there are no major adjustments to financial aid that can be acquired once they start school, which, for many, inspires the need for an adaptative coping strategy (Britt, Mendiola, Schink, Tibbetts & Jones, 2016). However, if this distress is experienced and not resolved it can lead to demotivation, or decreased certainty, in mild cases or an emergent identity of demoralization in other cases. College persistence, or motivation, serves as an adaptive coping strategy for Black and Latinx college students to acquire their college degrees. Through the model, we see chronic, high levels of financial distress producing demoralization, an emergent identity or continuity of their perceptions of high distress, high incompetence, and low hope and certainty. The current study presents an application of PVEST to better understand normative development of black and Latinx college students who aim to attain their college degree as some face financial distress; through considering college persistence as a stage specific coping outcome that is productive. This stage-specific coping outcome upon the emerging identity found in stage 4 PVEST allows for one to see that from the perspective of black and Latinx college students in which their own

will and drive is what causes them to succeed is being, marshalled through demoralization, as a way to decrease college persistence. PVEST centers the cognitive and affective processes one experiences when struggling constantly to make ends meet for a dream that feels farther out of reach—here the definition of distress is apt as it means to literally stretch apart. As black and Latinx college students face and fail the constant expected challenge of making ends meet, they begin to doubt themselves—they begin to think maybe I can't cope (de Figueiredo, 2015).

The Studies

At the start of the year, some black and Latinx college students experience fairly extreme worry about making ends meet for short term and even in terms of completing the college degree. This extreme worry is more likely than not to offset the positive effects of aspiring to go to college in terms of belief in the college degree. In other words, the experience of worrying about money makes students doubt more than aspirations make them hope. Why does worrying matter. Some studies show that worrying about money and the doubt inspired by that worry can have negative effects on academic performance through cognitive overload (Destin & Svoboda, 2018). My work adds to this finding by demonstrating that this is occurring as early as the start of the first year for black and Latinx students who typically lag behind in college completion.

In Study 1, By focusing on the first year qualitatively, we can perhaps explore the reactive processes of these black and Latinx youth as they navigate differing challenges of financial distress. We see there, I infer, that most students become uncertain of self because money was their biggest issue, it was a major surprise, they received little help from financial aid, and they had to make a number of steps to maybe make ends meet. For a number of students, the demoralization of struggling to make ends meet led to their leaving.

Many black and Latinx youth dream of going to college. Their reasons for going to college run the gamut but major reasons are for a love of learning, to get a good job and to make one's family proud. Their HS GPA serves as a protective measure, as those who were good enough to go to college would have good GPAs. While GPAs are indicative of hard work they are also indicative of internalizing and following instructions—or a sign of a sense of personal control. Regardless, these aspirations are supportive and help to assure black and Latinx students that college is worth it. However, there are many challenges to navigating the first year of college. One of the biggest hurdles is making ends meet. In study 2, we show that being worried or upset about bills, difficulty paying things, and worry about the cost of tuition is ultimately a demoralizing process as their certainty that college is worth it decreases when compared to low financial distress. This indicates that although students have these protective factors the disequilibrium caused by the distress has not be rectified, as those who experienced financial distress at the start of the year are doubtful at the end of the year. I argue that they are forming new emergent identities, as evidenced by the continuity of distress to many elements connected to a future identity through college.

In the third study, we see in the sample, although not statistically significant, there are differences in the ways social support relates to financial distress with social support being more effective at low to moderate levels of financial distress in relation to certainty that the degree is worth the cost. Private schools seem to provide more certainty to students who are experiencing financial distress across all levels when compared to those who attend public institutions.

My dissertation is about how high-achieving, academically prepared, high aspiring, black and Latinx college students become demoralized by the end of their first year, undercutting college persistence. They become demoralized when they experience high to moderate amounts

of financial distress; when they struggle to pay bills, when they worry because of the lack of money, when they become concerned by how the costs of things may make them leave—they struggle to make ends meet in the present, and lose hope of the ends meeting the means in the future. First generation college students are more likely to experience high to moderate amounts of financial distress—the group we moralized to believe in college are entering and being forced out. The worst part, is that, as Goldrick-Rab (2016) has articulated, they leave thinking it was their fault for being unable to pay, which could potentially reinforce not returning. They lost faith because we lost faith, as a society, in the goal we preached.

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Appendix 1

Figure 1. *Tinto (2017) Model*

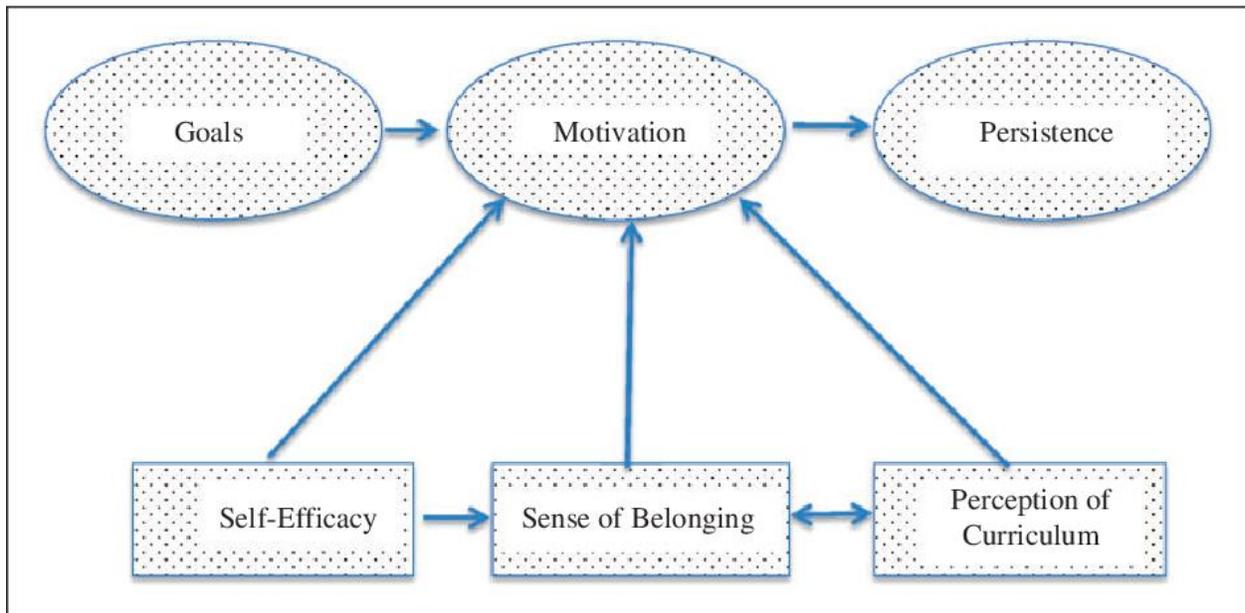
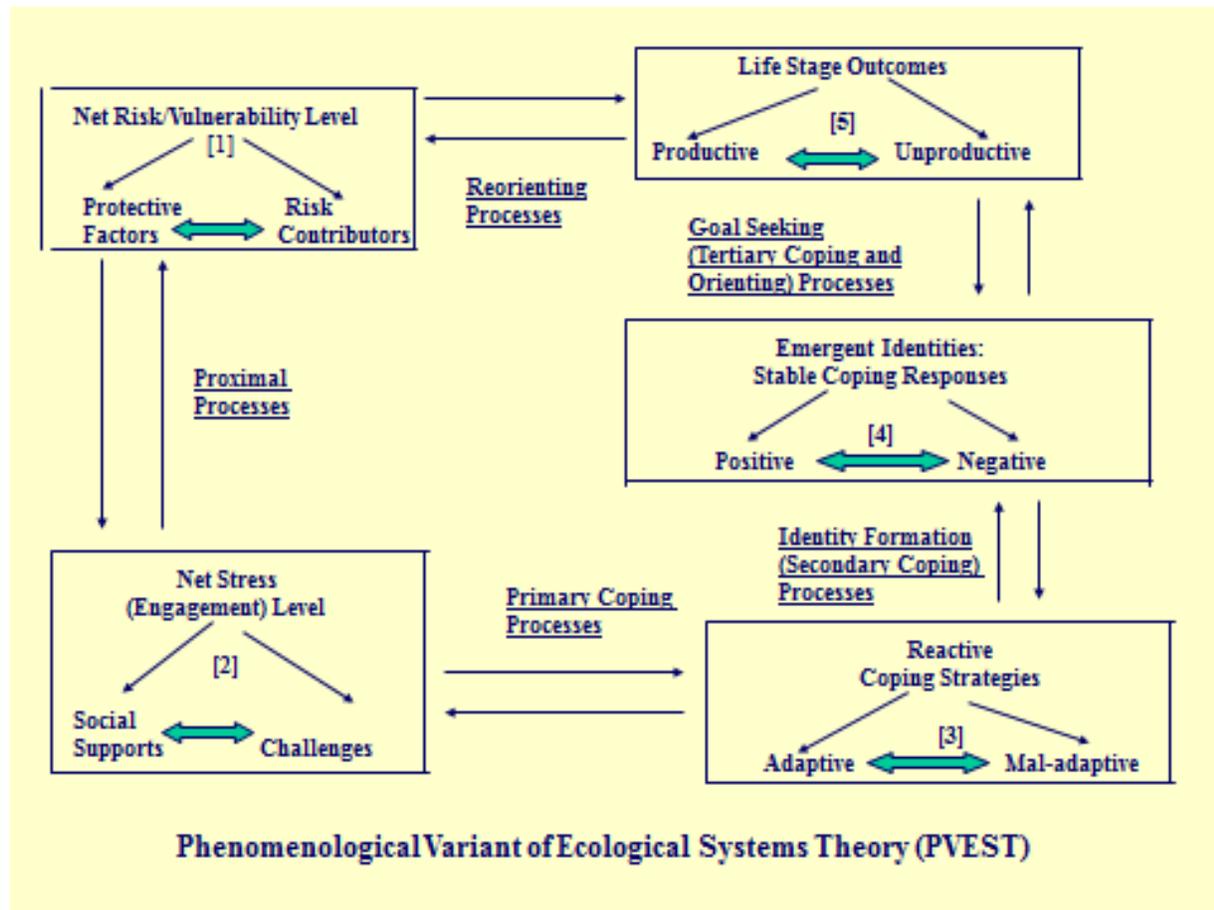


Figure 2. Spencer's (2005) PVEST Model



Paper 1: Emerging Doubts

Abstract:

For emerging adults transition to college, normative social and contextual shifts present challenges that are largely productive for development. But not all student have the same experiences nor do all students manage similar experiences in similar ways. Black and Latinx emerging adults, many of whom are first generation college students, are transitioning to primarily white universities must adjust to college life—while dealing with task of managing paying for college and under financial distress. There is limited qualitative work examining how students of color make meaning of their financial distress while on campus. Our article draws on a mixed-methods study of Black and Latinx emerging adults’ transition to college to investigate how financial distress shape interpretations of self efficacy and sense of belonging. There was much variation in how Black and Latinx college students interpreted their distress to signify subjective incompetence and how they received help and developed a sense of belonging.

Introduction

As the “college for all” narrative has become increasingly normalized and more emerging adults enroll in college, the college experience has become increasingly central in shaping young Americans’ development (Krogstad & Fry, 2014). The college-going years represent a period marked by broad and often intense change, as students must both manage the developmental challenges of emerging adulthood and adjust to different responsibilities and expectations that accompany their transition to a new social and institutional environment (Arnett, 2000, 2016). For the majority of emerging adults, transitioning to college involves navigating social and contextual shifts. But not all students have the same experiences, nor do all manage similar experiences in similar ways. Black and Latinx students are two historically marginalized subgroups that experience disproportionate and unique psychological stress during the transition to Primarily White Institutions (Dancy, Edwards, & Davis, 2018). This is compounded by the notorious difficulty of the freshman year transition and its successful resolution for future college persistence (Kiser & Price, 2008). However, Black and Latinx college students are more likely to stop out (Harper et al., 2011; Maestas, Vaquera, & Zehr, 2007). Some scholars have suggested that beyond academic preparation, social and emotional factors are a major cause of attrition. They argue that feelings of not belonging negatively impact adjustment and persistence (Strayhorn, 2017). These arguments could be developed further by investigating how Black and Latinx students make sense of their financial planning and financial distress. In particular, there is not enough qualitative work examining how these students make meaning of their financial distress that make them feel like they do not belong in college. We suggest that in order to provide better supports for Black and Latinx students’ success and persistence, scholars must be

attentive both to how financial distress is made sense of and how social encounters on campus are shaped by this distress and whether they receive help and feel like they belong.

Adjustment to college for black and Latinx college students

As part of the normative process of this life stage of emerging adulthood, emerging adults are continuing to develop their sense of self through two important processes: the development of self efficacy in college and the development of a sense of belonging in college (Bean & Eaton, 2001; Tinto, 1993). These senses are typically developed throughout the year. These experiences matter for academic achievement, college persistence, and health and career outcomes (Ramos-Sánchez & Nichols, 2007; Hackett & Betz, 1995; Leganger, Kraft, & Røysamb, 2000). In addition, students' concerns about belonging in school settings have been shown to contribute to group disparities in academic motivation and achievement (Murphy, Steele, & Gross, 2007).

Self-efficacy is defined as a person's belief/certainty in their ability to succeed in a specific situation or at a specific task (Bandura, 1977, 1994). It is only one presentation of how individuals come to perceive themselves from experiences and interactions with others and their capacity to have some measure of control over their environment. Self-efficacy is learned, not inherited. It is applicable to specific tasks and challenges. Believing one can succeed in one task does not imply that one believes in the likelihood of success at a different task (Bandura, 1994). Sense of self-efficacy influences, in turn, how a person addresses goals, tasks, and challenges. A strong sense of self-efficacy promotes goal attainment. Persons with high self-efficacy will engage more readily in a task, expend more effort, and persist longer in the completion of that task and do so even when they encounter difficulties (Chemers, Hu, & Garcia, 2001).

Conversely, a weak sense of self efficacy tends to undermine achievement (Bong, 2001; Lent, Brown, & Larkin, 1987; Schunk, 1995; Yuong, Brown-Welty, & Tracz, 2010). As such, self-

efficacy is the foundation upon which student persistence is built. Students have to believe they can succeed in college. Otherwise, there is little reason to continue. Self efficacy can also reflect their perception of their ability to manage the larger task of going to college especially while trying to manage other responsibilities. This is one of many reasons why first-generation and low-income college students do not persist because they have to manage many tasks and responsibilities beyond campus (Cahalan, Perna, Yamashita, Wright-Kim, and Jiang, 2019). Without a belief in one's ability to succeed, even students with the ability to do so may struggle in college and become discouraged.

Believing that one can successfully complete a certain course of action is essential to persistence. But this alone does not guarantee persistence. Students must also come to see themselves as a part of the university community—this includes faculty, staff and their peers—this happens through their participation and input being valued indicating that they matter and belong (Bean & Eaton, 2001; Bergen & Milem, 1999; Kuh, Kinzie, Schuh, & Whitt, 2005; Stebleton, Soria, Huesman, & Torres, 2014; Strayhorn, 2009, 2018). A bond is developed between the student and the university at large, as a commitment, even when they face challenges (Tinto, 1993). Longitudinal findings demonstrate that students who feel socially connected to peers, faculty, and staff are more motivated in school (Furrer & Skinner, 2003). In addition, students' concerns about belonging in school settings have been shown to contribute to group disparities in academic motivation and achievement (Murphy, Steele, & Gross, 2007). The bond develops into a sense of belonging based on the meaning they make from those engagements (Hurtado & Carter, 1966; Strayhorn, 2012). This sense of belonging is mostly shaped by a student's perception of their interactions with peers, faculty and staff and the messages those interactions convey about their belonging or not belonging (Hurtado & Ponjuan,

2005; Stebleton et al., 2014). Students who believe they belong are more likely to persist because they are more willing to engage with others in a way that would enhance their persistence (Hurtado & Ponjuan, 2005; Stebleton et al., 2014).

Members of historically marginalized racial-ethnic groups may be at a disadvantage in building belonging and integrating into college campuses because they are more likely to experience exclusion, intimidation, and alienation (Meeuwisse, Severiens, & Born, 2010; Zepke & Leach, 2005). These feelings are rooted in meaningful differences in their microcampus experiences of racial-ethnic stereotyping, socioeconomic marginalization, and varying cultural expectations in their home and campus communities (Hope et al., 2018; Taylor et al., 2014). Young people from historically marginalized groups are also vulnerable to perceptions that their talents and abilities are doubted and to struggle making friends (Keels, Durkee, & Hope, 2017; Lambert, Herman, Bynum, & Ialongo, 2009).

In sum, Black and Latinx students often experience challenges to their development of self efficacy and sense of belonging during their transition and adjustment to college life beyond the normative ones for college going emerging adults, especially for first-generation college students. These students may be more likely to feel like they are incapable of handling the task of college and *less* likely to feel a sense of belonging on campus (Cahalan, Perna, Yamashita, Wright-Kim, and Jiang, 2019). With our data, we are able to examine within-group differences of these phenomena based on level of financial distress.

The Role of Financial Distress in Shaping the Transition to College

Much of the research detailed above has assumed that students of a given racial-ethnic group will have similar experiences and perceptions of self efficacy, integration, and belonging. However, financial challenges can manifest within racial groups and derail student persistence

(Terriquez & Gurantz, 2015). Objective measures of amount and type of aid matter for Black and Latinx college students' enrollment and persistence (e.g., Reardon, 2011). But , some research studies articulate demonstrate that subjective assessments of financial resources matter for persistence— independent of amount of absolute aid, particularly perceptions of financial distress (Nora, Barlow & Crisp, 2006). Financial distress is believed to affect student well-being and achievement via diminished feelings of belonging and commitment to educational goals, heightened doubt about the benefits of college, and stress (Cabrera, Nora, & Castaneda, 1992). Financial distress is a student's perceptions of the adequacy of their finances in meeting financial demands rather than the actual amount of debt and unmet need (Lange & Byrd, 1998; Cherney, Rothwell, Serido, & Shim, 2020). Financial distress measures that capture perceptions of adequacy of financial resources, perception of debt burden, and worry and anxiety about one's financial situation have proven to be more accurate and predictive of college persistence than the actual amount of debt and unmet need (Joo & Grable, 2004; Archuleta, Dale, & Spann, 2013). Because students vary in their access to financial resources, distress is not determined by an absolute amount of debt. The distress created by \$10,000 of unmet need for one student may be less than the distress created by \$2,000 for another depending on wealth and access to credit. It is the fears and uncertainties—whether and how one will pay for tuition, food, housing, and required textbooks—that link financial distress with educational outcomes (Cabrera, Nora, & Castaneda, 1992; Nora, Cabrera, Hagedorn, & Pascarella, 1996).

Previous research has articulated that financial distress can lead to leaving through decreasing subjective well-being due to stress and worry (e.g., Cherney, Rothwell, Serido, & Shim, 2020). However, there is no work that looks at how financial distress may lead to leaving and leave the college students demoralized. A phenomenological investigation examining how

they make sense of financial distress may shed light on whether they felt they successfully or unsuccessfully resolved their situation or will resolve future college paying scenarios. This is important because feeling like one is incapable of handling challenges that others expect them to may lead to a sense that this is not for them, or incongruence and a sense of embitterment or loss, especially for first generation college students (Stephens, Townsend, Markus, & Philips, 2012; Nanni, Caruso, Sabato & Grassi, 2018). It is possible that experiencing high financial distress may lead to demoralization, a psychiatric condition similar to depression (Tecuta, Tomba, Grandi, & Fava, 2015; de Figueiredo, 1993). Demoralization is characterized by feelings of subjective incompetence, feelings of upset or anger, and a loss of meaning (de Figueiredo, & Frank, 1982; Kissane, Clarke, & Street, 2001). This condition can worsen the outcomes of other psychiatric condition and health (Clarke & Kissane, 2002). Thus it is important to understand the character stopping out if it is demoralization they may not return. We add to literature by considering how students deal with financial distress and come to understand themselves on campus.

Method

Data for the current study come from the MCCS, a mixedmethods, longitudinal investigation of Black (N = 221) and Latinx (N = 312) students who began college in the fall of 2013. Our analysis focuses on data from a subsample of 70 students who participated in the first wave of in-depth interviews and surveys for this project, conducted during the summer after their first year of college. Participants (mean age at recruitment was 18.2, SD = 0.47) came from five HWIs in Illinois: two urban private institutions (24% of respondents), one urban public institution (35%), one rural public institution (28%), and one suburban public institution (13%). Eleven to thirty-five percentage of all eligible first-time first-year students were recruited at each

institution. At all institutions except the urban public one, White students made up over half the undergraduate student population (Snyder & Dillow, 2015). Although Urban State U was not majority White, it is a historically White school, and its racial diversity is relatively new. Urban State U was 8% Black and 24% Latinx; Black and 17% Latinx; Urban Private U was 3% Black and 13% Latinx; Rural State U was 5% Black and 8% Latinx; Suburban State U was 17% Black and 13% Latinx. All institutions had significant ongoing diversity initiatives focusing on recruitment and retention of students of color. Researchers connected with an administrative representative of the diversity initiatives from each campus. Each representative first distributed an e-mail describing the research study and a link to the online survey during September of the 2013–2014 academic year. After following the link, participants provided informed consent and completed a screening questionnaire. First-time, first-year students who identified as African American/Black or Hispanic/Latinx qualified for the study. Students were followed across their first 4 years after graduation from high school. The host institutional review board approved all study procedures. A stratified random subsample of 70 participants, distributed across Black men, Black women, Latinx men, Latinx women, and level of financial distress at Wave 1, was selected to comprise the qualitative subsample. Students completed in-person interviews during the summer months after their first-year of college. The interviews took between 1 to 2 hours to complete, and covered a wide range of topics associated with motivations for and process of applying to college, enrollment decision making, financial factors across their first-year, family and peer factors, and a broad range of experiences across the first-year transition.

Analyses

Our analysis focuses on student's reports of their college transition experiences during in-depth interview. The relevant parts of the interview protocol are included in the Appendix for

review. As a part of the broader M CCS study, the interviews were transcribed by researchers and research assistants and uploaded to Dedoose qualitative analysis software (Keels, 2020). A team of 8 researchers and assistants met repeatedly to discuss a subset of cases and develop a coding plan. Each transcript was then coded by a first coder, and then by a second coder who flagged coding disagreements. The analytic sample for this analysis, that underwent further subcoding, was limited to the 52 interviewees who had at least one U.S. born parent. Abductive analysis was used and broad thematic categories were produced: “college-going support,” “reasons for going to college,” and “freshman year transition/adjustment” and some had more detailed subcodes. For example, freshman year transition/ adjustment included subcodes for “experience of financial distress,” “isolation,” and “social activities,” among others. Abduction refers to the process of producing speculative theoretical hunches for unexpected research findings and then developing these emergent theories with a systematic analysis of variation across a study. This approach depended on iterative processes of working with empirical materials in relationship with a broad and diverse social science theoretical literature. I sought unexpected findings in light of what would have been expected based on literature on identity, financial distress, gender, and enrollment status. This search for unexpected findings will be facilitated through meticulous note taking, memo writing, transcription, and coding of the empirical materials. Through this analytical process I focused on the critical ongoing concern of the study: the relationship between financial distress and college adjustment. Once I define an unexpected phenomenon of interest, I systematically examined the variation of this phenomenon among the data. Specifically, I explored how financial distressed varied across the data, over time, and across situations, at each point redefining the characteristics of the phenomenon of interest in light of similarities and differences. When looking at responses to questions of financial planning,

financial difficulties, future financial planning for college, the most negative experiences of college, and interactions with the financial aid office, I noted the relationship much of this had to efficacy and focused on what happened when their efficacy was challenged when dealing or not dealing with financial costs. This systematic examination of variation over provided us with an explanation of why the phenomenon of interest occurred. Transcripts were then subcoded for topics in discussions of adjustment and belonging (for list, see Table 1).

Results

In our results, we first illustrate how the majority of our participants, regardless of financial distress, described their plans for paying for college. Nearly all the plans students provided were the similar, but the outcomes varied due to financial challenge experienced during their freshman year—to the point of leaving. Second, we show that financial distress is associated with differences in how competent students feel in the present and paying for college in the future. Finally, we illustrate how financial distress also shaped the ways participants either felt a sense of alienation/rejection or a sense of belonging to their respective university or peers. For detailed information about the demographic characteristics of the selected cases please refer to Table 2.

Initial Financial Planning

The overwhelming majority described their initial financial planning. Regardless of financial distress, there were no major differences in planning (refer to Table 3). Many students engaged with a mix of plans that consisted of applying for financial aid, scholarships, receiving grants, working, loans and help from their parents. Some students found the process more difficult than others, with a couple entering college with no financial planning. These findings are consistent across the colleges in the sample. However, while the planning was somewhat

similar the year did not go the way some expected--as some with plans had things change and some without plans had things work out.

Some students shared their initial financial planning and described very little alterations to their plan throughout the year, Sarah, a Black woman at Urban State U, described her initial plans:

My parents said they would help me with like anything else I needed. And I got some awards and scholarships and stuff, and so that's how I was gonna pay with, for it, but I always sort of wanted to get a job cause I wanted to help them out. Cause I don't know, I have a sibling, too, and I didn't think it was really fair for them to be landed with him, too. And I don't know, I wanted to be really cognizant of their situation. I kind of hope to move out at some point, so I decided I'd start working.

While she noted not having any financial difficulties during the year, her interactions with the financial aid office were helpful and supportive of her planning. Sarah described her interactions with a particular person in financial aid administration:

Um, like I said, I went to the Special Scholarships office, and they were super great and really helpful. Um, and then, I guess I haven't really gone to like other places yet. And I should probably go see other places, but they've been pretty helpful thus far. I guess the head of that department I sort of know. I've seen her a couple of times and we kind of know each other from—we kind of know, on a pretty good basis, and I mean, she's really, she really likes what she does, and she's not upset or anything to see you, or annoyed. And she'll see you however many times you feel like going to see her, within reason, and I don't know; they've been great.

For these students, the year went mostly as expected and they were able to focus on adjusting to college life. And the advice they offered the university was to keep up that kind of work.

For other students, their financial planning hit unexpected snags during the school year with varying outcomes. They described their initial financial planning and displayed a belief in those plans. However, the unexpected changes during the school year altered their belief in the initial plans. Some students who experienced financial distress at the start of the year were able to right themselves by the end of it. Jasmine, a Black woman at Suburban State, initial plans

included things Sarah listed, a couple scholarships, two grants and loans but unexpected family issues and college costs caused difficulties for her in the start of the year.

And I think like the only difficult part – I mean other than adjusting and everything that I told you, was probably the like, um, managing my money. I didn't really like think I was gonna have trouble with that, but I did. I think I did the math wrong. For my like financial aid. So like during freshman, first semester, I had to like come up with money out of pocket for tuition. And I also had just like, my parents didn't really send me money or anything. So like I was stuck with like a couple hundred dollars for months at a time. And there were, you know, like books, and just going out and like, realizing that I didn't need to spend money whenever my friends spent money. And I should just, you know, manage my money how it fits me, and not feel like I needed to do things. Or like social – social things, because other people were doing them. Um, yeah just that – just first semester when I had to pay out of pocket. And it came like, we – we didn't plan that, so my parents had to really like find a way to come up with the money.

For Jasmine these issues led her to clarify the kind of career and future as to avoid these issues.

Ultimately, she learned to be more tolerant of herself since things worked out:

I guess after I had a really rough first semester, then second semester it was just like smoother. I guess I realized that like I shouldn't have been as hard on myself first semester, 'cause things did get better, and I should've kept in mind that like, it was just a temporary, you know, state of mind that I had.

But her advice to administrators was to be more involved, “Don't ignore like the personal experiences. Like, don't assume that all students having the same, like in the same situation are going through the same exact thing. So make things a little more personable. To help them through it.”

While Jasmine was able to right herself by the end of the year and be more tolerant of herself, this was not the case for others. Erica, a Latinx woman at Urban State U described her initial planning and how one change altered her whole year:

I thought that my financial aid was going to pay for [everything] but since I had a set back--my roommate had moved out, and so I had to get a different housing plan and I ended up having a room to myself, but they ended up charging me an extra... probably about \$3,000. So that kind of messed up my financial plan then I had to go from a payment plan to my financial advisor so that money had to be pretty much be taken out of

pocket and I had to take out some loans so that kind of messed things up a bit. [Housing administration] asked me did I want another roommate or did I want a modified single and I told them that I wanted a single so that's what they gave me. I didn't realize it was going to cause me to have a balance past my financial aid, but once it was done I couldn't take it back.

These experiences were stressful for Erica as she had to manage classes without enough money to buy books:

[My stress] was probably about a 6 or a 7 because I was worried about if I was going to be able to pay off that balance in time. Because originally they had told me that if I couldn't pay it off by the second semester then I couldn't return second semester. So that was a big deal that I was trying to solve. That and not having my books for class. So... not sure if I was even reading the correct material because I was getting material from different books like at the library and things like that. So I wasn't exactly sure if I was getting the correct material for the rest of my classes.

Even though her family offered to help it was not enough to pay it off immediately and Erica got a job she still ended up having to leave college. Erica described what advice she would offer administrators for students like herself, "I think they could explain people's financial aid a bit better and even if they are not getting financial aid explain how much money it would take for them out of pocket and if they have or if they didn't what other type of option they would they be offered in place of that."

This led to her ultimately leaving college with a sense of burden and uncertainty about steps moving forward as she had to repay the loans she took out and pay off the balance before she could return. While this was the case for Erica, some students, with no plans, ended up with things working out. Tiffany, a Black woman at Urban Private U who is a first generation college student, described her initial planning as "coming in with no plan." This led to a rocky year as she struggled to get everything in order:

The only – the other negative thing I would say, is um, financially. Uh, I feel like as a first generation college student, we don't really know what to expect, when it comes to finances. You don't – you may not necessarily know how to manage everything appropriately. Um, I wasn't even sure if I had enough to cover [my university] when I

accepted it. And said I would go to that school, but I did anyway. Because I knew I wanted to go. That summer before school started, I was rushing, trying to do all these private loans, and do everything— trying to get this money, but private loans weren't coming through, so I had to write to [my university] and hope that went through, if that didn't go through, I'd join the ROTC on campus, just so I can try to get the scholarships from the army from being in the ROTC program. But [all the financial difficulties] ended up getting worked out. I was fine with that. That's the only reason why I didn't say that was my first negative experience [given how much stress it caused]. But had that not gotten worked out, then that would've been my first negative experience.

Even though she ended up well, she felt that administrators should do a better job of letting students know how to navigate financial waters. Tiffany described her interactions with the financial aid office as difficult because “everyone was not on the same page” in the answers they provided her. These answers would change from one person to the next making her dread working with them the next year. Her advice to administrators about helping students like her required them to practice empathy:

I would tell the university administrators to think about their own personal experiences that they had and do their best to try to relate it to experiences that, that future student might have. And give their advice based out of that. I don't – sometimes they give out, I feel like generic advice, which is pretty basic stuff like, as long as you get good grades or something you'll be fine, or try hard, work hard. Ah – try and just really be personal with it, and really give them advice they're actually gonna need. Especially when it comes to finances and stuff, you really gotta make sure you give somebody good advice in that area. Or good help, rather. Um... yeah, I mean. You – really have to kind of understand, or put yourself in that person's shoes, as to where they're coming from. You try to give them advice. The power of empathy is gonna favor both of you more if you can really understand what they're coming from, and especially if you are already have a good grasp of what they might be facing. Well honestly, you've gotta be really honest with them. And that's how you can really generate the best advice for them.

The experiences of Sarah, Jasmine, Erica, and Tiffany are representative of how these students planned and managed any unexpected financial occurrences while navigating adjustment to college. Students like Sarah and Jasmin experienced a continuation of their initial financial planning to their future financial planning. However, for Erica and Tiffany, unexpected

financial factors led to differing outcomes with Erica leaving after her first semester and Tiffany staying. However, the advice offered by both to the administrators indicates a sense of desiring self-efficacy. These college students offered advice to students like themselves that encouraged self development and autonomy. The advice they gave the university was simply to help with that process and not leave them on their own.

Subjective incompetence vs subjective competence

While all our participants expressed initial financial planning regardless of financial distress, the ways they interpreted and coped with how their plans played out varied based on financial distress. Students with high financial distress described a sense of incompetence or not knowing what to do about the financial burdens—for some it was about present concerns and for others it was about future financial concerns. These students tended to describe feeling like things were stacking up, that there were steps that were unknown, and that they had to do it own their own even when they did not know what to do. These students demonstrated a sense of not having control over financial planning as it related to college expenses and for some this manifested into a lack of motivation. And they typically blamed themselves for the situation they were in. In contrast, students who were not financially distressed often shared their sense of competence in financial plans for the future by showing little concern or alterations to their planning. These students tended to attribute control and things going well to their financial planning.

Students who had their financial planning frustrated and experienced challenges during the year noted that they did not know what to do. Some of this not knowing what to do was derived from navigating a new environment—but some of these concerns were around how to manage the task of paying for college. Bailey, a Latinx woman at Urban State U, shared her

struggles with paying for college costs. Her financial aid, consisting of scholarships and grants, covered most of her costs with her having to take out 1 loan and pay \$700 out of pocket. Yet, in her case, book expenses and other college costs, as well as an inability to manage things, gave her sense of being lost. Bailey described her experience trying to use a book voucher she was awarded during the school year:

They told me that there was a chance there might be, they just like mislead me, so over the summer it was like, I don't know how he got in contact with me or anything and he was like yeah, he was from the change program at [Urban State U] and he wanted to meet with me, to talk about financial issues and was like, could he help out financially or something like that and he was saying we're gonna figure out how we can help you. So I was like oh my god ok so wonderful, and like met with him, and it had nothing to do with financial aid, it was about you should come to us if you're having problems, and I'm just like what, and he said he would give me a voucher for, like a book voucher for I think he said 200 dollars, to buy books, so when the school year started I went to them and I had to write an ad for them and everything to even get the voucher so I'm like ok, that's cool so I wrote the essay and I gotta prove the voucher and I went there and they were like no we don't give vouchers and I'm like what? But the guy said you give vouchers and he was like no you're supposed to tell us what books you need and we'll get them for you from the university book store and I'm like ok. That was fine too, but I'm just like, ok, like cause I was definitely gonna use my book vouchers to buy stuff from the book store, it didn't end up working out that way and like second semester they didn't give me a book voucher cause I didn't come to their office enough. Cause like if they would have let me know that I had to visit them so many times to get a book voucher, second semester I definitely would have if they had let me know that.

She expressed a sense of uncertainty about future paying derived from her not knowing who to contact:

I don't know, because my awards haven't carried through so it's weird so I have to go talk to them about hopefully work stuff out, and as far as books I'll hopefully do the library thing again, and I don't know, I don't know. Because I didn't even apply for the same scholarships that I applied for the first semester. I mean last year. And I tried to find out about scholarships that [my university] provides, but I didn't even know who to talk to about them so I don't know what I'm gonna do.

But she feels that more guidance would offset the issues students like her experience:

I know there's a lot of students you have to deal with, but try to be prompt about things and not be like nasty, not nasty because I mean we only ask so many questions because we honestly don't know what to do so I just felt like, cause some people are actually helpful and some aren't, so, I don't know, be, the ones that aren't too helpful, just I don't know, be more helpful.

For Sophia, a Black woman at Urban State U, her first few weeks were pleasant until she had issues with her roommates and her lack of sleep and, “then by my fourth, fifth week, I was like, ok, I can’t, I can’t do it.” She had to leave college due her grades and stressing about her inability to handle the college costs associated with attending college: “You owe this, you owe this, and it keeps stacking up and I’m like, oh my, what can I do.” She applied for financial aid but it ended up not being enough to cover her tuition. Her advice for students like herself is to save up money and apply for financial aid. She wanted to return to college but had to finish paying off what she owed in a balance and in loans with her job. However, her advice to administrators reflect her belief that they could have done more to help: Be sensitive because you don’t know where they are coming from, rather than something emotional, you know, [it could be] money wise. Whatever they are coming from, just figure out what the situation is at first.”

Money stress and college adjustment led to Sophia leaving college, though she expressed a desire to return it was only when she felt competent to manage the finances without anyone’s help due in part to the situation that happened her past year. Alice, a Latinx woman from Urban State U, also had issues paying for college. For her, the issues with money and other college adjustment led her into something she described as a depression.

First, I attended college broke, so I ended up taking out loans, I was backed into a wall, and I didn't have a job, I couldn't get any type of financial support from my family because they don't make much money anyways... so for weeks, I didn't have all my books for classes, so with all that, I lost all motivation, so at first I could go through the classes, after a while I stopped attending and going to classes, and I had a lot of personal issues

going on, and that really affected me and I was really depressed. I was depressed for a long time anyways, I think everything kinda came out the second week of classes and I didn't know what to do, and I started taking counseling towards the end of the semester.

Her not knowing what to do was a source of distress that she attempted to alleviate through counseling. She goes on to detail how personal and financial issues led to a depression.

Before I officially started college, I actually participated in activities with the university. [The event made me excited] I even helped with the first act for my college in music and I was in freshman orientation and stuff, so I was very excited and I was very active, but once I got into class I generally realized that I would not be able to make it, I wasn't where I needed to be and financially and I had no motivation.

Alice found finances to be a huge derailment for her and she did not know how to manage it all.

The difficulty with finances and not having books for courses led to a depression that worsened her academic and financial situation:

And now recently, this past whole week, I just found last minute they took away my financial aid this spring semester for the spring semester because of my failing all my classes, and I just gave up because I realized that last year I wanted to just go, I thought that by the second semester I would have anything together ... so I just kinda gave up and stopped going to classes and recently this week [the administration] sent out an email at the last minute. They didn't even say, they didn't specify that they took away my financial aid, and so now I have a balance of \$7,000 that I either. I have to find a way to pay for that, so I was talking to some financial aid reps, and they were telling me how there is no way I can get a payment plan, I have to pay straight out of pocket, and I've only, she was so rude on the phone, and she told I should probably just take out a loan.

Her continued issue with finances led her to not wish to return to her university. The university as unhelpful in setting up a payment plan and told her to take out a private loan.

Regardless of that decision she felt that the financial situation affect her psychologically, "It affected me. I feel like I am in a black deep hole, especially if I don't get approved for a private loan, and I need to get approved for a private loan, too, because if I don't it will eventually go into collections and it will affect my credit score and whole living. Because it is a huge deep balance, \$7,000. If you would say 1 to 10, I would say over 1,000. That's how stressed I was."

Although her high school had assemblies discussing college and finances, Sophia felt that there

were, “were so many other [financial] details that they didn’t mention” As a result her advice to students like herself was to take care of their personal finances by having a job and going to a community college before attending a four-year university. Her advice to administrators is to be more aware of actively connecting to students:

I know they had assemblies before, like the orientations and stuff like that? But I feel like they should probably help a student like me and have a talk to the students about the real deal. Because the thing is that they always say how students, that they really could, and have students talk about their experiences but they need a well balanced overall assembly with people who actually went to a university and show all the straight out shots and details. That way the students can make up their minds like "oh yeah, at that point I need to step up and do this and do that before I end up in their situation" you know, it would be a huge impact, it won't be like the school it's just trying to sell you something , it would make you think that the school does actually care about their students a lot more

Conversely, Diane, a Black woman at Urban State U, came to college with no plan anticipating her parents were going to have to pay. Luckily, financial aid ended up covering nearly all of her college costs that year “I actually didn’t plan on paying for my first year. I knew I had to get a job on campus, so I can build up money. But, I got a lot of financial aid. So my dad didn’t really have to come out of pocket with anything.” Given the change in the financial situation, Diane felt that she played a major role in financing her college:

Ah, I play a huge role! Huge, huge role! So since I have a consistent job and everything, um, I can pay for my phone bill, I help my aunt sometimes, and I pay for my own books. I... pay for my own food... I feel like I’m really independent right now, except I’m living with my aunt. But – eventually I want to move out. Like junior year. I definitely play a huge role. So my dad’s done paying for college for me, so... yeah, I guess. I pay, play a huge role for college.

For Diane, that her role allowed her to be a competent/good role model for her younger sister and brother:

Yeah I mean, which is a good thing, I want to build this independence now, so when I graduate from college I’ll be set. And my dad wants me to set an example, for my sister and my brother. So they see that I’m handling my responsibilities. So they should do the same thing.

Her advice for students like herself is to be involved in campus activities and be vocal while being responsible and having fun. Her advice to administrators, even though her year went well, was to be more involved with students: “I want them to get more involved with us. I feel like they’re not that involved with us, I feel like it’s just whatever. Like I feel like they should do like a check-up appointment with each student, here and there I mean some appointments are mandatory, but I feel like they should make more mandatory appointments, just to make sure we’re on track and everything. To make sure – ‘cause college, you need the electives to graduate. So I’m just, gonna double-check, ok, are you on track. Are you doing this, are you doing that? I want to say, for them to be more like a parent. Just more – involved in our college lives, I feel like.”

Donnell, a Black man at Suburban State U demonstrated a similar sense of competence about his finances about it moving forward but his parents were able to help: “They really took the load on this one. Um, they, they – all the loans and stuff – not all of them, but a lot of the loans, they’re paying off. I’ve got loans for myself of course, I’ve gotta pay off. But ah – they’re really helping with it, by paying for it. And they’re like, We can’t really afford it, but we’re gonna do it because, you – you’re gonna need this in the future. Stuff like that. So they’re really taking a big step into it, and ah helping me a lot with this.” However, for Donnell he felt that the university administrators were doing a good job already “showing students how to do this if they want that”.

Justin, a Black man at Urban Private U and a second-generation college student, described a similar situation as Donnell in which his parents take most of the brunt of paying. His confidence was derived by his parents shouldering the burden of paying for college while he offered what financial support he could back to his parents: “Uh... mostly loans, and my parents

are also paying for most of it. So they're helping out in a significant way. They're my main support." He described how he played a role in paying back: "All of the loans are in my parents' names. And, when I've work, I just pay them money." Although he was able to finance his education and experienced low distress throughout, he gave two pieces of advice for administrators trying to help students, "Lower tuition. Lower tuition, lower tuition, lower tuition." And to help students feel more secure on campus with more security.

Overall, students who struggled with finances displayed a sense of not knowing what to do. In the case of Bailey, her financial situation was rectified and she, in retrospect, still felt that students need more support. This was the case for Sophia and Alice, students who left, and felt a sense of not knowing what to do right and feeling overwhelmed by classes, college adjustment, and paying for college. For students who did not struggle with finances, they described experiences of competence either from paying for college themselves, or paying back their parents, or even acknowledging their support. Even with those students who navigated their finances there was a concern with the cost of college. Ultimately, this sense of competence versus incompetence plays a role in their college adjustment.

Sense of Belonging vs Alienation

Our participants with differing levels of financial distress varied not only in their perceptions of competence of incompetence, but in how university resources were allotted to them. Also, there were differences in how the use of those resources and talking to someone who can understand or help with financial issues led to a sense of belonging or a sense of isolation or alienation.

Chloe, a Black woman at Urban Private U, described her family's effort to pay her tuition. For Chloe, this experience made her very thankful and possibly engendered a sense of belonging because through the support of her family she knew she could make it:

I know that it was hard. But it was never anything that we weren't able to make a payment or anything like that. And I think that's what pushed me so hard. Is because I know how financial aid, like, difficult it is for my parents to like pay for my school. And I'm so thankful for them because I have friends who, you know, their parents told them, well, good luck finding a loan. And--and, you know, are ending--are going to end up in like eighty grand in debt. And I'm just so thankful for them to, like, be doing what they're doing. I mean, it was difficult, but it wasn't anything that was like, I felt like I was going to need to, like, drop out or, you know--when in the end, if I need something, they were--they were there to, you know, help me.

While Chloe's experience dealing with finances hit rough patches because of an assessment of the costs of her college attendance based on her family income, she became more aware of the costs of college and her luck. The advice she offered students was to focus on their studies, ask for help from professors, and spend time with friends. The advice she offered university administrators trying to help a student like herself focused on finances with a reflection of important realities:

Um, I just, you know--I think that they estimated my parents' two, you know--putting towards my college had like twenty-five grand a year. And I'm just--that's like a quarter of, like, their pay check. And I'm just like, do you not realize that there's also the mortgage, there's also other siblings to provide for. You know, just stuff like that. Like, I don't think--they might take that into consideration, but it doesn't quite look like it. I'm just fortunate enough that, you know, I was able to still go to school, but I'm sure that there's students that aren't as lucky as I am.

Sebastian, a Black man at Urban State U, struggled with managing his finances due to "eating too much Wendy's" and being left with "\$300 to last 3 months" and managing his time with all his newfound freedom. Although he had difficulty managing his time with classes, he received a lot of support with registering and handling classes:

I feel like, all around, both my academic advisors have been the most help in this entire time I started out with one, he was here for the majority of the first semester, the first and second semester. He was here for the whole first semester and most of the second

semester. And I met him back in orientation. He was, he helped me out so much in planning which classes I should take, how to get through, how I, how I'll be able to get through all of these courses. What other places that I can go to to get help from to make sure that I am doing as well as I can in class. It was a lot of help. And then after I realized he had left around the end of second semester, I had to make sure that I planned out my courses for the fall and so I was able to talk to my new advisor. I think her name is Mrs. F. Yeah, and she is, she's really nice. So like, she's really really nice and I feel like it's almost more comfortable with me talking to her about all of this school stuff. I feel like she takes her time and she knows how to connect with the students very well without kind of imposing everything. With Mr. M, not to get anything wrong, I mean he was a great advisor but a lot of stuff he was like 'you're here, all right let's get down to work immediately'. And like, with her, it was a little more relaxed and I wasn't, not that I knew I wasn't going there to just get work done cause obviously I was, but it just felt, the environment just felt a little more relaxed. She was able to show me a few things if I were to take classes online or over the summer, she was able to show me some things about getting that stuff done and that helped a lot. But overall, I mean, both of them were a really big help in making sure that I'm getting through taking the classes and signing up for my next ones.

Sebastian was able to manage classes and his finances at the end of the year. His advice to a student like himself was for them to figure out if a university was a right fit for them and that they should take advice from “older people in their life” and read up on their majors. His advice to administrators was more detailed:

If anything, especially at this school, if they want to help the kids here they need to make it cheaper. I know it's not very expensive to pay for college, it's at, well at least here it's not like, it's not as expensive as if you were to go to, I don't know, [other universities in the area], it's not as expensive as those schools but the fact that we are college students or young adults trying to begin our lives and get out into the real world, learn how to work and become a fully integrated adult, it's difficult for students to pay attention and do well in school so that they can become successful adults if they have to worry about financial needs besides their own personal stuff like food and like food and hanging out with friends. Tuition, room and board. All those extra expenses. I mean, those things, can be, I think those can be cheaper and I think that the amount of money that the heads of the college are making right now is, it's way more than the actual need. If they were to cut their salaries in half to help pay for, to help decrease the amount of tuition to run and keep the students at the school I feel like more kids, more students would attend, more students would apply, and it would be easier on the students at the school since the government itself doesn't give out a ton of money. And since applying for scholarships is so difficult nowadays since there's so many kids trying to go to college.

Rodrigo, a Latinx man Rural State U, had a difficult first semester due to unexpected changes in his estimated family contribution, a situation similar to Chloe's. Due to this change

his financial situation made him question his ability to return, he was highly distressed at the start of the year. However, Rodrigo was able to receive help from his advisor: “There was a lot of expenses I had to go through, you know, financial aid didn’t cover everything. I seriously did think I wasn’t going to return for the second semester. But that was until my counselor helped me out and I came through for her and she came through for me by my doing my part, getting good grades, and her part, helping me out, getting a scholarship mid-semester.” While he was able to receive help from his advisor and eventually the financial aid office, he believed that it was unnecessarily difficult to navigate: “[The Financial Aid Office is] sometimes tricky to get around. And, they’re really tricky to communicate with, because it’s really a matter of fact it has to go their way or no way, you know? They were really open to helping out. But I really didn’t know at first that sometimes, they don’t want to. You know?” As a result, his advice for university administrators was to be more helpful because students were leaving and not returning, “just really be open and hands-on to everyone, you know? A lot of these kids, they’re being kind of brushed out of college, you know? Like, they’re scared, um not many of them are in the best financial situation, and, it, it kinda sucks, not seeing people coming back after the first semester, you know? So, if we can get those numbers down to the minimum possible, then that’s when you know you’re becoming a better university.”

Jade, a Black woman Rural State U, was highly financially distressed like Rodrigo and was able to receive timely support at different points. This support was necessary even though she applied for financial aid, worked 2 jobs, she still owed a balance:

I met her through my job. Um, she's my personal guardian angel, actually, um, for some reason, hopefully this is the last semester that I have to go through this. But every semester I find myself owing the school money, not being able to register for class. Like, today at this very moment I owe 800 dollars. Um, and I'm still waiting to come up with the money. So I can work the student life, my schedule won't permit, so, every semester

that I have the problem. I finally met with her if she'd help me find a third job to bring in more money, and, you know, when, during winter break I was working actually. Last year. And I was snowed in. We had such a horrible snow storm, I couldn't leave the building. Maintenance hadn't gotten out, or anything. Luckily like, you know, the lights and nothing was damaged in the building, cause I was stuck there. And I was like, down to my last pack of noodles, and I was like, I called her and I was just like, I don't know what to do, I'm starving. And, she came, she called, like, please say that in regards to them clear out the front doors. And finally when they got everything cleared out she brought me a big thing of groceries.

While Jade was able to advocate for herself and fundraise money at different points to pay for college from multiple organization on campus and a few outside of campus, she also received help from particular people on campus. Even though she received help from other organizations on campus, her experience with the financial office left much to be desired:

It was the most stressful thing ever. Because so many times that I've told, oh we can't do anything. We can't do anything, or, you need to get a job. Or, they would tell me obvious things. Or, maybe you should, you know, take a semester off and go to community college. Obviously. You don't know my circumstances and the situation that I'm in. I have nothing to go back to in order to go to community college, you know? So, I just like, that's not an option for me. If I'm not in school, I'm out of a place to live, I'm out of an education and I'm out of a job. You know, there's a lot laying on the line with my education. Um, so, it's just the way you say it and how you say it. You know, obviously I learned, don't come off as a complete psycho, crazy madwoman. But let them know, 'Hey I'm not playing. I need this money. Give it to me, because you have no other option but to give it to me. I will work for it. I will prove you wrong if you think that I don't deserve it. You know, um, so I go for it. And that's exactly what I did. And, you know, like, I'd never thought I was as persuasive as I was after this last year. Um, you know. I don't, I try not to use my persuasive way to get to people, that's like that's kind of bad. But, I deserve it, I need it, so if I have to be persuasive, I will.

The advice she gave to the university was for them to be aware of when they were college students. For Jade, if administrators recalled that they would remember, “that you do have the kindness in your heart and don't forget why you're doing it. You know, like, I know that sometimes it gets stressful and difficult, and you're putting your job on the line to help others. But it's worth it. If not one way, then in another. It is definitely worth it.”

While Rodrigo and Jade received help and support that ultimately led to a sense of belonging, this was not the case for Yara and James who ended up leaving due to financial issues. Yara, a Latinx woman at Urban Private U also a second-generation college student, her biggest concern when going to college was finances. Yara found the experience of being a college student to be good, she made friends, had fun, and kept up with her work. But things changed when her mother contacted her and let her know that she would no longer be able to pay. This sent Yara into a spiral: “then I started really worrying and just thought that, well, that if I’m not going to be in school what’s the point of me doing this work and that kind of thing... I don’t know, after a while I just kind of felt really lonely because I don’t have any friends and family near. So I just kind of fell into a depression. and just waited until the quarter was over until I could leave.” Even though she had friends she could not talk to them about her issues because “my friends weren’t the kind of friends I could talk to about problems because they really didn’t understand me and like they asked me a lot of questions ... I don’t know, it was of friends that I would hang out with and go to parties and that kind of thing, so I really didn’t have anybody to talk to and I stopped having fun.” This was the case for Yara even though she applied for financial aid, received a scholarship, took out loans, and had her mother supporting the cost as much as she could.

James, a Latinx man at Rural State U, believed college was meant for him because he “never missed a day of school” and wanted to be an engineer. However, his difficulty handling finances made him question his capability of succeeding at school, even though he found being a college student to be better than he expected before the financial troubles. Here, James detailed how he is unsure why college did not fit, “I don’t know if it was just the school or if it was just me. I’m just gonna go back and say it was me because I didn’t put... I didn’t give the school a

chance.” This feeling of not knowing what to do was reflected in his desire for help to manage his schedule—due to his being lost on campus. His advice for a student like himself was to be more prepared personally and financially. However, his advice for the administration reflected a frustration. This frustration made him feel as if there was no one who would help him:

They just need to branch out more. They had low assistance, like in the financial aid building it was only 2 people working; out of the whole university it was only 2 financial aid people and how is that going to work? You have students, you have over a thousand you know a lot a lot of students, I can't even put [a number to it], but you have more than enough students to be helped and you know that most of the students coming to college are gonna need financial aid assistance. So why not branch out? Why not help them? Give grants, tell us exactly how to get these grants. Tell us exactly how to apply for scholarships and how, you know... Help us... HELP US! I just feel like when that was my problem I went back and forth, back and forth to the financial aid office, back and forth trying to figure out what could I do to reduce my balance so that I would be able to register for this semester. And I just feel like they didn't care. I feel like they didn't care at all and they weren't willing to help me. And if that's the case then you shouldn't be working there because I feel like if I was in that position then I would do anything and everything possible to be able to help student to be able to come back to finish school, to finish their first year. I would definitely do that. I don't know exactly how step by step they should do it, but I just feel like they need to figure something out (participant chuckles). I don't know exactly how, but it needs to be a better way. It needs to be a better way.

Overall, black and Latinx college students who received support during the year when they needed, felt like they belonged on campus. For Chloe this sense of belonging was engendered by what her family did to get her there, in that sense, she belonged because it took so much and there was no other option. For Sebastian his sense of belonging was engendered by receiving support for registering for their classes. Despite them both having low financial distress, their advice was to minimize costs because students were not returning. Rodrigo's experience elaborated on the points Chloe and Sebastian brought up by highlighting that students were coming in scared, uncertain of what do, worried about money, and not coming back for their first year. Jade's experience and advice mirror Rodrigo's, both were highly distressed. Jade's advice was for university administrators to really reach out to students and help them. For

both Jade and Rodrigo, receiving timely support helped them develop a sense of belonging on campus. Yara and James, highly distressed students, did not receive help from anyone on campus, felt lost because of financial issues, and began to doubt themselves—either in the form of a depression or in the form of doubting whether college was really for them.

Discussion

It has been reported that Black and Latinx students transitioning to college experience a rude awakening due to the newness of college and the variation in financial distress. These students come in with very similar initial financial planning that has been suggested to work (Castleman & Page, 2016). But during their first year on campus, many are confronted with feelings of subjective incompetence and alienation that generates for some elements of demoralization potentially. Understanding and addressing this dissonance is critical to increasing belonging and indirectly increasing academic achievement, college persistence, and better psychological well-being (e.g., Ramos-Sánchez & Nichols, 2007).

Our findings show that students who come in with initial planning that works and low financial distress, are much more likely to attribute the smoothness of financial elements to their own control instead of feeling like it is not within their purview. In contrast, students who come in with initial planning that does not pan out and become highly distressed, they are more likely to attribute the situation in part to their own incompetence, or not knowing what to do. Students with differing levels of financial distress also developed a sense of belonging when they received help they needed, including for financial issues. Those who were distressed and did not receive help left school, felt like they were in a deep hole, and felt that there were those who could help but chose not to do so, or they felt isolated and alienated.

Our results contribute to understandings of the college transition for Black and Latinx emerging adults in two ways. First, our findings reinforce that experiences of social belonging are crucial as students cope with stressors caused by college adjustment and finances (e.g., Carales, & Nora, 2020). As emerging adults, students are faced with the challenge of strengthening their own idea of who they are and who they will be and figuring out their place in society—developed through interactions with others in their social-developmental context (Arnett, 2016). As Sebastian shared: “the fact that we are college students or young adults trying to begin our lives and get out into the real world, learn how to work and become a fully integrated adult, it's difficult for students to pay attention and do well in school so that they can become successful adults if they have to worry about financial needs besides their own personal stuff like food and like food and hanging out with friends.” Our evidence shows the way Black and Latinx students’ meaning-making processes in the face of financial distress shape their sense of competence and their sense of belonging. When students interpreted experiences of financial distress as evidence of their subjective incompetence, they became more uncertain about their planning moving forward around financing. This led to some students believing that they did not know what to do or how to handle the task of paying for college, especially given the incongruence with their belief in their initial financial planning. In contrast, students who interpreted their low distress as a sign of competence were more likely to be confident moving forward, and for some it was a reflection of being responsible, ultimately reflecting a sense of success navigating the college context.

Second, this study demonstrates that students’ sense of belonging on campus is influenced by financial distress, but more importantly if they received help for it. When students did not receive help and could not talk with peers about financial issue, they ended up feeling

isolated, feeling alienated, and in many instances feeling frustrated. These students internalized the financial distress as something that only they can deal with—and they could not come to or rely on administrators to help them. They took these experiences to indicate that they did not belong and perhaps college was not the right fit for them. In contrast students who received help when they needed, financial or otherwise, developed a sense of belonging on the campus and were more likely to engage further. These students tended to externalize the cause of their distress, or at least externalize the solution to their distress by receiving help from administrators and staff on campus.

Our findings have implications for universities supporting Black and Latinx emerging adults through their freshman- year transition. Universities need to take within racial-ethnic group diversity into account when providing resources and supports. While some in our sample did not experience financial distress, a majority mentioned financial help as something university administrators need to consider moving forward. Specifically, it is important to provide targeted supports for first generation college students, many of whom are underprepared to deal with some of the financial tasks of college. Students who are first generation might need targeted emotional support and resources help contextualize struggling with finances as something resolvable rather than internalized and insurmountable.

Our data also speak to the need for universities to make a concerted effort to match the effort to recruit as well as to retain (Veenstra, 2009; Offidani-Bertrand, Velez, Benz, Keels, 2019). Our results indicate that students' expectations of the financial reality of college influences how they adjust to financial distress. It is important that universities acknowledge challenges that Black and Latinx students face. Students in our sample seemed particularly upset by the institutional denial of the dissonance they felt between discourse and reality, which only

exacerbated feelings of frustration and marginalization. Universities must also ensure they are creating conditions that foster helpful interactions around financial aid policies and practices. In this regard, it would be helpful for university administrations to facilitate open and honest conversations about how issues of financial realities shape student outcomes on campus. Overall, we recommend that universities pay closer attention to the ways that historically marginalized students make meaning of the social–interactional challenges they face in order to develop supports that are rooted in students’ experiences.

Limitations

While our study highlights certain aspects of Black and Latinx students’ experiences of belonging in their transition to college, it identifies two areas where further research is needed. First, our sample came from Midwestern universities and focused on Black and Latinx students. Our results do not fully represent the experiences of other students of color or Black and Latinx students attending primarily White Institutions in other parts of the country. Second, our analysis focused on participants’ experiences during the first year of college—we did not observe how students’ perceptions of belonging changed over the course of their college trajectory, and their recollection of their financial distress and adjustment were retrospective. Future studies would do well to incorporate a longitudinal perspective, observing how differing financial distress are experienced in the moment, and then observing how these experiences play a role in adjustment and persistence throughout students’ college trajectories.

Conclusion

As our results demonstrate, Black and Latinx college students arrive on campus and experience substantial variation in their college experience navigating financial challenges and developing a relationship with administrators. Financial distress experiences with other matter

for the way that these Black and Latinx emerging adults perceive and interpret their sense of competence and sense of belonging. This is important because the ways these students differentially interpret and cope with experiences of difference shapes how these emerging adults explore new aspects of themselves, try out new roles, and form a sense of campus belonging. Those who have not had the opportunity to develop coping strategies to manage difficult financial situations appear to be most in need of institutionally facilitated opportunities to help develop these skills.

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Appendix 2

Selected Parts of the Interview Protocol

1. Did you have any financial difficulties in paying for tuition, housing, or books?
2. Based on your experience so far, how do you plan on paying for college in the future?
3. What were your most negative college experiences over the last year?
4. Once you got to campus, what were your interactions with the financial aid office like?
5. What advice would you give a student like yourself?
6. What advice would you give university administrators to help a student like yourself?

Table 1. Subcodes

Code	Description
College adjustment	Specific reference to experiences or feelings of adjusting to life as college student
Reasons for going to college	Discussion of the reasons they wanted to attend college
College Financial Planning & Understanding	Discussion of their initial financial planning and description of expectations being met or not
Financial Stress	Discussion of feeling stressed and overwhelmed at college by finances
Advice offered to students	Discussion of advice they would offer a student like themselves
Advice offered to university administrator	Discussion of advice they would offer university administrators to help a student like themselves
Isolation	Discussion of feeling isolated or invisible on campus
Supportive relationships	Discussion of importance of developing and building relationships in friendships, find community/network of support, and cope with difficulties in transition
Belonging	Explicit mention of feeling connected or comfortable on campus

Table 2. *Pseudonyms and Key Demographic Information of Interview Subjects*

Pseudonym	Gender	Race	First Generation Student Status (Yes/No)	College Attended	Financial Distress at start of year
Sarah	Female	Black	Yes	Urban State U	Low
Tiffany	Female	Black	Yes	Urban Private U	Low
Jasmine	Female	Latinx	Yes	Suburban State U	High/Moderate
Alice	Female	Latinx	Yes	Urban State U	High
Bailey	Female	Latinx	Yes	Urban State U	High
James	Male	Latinx	Yes	Rural State U	High
Erica	Female	Latinx	Yes		High
Donnell	Male	Black	Yes	Suburban State U	Low
Diane	Female	Black	Yes	Urban State U	Low
Justin	Male	Black	No	Urban Private U	Low
Jade	Female	Black	Yes	Rural State U	High
Chloe	Female	Latinx	Yes	Urban Private U	Low
Rodrigo	Male	Latinx	Yes	Rural State U	High
Sebastian	Male	Black	Yes	Urban State U	Low/Moderate
Yara	Female	Latinx	No	Urban Private U	High
Sophia	Female	Black	Yes	Urban State U	High

Table 3. *Initial Financial Planning*

Anticipated sources of support	High Financial Distressed Youth	Low to Moderate Financial Distressed Youth
FAFSA, Scholarships, Grants	10 (45%)	16 (51%)
Parents	3 (14%)	6 (17%)
Loans	4 (18%)	4 (14%)
No Plans	5 (23%)	2 (8%)
Job	N/A	1 (3%)
Military	N/A	1 (3%)
Total	22	29

Paper 2: The Evidence of Things Not Seen

Abstract:

The current study examines how the experience of financial distress relate to certainty that the college degree will payoff among Black and Latinx adolescents and emerging adults, certainty that is important for college persistence. Furthermore, we investigate the roles of aspirations, SES, and GPA as alternative explanations. In a representative/fair sample of 533 Black and Latinx first year college students we found that the experience of financial distress at the start of their first year was related to decreased certainty in the college degree paying off by the end of their first year. Among Black and Latinx college students, for those experiencing high amounts of distress, certainty decreased substantially. For those experiencing moderate financial distress at the start of the year, certainty decreased but not as substantially. Aspirations did not increase certainty as much as distress decreased certainty. While SES only moderately increased certainty in being able to repay loans in the future. Findings highlight the importance of investigating perceptions/experiences of financial distress as a feature that extends beyond the individual. Furthermore, these findings underscore how phenomenological variation in experience of financial distress influence adolescent and emerging adult certainty about the college degree, and ultimately undercut persistence.

Introduction

People having college degrees is beneficial to the individuals themselves and society (Abel & Deitz, 2014). The benefits for individuals who have a college degree outstrip those who do not (Chan, 2016). For incoming freshmen black and Latinx college students, a disproportionate amount do not persist till their college degree (Jeffrey, 2020). College completion should be better viewed as college persistence since it is from the perspective of the student to persist (Tinto, 2017). For black and Latinx incoming college students, financial factors matter for college completion (St. John, Paulsen, & Carter, 2005; Page & Scott-Clayton, 2016); as does aspiration and motivation, especially for racially marginalized college students (Allen, 1999). Researchers have found that the intangible benefits of financial factors facilitate college persistence by influencing academic and social integration for racially marginalized college students (Nora, Barlow, & Crisp, 2006). Less is known however about how experiences of financial distress relate to college persistence through motivation, and how this compares to the influence of aspirations on college persistence. This question is critical to the health of our society and economy because those with college degrees are more likely to community organize, pay higher taxes, and reduce government spending (College Board, 2019; Schaefer, Wilkinson, & Ferraro, 2013). Further, by some estimates, between 2013 to 2015 if black and Latinx graduates earned degrees at the same rate as their white counterparts, the United States would have 1 million more college graduates in just those 3 years (Libassi, 2018). Thus, it is important to understand factors associated with Black and Latinx college students' propensity toward college persistence. In this current study, we extend the existing literature on Black and Latinx college persistence and investigate how experiences of financial distress relate to motivation to

persist through college. And we examine the relative strength of aspirations to college persistence.

College persistence is typically understood as a 4 year process, but the freshman year transition is the most important for persistence (Tinto, 1993). The freshman year transition is more likely to undercut the stubbornness necessary to get to the end as students become inundated with many new challenges (Clark, 2005; Peel, 2000) Within this freshman year transition, black and Latinx college students need a certain level of stubbornness and motivation to persist (Allen, 1999). Focusing on motivation when thinking about college persistence for black and Latinx college students because it is motivation that has been found to be strongly related to persistence (Schweinle & Helming, 2011; Hwang, Echols, Wood & Vrongistinos, 2001). Tinto (2017) articulates college persistence as being motivation consisting of pre-college goals/aspirations and motivation, which is malleable especially in freshman year. Motivation or the desire for a college degree is influenced by experiences during the year which either help or hinder self-efficacy, the development of a sense of belonging via social and academic integration, and the perception of curriculum (Tinto, 2017; Bean & Eaton, 2001;). For racially marginalized college students, motivation for a college degree also consists of *belief* in being able to get a good paying job, *belief* in being an ability to pay off loans, and a *belief* that it was worth the effort, which reflects a larger generational shift towards an motivation for extrinsic reasons (Thomas, Wolters, Horn & Kennedy, 2014; Chan, 2016; Ovink, 2017). In other words, motivation and perception of the relevance of curriculum should be expanded to consider it as the perception of the relevance of the *credential*—because it is the credential and not just the curriculum that is being used for entry into various workplaces and careers. By assessing motivation as a multidimensional construct, we can account for the differing psychological

mechanisms that may lead to different magnitude of motivation. Finally, researchers find black and Latinx youth differ in the pathways towards completion with motivation being a more important factor than for their white counterparts (e.g., Allen, 1999). Thus we consider what relates to Black and Latinx college persistence with a model that focuses on motivation around concerns of social mobility.

Aspirations and College Persistence

A desire for what college can provide is an important factor for college enrollment; students have to want to go to college in order to go through the work necessary to enroll. Aspirations consist of a desire to become a certain person and to experience certain things that only college has to offer. So these reasons for going to college demonstrate an important goal commitment for these youth as they reflect their own desire as well as the desires of their parents. Researchers have found that reasons for going to college reflect aspects of a students' identity that are important for motivation (Oyserman & Destin, 2010). Aspirations then can reflect a consistent, continuous desire for certain self and type of future. High aspirations have been found to be related to persistence for black and Latinx college students: through GPA and academic work (Roksa & Whitley, 2017) and direct decision to stay or not (Allen, 1999). Not having a clear desire or reason for going to college can lead to leaving college (Dietsche, 2009). Black and Latinx college students aspire to expand their horizons and learn (Manzano-Sanchez, Matarrita-Cascante & Outley, 2019; Buttaro, Battle & Pastrana, 2010) Black and Latinx college students also desire to attain a particular standard of living (Twenge & Donnelly, 2016) and they wish to make their family proud, this would be especially the case for first generation college students (Holland, 2020; Stein, Cavanaugh, Castro-Schilo, Mejia & Plunkett, 2019). All of these desires reflect a pre-college identity, which imagines a future that can be acquired through

college (Oyserman, 2015). This identity can itself be motivating and assuring, especially for youth who do not experience challenges (Oyserman & Destin, 2010).

Identity-based motivation (IBM) theory asserts people attempt to act congruent with their values and beliefs, such as spending more time studying to align their behavior to the expectation that they will graduate from college (Destin & Oyserman, 2009). For example, Destin & Oyserman (2010) found that future identities varied among low-income adolescents; some adolescents held education-independent identities (e.g. becoming a basketball player) and some held education-dependent identities (e.g., becoming a lawyer). Those who held education-dependent identities were more likely to engage in academic activities because they saw a relationship between those activities and their futures—but the adolescents who held education-independent identities were less academically engaged. Adolescents, for whom schooling was not central to their future identities, were less motivated to engage in educational activities, and they were less likely to persist in educational endeavors. Ultimately, desires, or pre-college identity or an education-dependent identity can be motivating or assuring.

Building on and extending Vincent Tinto's (2017) model of college persistence presented in an article titled, *In the eyes of the student*, we view persistence as a “manifestation of motivation” (page 2). Tinto's (2017) model assumes that students come to college with goals that motivate which leads to persistence. The motivation is malleable to experience during the year, which influences self-efficacy, sense of belonging, and perception of curriculum; depending on whether the experiences are interpreted as negative or positive would it then affect persistence; this fits very well theoretically and empirically with education-dependent identities being a manifestation of the congruence or sense of belonging (Tinto, 1993; Oyserman, 2015). While this model illuminates important psychological elements of a sociological outcome, it ultimately

views finances as something in the background--something that is not seen or at the very least not perceived through the eyes of the student: "Rather [than issues such as finances, family obligations, and work] it is to say that understanding persistence as a form of motivation that is shaped by student perceptions of their experiences adds another dimension to our understanding of the complex process of persistence and completion" (pg. 11).

We extend Tinto's (2017) model by empirically examining the relationship between goals and motivation, with motivation/certainty as a manifestation of persistence. But we add to it by considering perceptions of finances as psychological instead of background sociological factors or attributes. This is done in order to assess whether perceptions of financial distress matters for motivation. We focus particularly on first-year black and Latinx college students in order to examine the sensitive period of transition as it pertains to the process of college persistence (Stewart, Lim, Kim, 2015). Our addition to the literature on black and Latinx college persistence is inspired by a long line of sociological and psychological work examining the ways in which students, particularly students of color perceive the process and experience of going to college and making ends meet (e.g., Goldrick-rab, 2016). We also extend this line of research by investigating whether financial distress serves as a demotivating or even demoralizing.

Financial Distress and College Persistence

Financial distress is the subjective assessment of financial resources needed to pay the cost of college (Nora, Barlow & Crisp, 2006). Financial distress is characterized by affective and cognitive perceptions of upset, difficulty and worry; it is a student's perceptions of the adequacy of their finances in meeting financial demands rather than the actual amount of debt and unmet need (e.g., Lange & Byrd, 1998). Financial distress is believed to lead to leaving college through decreased social and academic integration, or decreased sense of belonging (Cabrera, Nora, &

Castaneda, 1992). Thinking about paying for college operates through taking a student's cognitive resources (such resources necessary for performing academic tasks) and taking them away from social activities (such as engagement with student programs). Researchers have found that the identity conflict brought on by even worrying about financial costs in college, can lead to decreased cognitive resources, only for students who *desire* a middle-class future (Destin & Svoboda, 2018). Financial burden includes worrying about repaying loans (Walsemann, Gee & Gentile, 2015). Cognitively, financial distress can lead to decrease focus either through leading students to reduce their distress by working or be distracted by it while in college. Loans are now a necessity in order to finance college (Snyder & Dillow, 2015). But loans can be perceived differently by class, which could have an effect on whether loans are considered distressing to a student (Callender & Jackson, 2005). Financial distress measures that capture perceptions of adequacy of financial resources, perception of debt burden, and worry and anxiety about one's financial situation have proven to be more accurate and predictive of college persistence than the actual amount of debt and unmet need (Joo & Grable, 2004; Archuleta, Dale, & Spann, 2013). Because students vary in their access to financial resources, distress is not determined by an absolute amount of debt. The distress created by \$10,000 of unmet need for one student may be less than the distress created by \$2,000 for another depending on wealth and access to credit. It is the fears and uncertainties—whether and how one will pay for tuition, food, housing, and required textbooks—that link financial distress with educational outcomes (Cabrera, Nora, & Castaneda, 1992; Nora, Cabrera, Hagedorn, & Pascarella, 1996).

Financial distress can also affect college persistence through decreasing subjective wellbeing (Cherney, Rothwell, Serido, & Shim, 2020). Decreased subjective wellbeing can be brought on by financial distress via the affective and cognitive elements of worrying (e.g., being

upset or sad). These affective states can lead to demotivation in mild cases. Finally, financial distress could lead to demoralization a psychological condition distinct from demotivation or depression (Clarke & Kissane, 2002). Demoralization is a psychiatric condition characterized by persistent feelings of subjective incompetence (i.e., not knowing what to do) and psychological distress (e.g., feeling upset, sadness, anger). This state is caused by internal and external stressors, such as paying for college, and difficulty coping when it is expected and/or everyone finds it easy (e.g., Goldrick-Rab, 2016). This leads to feeling like one is not meeting up to the expectations of others, lower self-esteem and eventually a sense of rejection, isolation, or alienation (Robinson, Kissane, Brooker, & Burney, 2016). Ultimately, persistent feelings of not knowing what to do coupled with psychological distress leads to hopelessness. Perceiving future as negative can affect the psyche.

Demoralization in this sense can be viewed as a condition characterized by negative life events being ascribed to internal (i.e. subjective incompetence) and stable (i.e. hopelessness) causal factors. This may develop into depression if it becomes global (e.g., this applies to all of life) rather than situation specific such as this applies to paying for college (Mangelli et al. 2005; Grandi, Sirri, Tossani, & Fava, 2010). Further there exist phenomenological differences between depression and demoralization as it pertains to lack of action. For depression the lack action is driven by a decreased magnitude of motivation; however, for demoralization the lack of action is driven by a sense of subjective incompetence (de Figueiredo & Frank, 1982; de Figueiredo, 1993, 2013; Cockram et al. 2009).

We should think about this as demoralization because it can be insidious and can worsen many life indicators, including prognoses of depression (Rickelman, 2000). If black and Latinx college students are being demoralized they may not return to college, especially if they are

presenting obvious symptoms of depression. Ultimately financial distress leads to demotivation sometimes through depression but no studies look at demoralization as a feature of financial distress amongst black and Latinx college students. Much work considers varying levels of demotivation or leaving college. But demoralization has a distinct outlook and needs to be addressed specifically. Most studies of demoralization have occurred in the clinical/medical context (Tecuta, Tomba, Grandi & Fava, 2015). We add to literature by expanding on how financial distress influences motivation to persist through certainty about the college degree being worth the effort and cost. Specifically, we see moderate financial distress as demotivating. However, high financial distress can be more than demotivating, it can be demoralizing.

PVEST: Theoretical Framework

Phenomenological Variant of Ecological Systems Theory (PVEST; Spencer, 1995, 2006) guides our investigation. PVEST focuses on the phenomenology of others so that we can see the ecological world they move through systematically. This is done through rendering the critical circumstances created through an individual within context making sense of everyday experiences as well as strong affective experiences. According to PVEST, contextual risk factors, such as family SES or resources, create vulnerabilities for black and Latinx youth of color, which contribute to stress and lead to negative life outcomes. PVEST also suggests that in the process of making sense of the environment, making sense of challenges and supports, black and Latinx youth adapt to their environment through processes (actions), affections (feelings) and cognitions (thoughts). Through this process black and Latinx youth come up with actions and interpret the success of those actions (e.g., if it successfully resolved a scenario). Through this interpretation of their actions, they begin to make sense of who they are, or an emergent identity, Stage 4 in the theoretical model; this is who they are and this is how they cope. This

way of coping, with appropriate support, stabilizes over time into stage specific coping outcomes. We situate college persistence as a stage specific outcome, or the sum and interaction of tangible outcomes that accrue from this process during a particular life stage, and which impact net risk/vulnerability level, etc. for the next life stage. The effects of not attaining a college degree are manifold (Chan, 2016). Financial distress is both a chronic and ubiquitous stressor when experienced for college students during the freshman year as there are no major adjustments to financial aid that can be acquired once they start school, which, for many, inspires the need for an adaptative coping strategy (Britt, Mendiola, Schink, Tibbetts & Jones, 2016). However, if this distress is experienced and not resolved it can lead to demotivation, or decreased certainty, in mild cases or an emergent identity of demoralization in other cases. College persistence, or motivation, serves as an adaptive coping strategy for Black and Latinx college students to acquire their college degrees. Through the model, we see chronic, high levels of financial distress producing demoralization, an emergent identity or continuity of their perceptions of high distress, high incompetence, and low hope and certainty. The current study presents an application of PVEST to better understand normative development of black and Latinx college students who aim to attain their college degree as some face financial distress; through considering college persistence as a stage specific coping outcome that is productive. This stage-specific coping outcome upon the emerging identity found in stage 4 PVEST allows for one to see that from the perspective of black and Latinx college students in which their own will and drive is what causes them to succeed is being, marshalled through demoralization, as a way to decrease college persistence. PVEST centers the cognitive and affective processes one experiences when struggling constantly to make ends meet for a dream that feels farther out of reach—here the definition of distress is apt as it means to literally stretch apart. As black and

Latinx college students face and fail the constant expected challenge of making ends meet, they begin to doubt themselves—they begin to think maybe I can't cope (de Figueiredo, 2015).

Current Study

College persistence is a viable and desired life stage outcome for black and Latinx college students. The current investigation extends the growing literature on Black and Latinx college persistence, aspirations, and financial distress. Specifically, we examined whether aspirations were related to motivation to persist, measured as certainty in the worth in the college degree for black and Latinx college students. We also tested whether financial distress was related to motivation for black and Latinx college students. We predicted that college students who report high aspirations would report a positive motivation, or high certainty. We expect that college students who believe that their aspirations can be accomplished through college will be certain in the worth of the degree. We also investigated whether financial distress has an effect on motivation for college students. We expected that moderate financial distress would be demotivating and that high financial distress would be demoralizing. Specifically, we expect that moderate financial distress will somewhat decrease motivation, but that high financial distress will be demoralizing, which can lead to leaving college.

Methods

Procedures

Data come from the Minority College Cohort Study, a longitudinal investigation of 533 Black (N = 221) and Latinx (N = 312) freshmen who began college in fall 2013. Students were recruited from five historically White universities in the Midwest: 24% recruited from two urban private institutions, 35% recruited from an urban public institution, 28% recruited from a rural public institution, and 13% recruited from a suburban public institution. Administrators at each

university distributed an email, to all eligible freshmen, containing a description of the research study and a link to the online survey during September of the 2013. To qualify for the study students had to be enrolled as a first-time, first-year college students and identify as African American/Black or Hispanic/Latinx. Across the five institutions, we recruited approximately 11% to 35% of all eligible freshmen.

Survey data used for this analysis took place during students' first-year of college: early fall term (Wave 1) and shortly after the end of spring term (Wave 3). Retention for each subsequent wave of data collection was above 90%. The [blinded] Institutional Review Board approved study: [blinded] IRB protocol # H10185.

Participants

Participants graduated from 255 different high schools, including 203 public high schools (86% of the sample). Forty-nine percent of Black students and 70% of Latinx students were first-generation college students. Approximately 74% of Black and 58% of Latinx students were female; this is representative of the gender imbalance in college enrollment. The mean age of students at recruitment was 18.2 years old ($SD = 0.58$). Only 8% were foreign-born (6% of Black and 10% of Latinx); however, 57% had at least one foreign-born parent (25% of Black and 81% of Latinx).

Wave 1: Understanding Students' Perceptions of Uncertainty

Regarding students' feelings of uncertainty about college, on the Wave 1 survey, after answering a series of questions about educational and career aspirations and reasons for going to college, students responded to an open-response question that asked: "Please list any doubts that you have about whether college is worthwhile." A total of 196 participants (37% of respondents) provided a written response to the open-ended prompt and these responses ranged in length from

one to ten sentences. Analyses indicated that the response rate for this question did not vary based on any demographic variables in the data set, such as race-ethnicity, gender, parent education, immigration history, or university attended.

Content analysis (Roberts, 2001) was utilized to examine participant responses in order to understand the themes used to describe their doubts. Content analysis is the ideal methodology for organizing large amounts of qualitative data into codes that can be computed with frequencies (Roberts, 2001). The present study followed the steps recommended by Hsieh & Shannon (2005) for a conventional content analysis: full data immersion, exploratory coding to identify initial codes, refinement of codes, development and implementation of a coding hierarchy, validity checks, and examination of results.

The second author worked with two postdoctoral scholars, two graduate students, and two undergraduates to have each response coded by three coders. The content analysis began by having each coder read through a subset of the open-ended responses and creating an initial set of codes. All coders then met to create an exhaustive list of mutually exclusive thematic codes. Each response was then coded by three coders. Each response was given a primary code and could also have multiple secondary codes. Discrepancies in the primary code applied to each response were thoroughly discussed to achieve consensus. The results discussed are based on the primary code applied to each response.

Five thematic codes were identified: (1) no doubt was applied to 30% of responses; (2) doubt about the cost of college was applied to 26% of responses; (3) doubt about the occupational benefits of obtaining a degree was applied to 20% of responses; (4) doubt about the relevance of a college degree to their aspirations was applied to 13% of responses, and (5) doubt about whether they will succeed in college was applied to 11% of responses. The content of

their statements that discussed doubt about the cost of college, occupational benefits, and relevance of a college degree to their aspirations were expressed in relation to whether they would ultimately be better-off by getting their degree considering the amount of financial debt they were accruing.

Doubt about the cost of college included the following set of representative statements:

Here I am paying \$50,000 a year [with grants and loans] roughly for an education; I am concerned if the education I get at [this university] is better than one I would get at a less expensive university. (Latinx student; majoring in business management.)

The biggest issue with college is that it's so expensive. I currently work two jobs and my biggest fear is that while I'm bending over backwards to payoff my tuition, I won't be as successful as I plan to be in the future. (Black student; plans to become a special education teacher.)

The amount of money I'm paying for school stresses me out therefore, I can't focus. (Latinx student; majoring in biology and plans to become a veterinarian.)

Doubt about the occupational benefits of obtaining a degree included the following set of representative statements:

The cost of attendance is so high, and yet there are constant reportings that say there are little to no jobs available. (Black student; majoring in political science and plans to become a lawyer.)

Because of the massive influx of more and more college graduates into the workforce, the

degradation of the monetary value of a college education is highly prevalent. Latinx student; majoring in physics.

Sometimes I wonder if college is worth it because even with a degree, nothing is guaranteed in the current state of the economy. Sometimes I feel like maybe I am just wasting my time, especially when I could instead be learning a useful trade or skill that a college degree doesn't provide. Latinx student; majoring in economics and marketing.

Doubt about the relevance of a college degree to their aspirations included the following set of representative statements:

It costs quite a bit to attend college, and if I am not quite sure what I am going to be doing in my life, college may do more harm than help. (Black student; majoring in advertising and marketing.)

The education we get could be gotten in other ways through independent means. The real thing you're paying for is the degree because that can only be gotten in college. (Latinx student; majoring in aerospace engineering.)

I feel that I am limiting myself in some regards. I still want to pursue performance, but based on my schedule, I would not have time to dedicate to moving my vocal training forward at the rate that it needs to improve without changing majors; however, I am completely aware that the opportunities I get from being in school outweigh those that I would have on my own by far. (Black student; majoring in natural resources and environmental sciences.)

These doubts indicate that students who have demonstrated their commitment to obtaining a college degree by enrolling and incurring debt in service of that goal are plagued by substantial doubt. Additionally, the wide range of majors covered by these responses shows that doubts about the benefits of college were unrelated to the earning potential of the major. These doubts increase the psychological costs of college, making college even more challenging for already financially burdened students, and making college an even more risky undertaking because the doubts themselves can undermine their likelihood of success (Goldrick-Rab, Harris, & Trostel, 2009).

Because only 37% of respondents completed the open-ended question it was important to develop closed-ended response questions that would measure students' level of uncertainty about college, and used in quantitative analyses that would determine the factors that were associated with level of uncertainty.

Wave 1 and Wave 3 Predicting Students' Level of Uncertainty

Measures

Based on the results detailed above we developed survey items that would enable students to quantify their level of certainty about investing in obtaining a college degree, and included these items on the Wave 3 survey. Students used a 0 to 100 slider scale to respond to the following items. The instructions stated, "On a scale of 0 to 100, how sure are you of the following things?" The 3 questions were: (1) "How sure are you that college is worth the cost?" (2) "How sure are you that getting a college degree will get you a good paying job?" and (3) "How sure are you that you will be able to repay your student loans?" The scale was anchored with "totally not sure" at one end and "totally sure" at the other end. The point number was displayed as they moved the slider and selected their response. For descriptive analyses, level of

certainty was divided into 5 categories based on their slider position on the 100 point scale: 1 = 0-20, 2 = 21-40, 3 = 41-60, 4 = 61-80, 5 = 81=100.

Reasons for going to college. Regarding students' reasons for going to college, on the Wave 1 survey students rated their level of agreement with three statements in response to a question that asked, "Why did you choose to go to college?" The three statements were: "to obtain the kind of job I want later on;" "I get pleasure and satisfaction in learning new things;" and "To make my family proud." Students responded using a 5-point scale that ranged from "not a reason at all" to "a major reason."

Financial distress in college. On the Wave 1 survey, 3 items were used to measure students' level of financial distress: "how much difficulty, if any, are you having paying your bills"; "how upset or worried are you because you do not have enough money to pay for things"; and "how concerned do your current financial conditions make you about the chances you can afford to complete your college degree". Students responded using a 5-point scale that ranged from "no difficulty at all/not upset or worried at all/not at all concerned" to "tremendous amount of difficulty/extremely upset or worried/extremely concerned." Items were combined into a scale that demonstrated good internal reliability (Black students $\alpha = .78$; Latinx students $\alpha = .80$). Financial distress was divided into terciles to check for nonlinear relationships.

Family educational attainment. On the Wave 1 survey, students reported their mother/female guardian and father/male guardian's highest level of schooling, and whether any siblings were currently in or graduated from college. Responses to these questions created 4 mutually exclusive categories indicating the highest level of schooling in the family: two parents college-educated, one parent college-educated, neither parent college-educated but sibling in/graduated from college, or neither parent nor sibling college-educated.

Received loans during first year of college. Whether students used any type of loan to pay for their first year of college is based on student report, at Wave 3, of whether they used each of 10 sources to pay for college. If they indicated any type of federal student loan, federal parent loan, loan from a bank, or loan from other private lender they were coded as having used loans.

Parent nativity. Regarding parent nativity, student's report of whether their mother/female guardian and father/male guardian were born in the U.S. was used to create 3 mutually exclusive categories: both parents foreign born, one parent foreign born, or both parents U.S. born.

Gender. Students reported their gender as male, female, or transgender. Two students who identified as transgender were excluded from analyses.

High school GPA. Cumulative GPA was self-reported on a scale from 0 to 4.0.

Analytic Strategy

Several descriptive analyses and bivariate correlations were examined to determine interrelations among study variables (Table 1). Hierarchical multiple regression analysis was performed, with family education level, gender, race-ethnicity, whether both parents were U.S. born, and high school GPA entered at Stage 1, reasons for going to college entered at Stage 2, and financial distress entered at Stage 3 (Table 2). We then estimated model-adjusted predicted probabilities of the three measures of uncertainty based on the categorical financial distress measure, with all other covariates set to their means.

Going to college to make one's family proud was not included in the regression analyses because it was not significantly correlated with any of the dependent variables. Several interactions were examined: interactions between reasons for going to college, between reasons for going to college and financial distress, and between family education level and financial distress, only significant interactions are reported.

Black and Latinx students were pooled and examined together because there were no significant racial-ethnic differences on any of the three uncertainty measures or on the measure of financial distress. Additionally, the interaction between race-ethnicity and financial distress was insignificant in all regression analyses.

Results

As expected, students experiencing the highest level of financial distress were most likely to have neither a parent nor sibling with a college degree, and were least likely to not have any loans (Table 1). Overall, there was a high level of endorsement of each motivation for going to college; average rating of 4.75 on a 5-point scale for going to college to get desired job, 4.23 for going to college for pressure of learning, and 4.33 for going to college to make one's family proud. These motivations were not associated with experiencing financial distress at the start of college (F statistics are shown in the final column of Table 1). There was an overall low level of certainty that investing in obtaining a college degree will payoff; average rating of 71.12 on a 100-point scale regarding feeling certain that getting a degree will lead to a good paying job, 64.12 regarding feeling certain that college is worth the cost, and 4.24 regarding feeling certain that they will be able to repay their loans. Additionally, students who experienced a high level of financial distress reported the lowest levels of certainty about investing in college (F statistic is shown in the final column of Table 1). These findings indicate that overall, Black and Latinx students have a substantial amount of uncertainty about investing in college and that the students who most needed college to payoff for socioeconomic mobility were the least likely to believe that it would.

The gap between student's goals for going to college and the strength of their belief that persisting in college will lead to the attainment of that goal is most clearly evident by comparing

their endorsement of going to college to get the kind of job they want, measured in the fall of first-year and the three measures of uncertainty, measured in the spring of first-year. As shown in Figure 1, 84% of students endorsed at the highest level that going to college to get the kind of job they want was “A Major Reason” for why they enrolled in college. However, only 41% endorsed the highest level of certainty (81-100 on a 100-point scale) that obtaining their degree would lead to a good paying job; only 33% endorsed the highest level of certainty that college is worth the cost; and only 32% endorsed the highest level of certainty that they will be able to repay their loans.

Regression analyses showed that for “certainty that degree leads to good paying job,” none of the Stage 1 control variables were significant predictors and did not contribute significantly to the model, $F(8, 429) = 1.44, p = .176$; they accounted for 1.0% of the variation in students’ responses (Table 2). The inclusion of reasons for going to college (get job I want $\beta = 0.16, p = .001$, pleasure in learning $\beta = 0.10, p = .053$) contributed significantly to the model and explained an additional 4.0% of the variance, $F(2,427) = 11.71, p = .000$. The inclusion of experiencing financial distress (moderate distress $\beta = 0.03, p = .566$, high distress $\beta = -0.17, p = .001$) contributed significantly to the model and explained an additional 3.1% of the variance, $F(2,425) = 10.63, p = .000$. Financial distress had a non-linear relationship with certainty that degree leads to good paying job. Students in the highest tercile of financial distress had significantly lower levels of certainty than students in the moderate and low terciles; students in the low and moderate tercile were not significantly different from each other.

Regression analyses showed that for “certainty that college is worth the cost,” none of the Stage 1 control variables were significant predictors and did not contribute significantly to the model, $F(8, 429) = 1.60, p = .123$; they accounted for 1.1% of the variation in students’ responses

(Table 2). The inclusion of reasons for going to college and their interaction (get job I want $\beta = -0.41$, $p = .010$, pleasure in learning $\beta = -0.84$, $p = .004$, interaction $\beta = 1.23$, $p = .001$) contributed significantly to the model and explained an additional 2.9% of the variance, $F(3,427) = 9.76$, $p = .000$. The inclusion of experiencing financial distress (moderate distress $\beta = -0.04$, $p = .469$, high distress $\beta = -0.25$, $p = .000$) contributed significantly to the model and explained an additional 7.1% of the variance, $F(2,425) = 13.51$, $p = .000$. Financial distress had a non-linear relationship with certainty that college is worth the cost. Students in the highest tercile of financial distress had significantly lower levels of certainty than students in the moderate and low terciles; students in the low and moderate tercile were not significantly different from each other.

Regression analyses showed that for “certainty that will be able to repay loans,” family’s highest level of schooling and gender were significant Stage 1 predictors, and contributed significantly to the model, $F(8, 429) = 3.27$, $p = .001$; they accounted for 4.1% of the variation in students’ responses (Table 2). The inclusion of reasons for going to college (get job I want $\beta = 0.06$, $p = .235$, pleasure in learning $\beta = 0.06$, $p = .204$) did not contribute significantly to the model and explained an additional 0.6% of the variance, $F(2,427) = 2.94$, $p = .108$. The inclusion of experiencing financial distress (moderate distress $\beta = -0.18$, $p = .000$, high distress $\beta = -0.43$, $p = .000$) contributed significantly to the model and explained an additional 12.0% of the variance, $F(2,425) = 42.18$, $p = .000$. Financial distress had a linear relationship with certainty that degree leads to good paying job, with each tercile significantly different from the other.

The model-adjusted predicted probabilities from three different regression equations are shown in Figure 2. The estimates for certainty that college will lead to a good paying job show that students with low and moderate levels of financial distress were not different; a significantly

lower level of certainty was only found for those with a high level of financial distress. This same pattern was found for certainty that college is worth the cost. Certainty that they will be able to repay their loans has both a linear decline the steepest decline with increasing financial distress.

These findings indicate that except for feeling certain in one's ability to repay student loans, it is not a student's social class background that matters for their level of certainty about whether investing in college will payoff. It is a student's actual experiences of college-going financial distress that matters for their uncertainty about investing in college.

Discussion

This study examined whether aspirations were related to motivation to persist, measured as certainty in the worth in the college degree for black and Latinx college students. We found that aspirations were related to greater certainty that the degree was worth the cost, and certainty the degree would lead to a good paying job. Aspirations were not found to be related to certainty in being able to repay loans after college; with regard to financial distress, we found that moderate financial distress was associated with a decreased certainty of being able to repay loans. We found that high financial distress was associated with a decrease in certainty across all three items, which we take as a sign of demoralization for black and Latinx college students. Surprisingly, we find that SES and gender were related to more certain in being able to repay loans. In terms of high financial distress, it is concerning because it can potentially lead to demoralization and leaving college. There were no mean differences in financial distress between black and Latinx college students.

Scholars have proposed that desire for a college degree, or aspirations, are related to college persistence in general, but especially for black and Latinx college students (Allen, 1999; Tinto, 2017). Our findings support this process as we see that a desire for a college degree is

motivating as it increases certainty that the college degree is worth the cost and that the college degree will lead to a good paying job. Findings extend the literature by demonstrating that desire for a college degree is not related to certainty in being able to repay loans. This is a problem as loans have become a major feature of financing for college (Snyder & Dillow, 2015).

Unexpectedly, we saw that for certainty to be able to repay loans that SES and being a woman matters. This can be driven by high financial literacy and awareness of economic returns on the college degree, which those with higher SES typically have (Markle, 2019).

Our hypothesis that moderate financial distress would be demotivating and that high financial distress would be demoralizing were supported. Specifically, we found that moderate financial distress decreased motivation but only in regards to certainty that they will be able to repay their student loans. This finding is supported in the literature articulating that black and Latinx college students are sensitive to financial burden (Destin & Svoboda, 2018; Cherney, Rothwell, Serido, & Shim, 2020). The fact that even moderate distress can lead to uncertainty is troubling as many black and Latinx college students are expected to foot the bill for college (Goldrick-rab, 2016). In regards to high financial distress, we found a continuity or identity with decreased certainty across all indicators. As these youth were aspiring to go to college, high financial distress decreased their motivation or certainty that any of the elements of the college degree were worth it. Given the high aspirations in the sample and the stark relationship relative to high financial distress, it is possible to assume that black and Latinx college students who experience high financial distress at the start of the year, during the freshman year transition, and reported decreased certainty were demoralized (Clarke & Kissane, 2002). Demoralization is characterized by feelings of subjective incompetence (i.e., not knowing what to do), psychological distress (such as upset, sadness, anger) coupled with a loss of meaning (de

Figueiredo, 1993). We assume that high financial distress is demoralizing because most of the black and Latinx college students in our sample have high aspirations, or high hopes and dreams. Given that high financial distress is coupled with decreased certainty in all items can signal a loss of hope for their future which can lead to leaving college. We extended literature on financial stress and college persistence among black and Latinx college students by considering the excessive financial stressors and decreased motivation as demoralization. In doing so, we begin to draw attention to the different potential character driving black and Latinx college student withdrawal. This is a problem as demoralization is situation specific and without an awareness that the demotivation is driven by distress, black and Latinx college students who leave feeling incompetent at paying the cost, may not return.

Limitations and Future Direction

There are some important limitations of this study that point to directions for future research. Our study is limited in that it is a cross-sectional design and were unable to draw causal inferences from this study. Another limitation is that while our sample was drawn from across the Midwest, it was not nationally representative. Furthermore, although we have black and Latinx college students in the sample, there were no mean differences in financial distress. Finally, while we argue that financial distress coupled with demotivation is a signal of demoralization, we do not use demoralization scales to assess it.

Strengths of our study are however, that black and Latinx college students were represented from economically diverse backgrounds. Additionally by considering financial distress as a factor affecting freshman year transition and returning, we were able to note the possibility of demoralization playing an important role in persistence (Tinto, 2017). A framework that considers financial factors from the perspective of the student may contribute to

our understanding of motivation and potentially demoralization (e.g., St. John, Paulsen, & Carter, 2005). Qualitative inquiry can examine how distress interacts throughout freshman year for students of varying levels of distress. This could provide a set of contrasts/comparisons that allow for a sketch of how demoralization appears. This is because the assumption is that students on the other end of distress, or low distress, might be moralized or motivated by financial support (Goldrick-Rab & Kolbe, 2016). Future research examining social networks of college leavers, especially considering demoralization. It could be that some of the recent decline in black college enrollment is driven by a process of demoralized black and Latinx college students spreading the demoralization. This would especially be the case if their experience of demoralization is normalized or expected in how they convey their experiences to people in their network interested in pursuing college. This is counter to the assumption of most recruitment efforts, which seems to maintain that the next crop of recruited black and Latinx college students are disconnected and assumed different from those who left college.

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Appendix 3

Table 4. *Demographic, Covariate, and Dependent Variables, by Financial Distress*

Variable	Financial Distress at the Start of College								
	Total Sample (N= 519)		Low (N= 185)		Moderate (N= 158)		High (N= 176)		F
	M/%	SD	M/%	SD	M/%	SD	M/%	SD	
Family educational attainment									
Both parents college Ed. (%)	16.44		28.80		9.62		9.36		16.98***
One parent college Ed. (%)	23.09		21.74		24.36		23.39		0.17
Neither parents college Ed., sibling in/graduated from college (%)	23.68		21.74		26.28		23.39		0.49
No parent or sibling college Ed. (%)	36.79		27.72		39.74		43.86		5.47**
Loans freshman year									
None (%)	22.91		35.68		20.51		11.49		16.07***
Had loans (%)	61.94		55.14		61.54		69.54		3.99*
Refused question (%)	15.15		9.19		17.95		18.97		4.06*
Immigration history									
Both parents U.S. born (%)	42.25		47.83		38.61		39.66		0.67
One parent U.S. born (%)	13.76		11.41		14.56		15.52		0.69
Both parents foreign born (%)	43.99		40.76		46.84		44.83		1.84
Black (%)	41.62		47.03		35.44		41.48		2.36
Female (%)	64.22		63.78		54.43		73.56		6.74**
High school GPA	3.53	0.44	3.57	0.35	3.56	0.38	3.46	0.54	3.09
Reasons for going to college									
Get kind of job I want	4.75	0.66	4.82	0.57	4.76	0.62	4.66	0.76	2.40
Pleasure & satisfaction in learning	4.23	0.94	4.24	0.91	4.26	0.90	4.18	1.00	0.39
Make my family proud	4.33	1.05	4.32	1.06	4.39	0.96	4.29	1.12	0.41
Certainty about college									
Degree leads to good paying job	71.21	24.54	75.01	23.85	74.60	19.65	63.79	27.63	10.63***
College is worth the cost	64.12	26.86	69.39	26.22	67.45	22.60	55.13	28.96	13.51***
Will be able to repay loans	64.24	27.13	76.29	23.49	64.53	24.39	50.47	26.95	42.18***

Table 5. Summary of Hierarchical Regression Analysis for Variables Predicting Certainty about Investing in College

Variable	Degree leads to good paying job			College is worth the cost			Will be able to repay loans		
	Beta	Beta	Beta	Beta	Beta	Beta	Beta	Beta	Beta
Financial distress, low (reference)									
Moderate financial distress			0.03			-0.04			-0.18***
High financial distress			-0.17***			-0.25***			-0.41***
College to get job I want		0.16**	0.15**		-0.41*	-0.46**		0.06	0.03
College for pleasure of learning		0.10	0.09		-0.84**	-0.90**		0.06	0.06
Job I want x pleasure of learning					1.23**	1.31***			
Neither parent nor sibling college Ed. (reference)									
Both parents college Ed.	0.09	0.09	0.08	0.01	0.02	-0.02	0.18	0.18	0.09
One parent college Ed.	-0.01	-0.03	-0.04	-0.03	-0.04	-0.05	0.05	0.05	0.03
Neither parents college Ed., sibling in/graduated college	0.01	0.01	0.00	0.02	0.02	0.01	0.06	0.06	0.04
Black	0.02	0.04	0.04	-0.02	-0.03	-0.03	0.04	0.04	0.04
Both parents U.S. born (reference)									
One parent U.S. born	0.00	0.00	0.01	0.06	0.05	0.06	0.08	0.08	0.09
Both parents foreign born	0.08	0.09	0.10	0.08	0.08	0.09	0.12	0.12	0.15*
Female	-0.0796	-0.0715	-0.043	-0.0455	-0.0390271	-0.0104	-0.1357	-0.1327	-0.10*
H.S. GPA	0.08709	0.06876	0.05373	0.12*	.11*	0.08862	0.01243	0.00322	-0.0184
R ²	0.008	0.048	0.079	0.011	0.040	0.111	0.041	0.046	0.166
ΔR ²		0.040	0.031		0.029	0.071		0.006	0.120

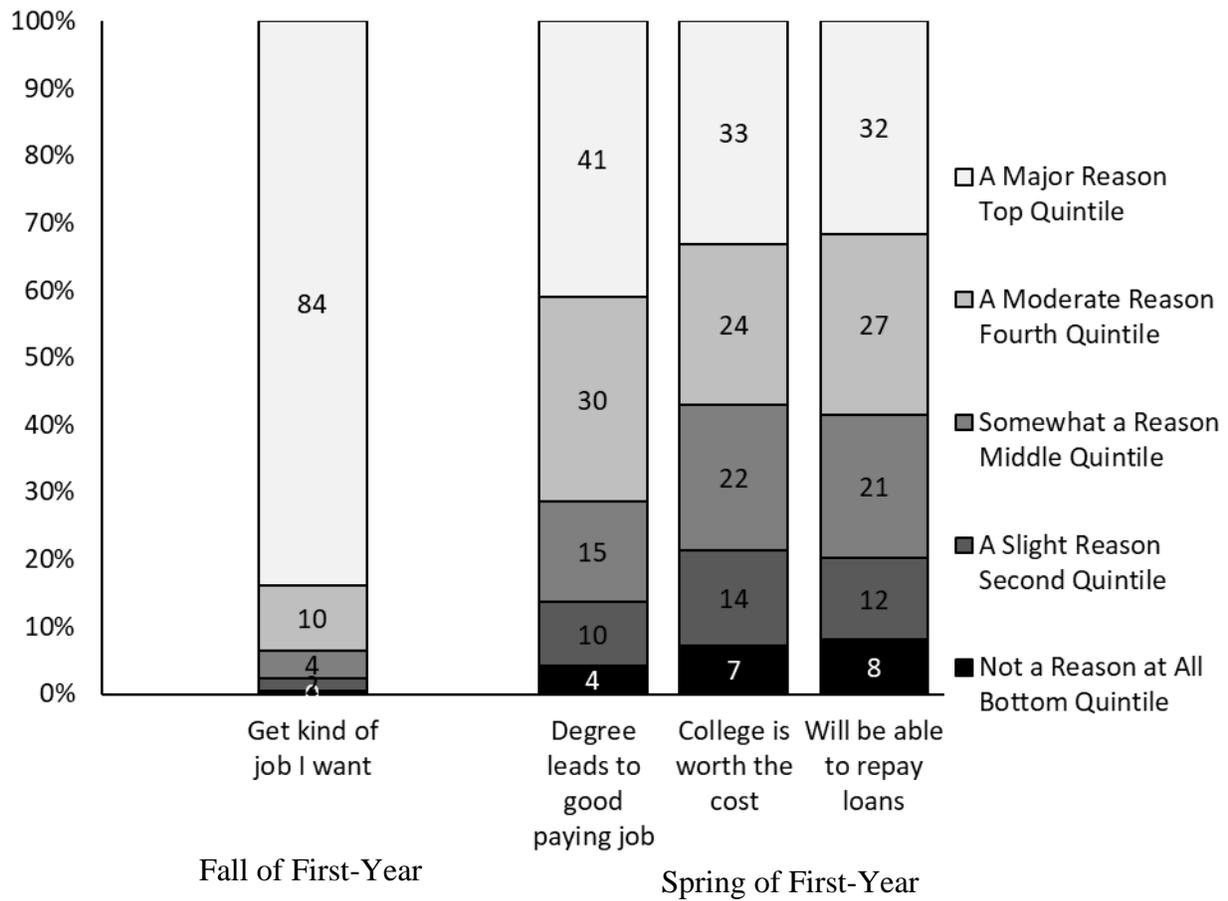


Figure 3. *Reasons for Attending College Fall and Uncertainty in Spring*

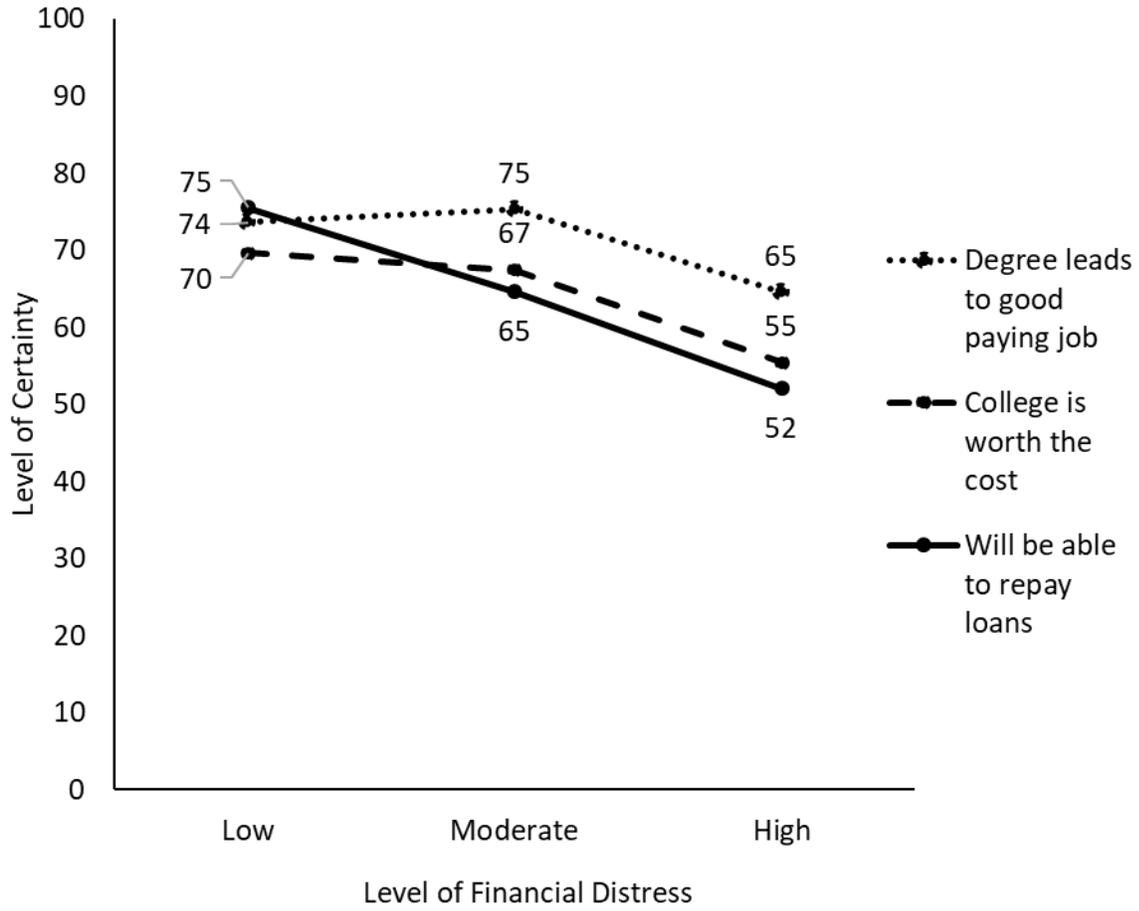


Figure 4. *The Relationship between Financial Distress and Certainty by Level of Distress.*

Paper 3: The Good Report

Abstract:

The current study examines the moderating role of social support or institutional type on financial distress—a factor in reducing college persistence. Through an examination of 533 Black and Latinx first year college students, we see trends of difference in social support and institutional type on financial distress as it pertains to certainty about the college degree.

Although not statistically significant, graphs illustrate a consistent pattern. For low and moderate levels of financial distress social support was the most effective in maintaining and increasing certainty about the worth of the college degree—yet high financial distress was not affected by social support. In regards to institutional type, or whether they attend a private university or public university, those who attended private universities were more likely to maintain certainty in the value of the college degree in the face of distress, especially high financial distress. Future work should examine this across a wider selection of private schools and variation in financial distress. Doing so would better illuminate the processes of college persistence.

Introduction

A college degree confers many benefits to individuals and society (Abel & Deitz, 2014). Yet there are still racial disparities in acquiring the college degree (Jeffery, 2020). Slightly less than half of Black and Latinx college students earn their degree in six years compared to the 70% of their white counter parts (Nichols & Anthony, 2020). Researchers have found that motivation for a college degree is important in college persistence (Allen, 1999). The desire for a degree is necessary in order to persist (Tinto, 2017). However, an important factor in college persistence is social support (Fruht, 2015). Social support serves to buffer adolescents and emerging adults from stressful life events (Li, Han, Wang, Sun & Cheng, 2018). This is especially important as students of color navigate primarily white universities (e.g., Gloria, Kurpius, Hamilton & Wilson, 1999). While social support has been found to matter for persistence, another important factor for college persistence is institutional type, or whether a university is private or public (Melguizo & Chung, 2012). Private universities typically have higher completion rates overall and for black and Latinx college students—due in part to a difference in resources (Oseguera, 2005). Finances and worries around finances has been noted to have an effect on college persistence (Cabrera, Nora, & Castaneda, 1992). Thus it is important for us to consider the ways in which social support might increase persistence through reducing the stressful impact of financial distress on persistence; additionally, whether a student attends a private or public university affects college persistence. We add to the current literature on college persistence of black and Latinx college students by considering the ways in which social support and institutional type affect motivation and ultimately persistence via reducing financial distress.

Social Support and College Persistence

Social support is a common requirement for health development (Maslow, 1970). Specifically, social support is necessary for a number of positive life outcomes such as reducing externalizing and internalizing behaviors, reducing the likelihood of substance use, increasing the likelihood of helping others and increasing educational outcomes (Heerde & Hemphill, 2018). And it is necessary to reduce some of the negative effects of stress and loneliness amongst emerging adults (Lee & Goldstein, 2016). Social support itself is helpful during important challenges and transitions in life for students of color. For example, Johnson-Esparza, Rodriguez Espinosa, Verney, Boursaw, and Smooth (2021) found that social support reduced depressive symptoms and reduced the strength of perceived stress on anxiety endorsement for Latinx emerging adults. However, sources of social support (e.g., from a friend vs from a family member) for emerging adults of color matter for experiencing certain life challenges (Lee, Goldstein, Dik & Rodas, 2020).

Social support has been found to matter for college persistence (Skahill, 2002). Such social support may manifest as informal mentoring that reduces the mental health challenges associated the freshman year transition (Le, Hsu & Raposa, 2021). Social support is especially important for the persistence of black and Latinx college students who go to primarily white institutions (Gloria, Kurpius, Hamilton & Wilson, 1999). This is the case because black and Latinx college students are likely to deal with racial microaggressions and manage the freshman year transition (Hurtado & Carter, 1996; Keels, Durkee, & Hope, 2017). Social support helps underprepared college students and first generation college students of color through making them feel as if they belong and providing them with information that guides them in decision making around college (Cholewa & Ramaswami, 2015; Puente, 2017; Gloria & Robinson

Kurpius, 2001). This includes buffering against some of the college adjustment issues black and Latinx college students experience at the transition such as anxiety and depression (Johnson-Esparza, Rodriguez Espinosa, Verney, Boursaw & Smith, 2021). Social support seems to protect from stress through increasing self-esteem during challenging times (Lee, 2020). Studies show that financial distress has a negative effect on subjective wellbeing (Cherney, Rothwell, Serido, & Shim, 2020). Social support has been shown to reduce the negative effect of financial distress (Tran, Lam & Legg, 2018). We add to literature on college persistence by considering the way social support could moderate the relationship between financial distress and motivation to persist in college for black and Latinx college students.

The role of private and public universities in college persistence

College persistence varies by whether a student attends a private university versus attending a public university (Melguizo, 2008; Astin & Oseguera, 2005a). For students who attend public universities instead of a private not-for-profit university take more time to completion—on average closer to 6 years (Melguizo & Chung, 2012; Adelman, 2006). Part of this difference is in the amount of funding that public universities receive versus private universities as private universities tend to be more dependent on donation and endowments (Landry & Neubauer, 2016). These sources of revenue matter as public universities are more likely to push cost of decreasing public aid onto students and families (Goldrick-Rab, 2016). Low SES students are more likely to attend universities with a high dependence on tuition for a source of all its revenue and low financial resources (Titus, 2006). This has negative outcomes for low-income college students that attend universities with a large portion of its revenue derived from tuition (Wright-Kim, Perna & Ruiz, 2019). However, private not-for-profit universities are more likely to be able to adjust to the needs of students of color and are more

likely to spend more on student services and student life (Chen, 2012; Melguizo & Chung, 2012). These institutional characteristics have been noted to have an effect on completion rates for black and Latinx college students (Oseguera, 2005). But these findings are mixed in the literature with institutional type not mattering for students of color (Arellano, 2020). We add to literature by considering whether institutional type matter for college persistence for black and Latinx college students—and whether this matters for financial distress.

Current study

College completion is important for the individual and society (Abel & Deitz, 2014). The current investigation extends literature on college persistence by examining social support and institutional type as moderators for the relationship between financial distress and motivation. Specifically, we considered whether social support would reduce the effect of financial distress on motivation; and whether institutional type varied the relationship between financial distress and motivation. We predicted that social support and institutional type would moderate the relationship between financial distress and motivation for black and Latinx college students.

Methods

Procedures

Data come from the Minority College Cohort Study, a longitudinal investigation of 533 Black (N = 221) and Latinx (N = 312) freshmen who began college in fall 2013. Students were recruited from five historically White universities in the Midwest: 24% recruited from two urban private institutions, 35% recruited from an urban public institution, 28% recruited from a rural public institution, and 13% recruited from a suburban public institution. Administrators at each university distributed an email, to all eligible freshmen, containing a description of the research study and a link to the online survey during September of the 2013. To qualify for the study

students had to be enrolled as a first-time, first-year college students and identify as African American/Black or Hispanic/Latinx. Across the five institutions, we recruited approximately 11% to 35% of all eligible freshmen.

Survey data used for this analysis took place during students' first-year of college: early fall term (Wave 1) and shortly after the end of spring term (Wave 3). Retention for each subsequent wave of data collection was above 90%. The [blinded] Institutional Review Board approved study: [blinded] IRB protocol # H10185.

Participants

Participants graduated from 255 different high schools, including 203 public high schools (86% of the sample). Forty-nine percent of Black students and 70% of Latinx students were first-generation college students. Approximately 74% of Black and 58% of Latinx students were female; this is representative of the gender imbalance in college enrollment. The mean age of students at recruitment was 18.2 years old ($SD = 0.58$). Only 8% were foreign-born (6% of Black and 10% of Latinx); however, 57% had at least one foreign-born parent (25% of Black and 81% of Latinx).

Wave 1 and Wave 3 Predicting Students' Level of Uncertainty

Measures

Students used a 0 to 100 slider scale to respond to the following items. The instructions stated, "On a scale of 0 to 100, how sure are you of the following things?" The 3 questions were: (1) "How sure are you that college is worth the cost?" (2) "How sure are you that getting a college degree will get you a good paying job?" and (3) "How sure are you that you will be able to repay your student loans?" The scale was anchored with "totally not sure" at one end and "totally sure" at the other end. The point number was displayed as they moved the slider and

selected their response. For descriptive analyses, level of certainty was divided into 5 categories based on their slider position on the 100 point scale: 1 = 0-20, 2 = 21-40, 3 = 41-60, 4 = 61-80, 5 = 81-100.

Financial distress in college. On the Wave 1 survey, 3 items were used to measure students' level of financial distress: "how much difficulty, if any, are you having paying your bills"; "how upset or worried are you because you do not have enough money to pay for things"; and "how concerned do your current financial conditions make you about the chances you can afford to complete your college degree". Students responded using a 5-point scale that ranged from "no difficulty at all/not upset or worried at all/not at all concerned" to "tremendous amount of difficulty/extremely upset or worried/extremely concerned." Items were combined into a scale that demonstrated good internal reliability (Black students $\alpha = .78$; Latinx students $\alpha = .80$). Financial distress was divided into terciles to check for nonlinear relationships.

Family educational attainment. Regarding educational attainment, on the Wave 1 survey, students reported their mother/female guardian and father/male guardian's highest level of schooling, and whether any siblings are currently in or graduated from college. Responses to these questions created 4 mutually exclusive categories indicating the highest level of schooling in the family: two parents college-educated, one parent college-educated, neither parent college-educated but sibling in/graduated from college, or neither parent nor sibling college-educated.

Parent nativity. Regarding parent nativity, student' report of whether their mother/female guardian and father/male guardian were born in the U.S. was used to create 3 mutually exclusive categories: both parents foreign born, one parent foreign born, or both parents U.S. born.

Gender. Students reported their gender as male, female, or transgender. Two students who identified as transgender were excluded from analyses.

High school GPA. Cumulative GPA was self-reported on a scale from 0 to 4.0.

Social support. On the Wave 1 survey, 8 items were used to measure students' level of social support: "My family really tries to help me"; "I get the emotional help and support I need from my family"; "I can talk about my problems with my family"; "I have friends with whom I can share my joys and sorrows"; "My friends really try to help me"; "I can count on my friends when things go wrong"; "My family is willing to help me make decisions"; "I can talk about my problems with my friends." Students responded using 7-point Likert scale that ranged from "strongly disagree" to "strongly agree."

Institutional type. Whether a student attended a private or public university indicated in Wave 1 indicated by 0 = Private and 1 = Public.

Data Analysis Plan

Data analysis of the analytic sample (N = 533) was conducted using SPSS 25, IBM Corporation. There was no missingness in the study variables. we conducted descriptive analyses to investigate bivariate relations among social support, financial distress, private and public universities, and certainty/belief in the college degree. We then conducted hierarchical regression analyses predicting each question of certainty, controlling for family educational attainment, SES, gender, HS GPA, and parent nativity. All continuous covariates and independent variables were centered about the mean. In Step 1, we regressed the control variables onto each measure of certainty. In Step 2, we added experiences of financial distress in wave one. In Step 3, we added social support in wave one. In Step 4, we tested whether moderate distress and high distress interacted with social support at wave one. In Step 5, we entered private or public university. In Step 6 we entered moderate financial distress by whether one went to private or public

university. In Step, 7 we added high financial distress by whether one went to private school or not.

Results

Preliminary Analyses

Preliminary analyses were conducted to assess means, standard deviations, and bivariate relations for all study variables (see Tables 1-3, 7-9, 13-15). Black and Latinx students were pooled and examined together because there were no significant racial-ethnic differences on any of the three uncertainty measures or on the measure of financial distress. (Also refer to figures 5-7 for boxplots of social support and financial distress.) Additionally, the interaction between race-ethnicity and financial distress was insignificant in all regression analyses.

Certainty in college (3 items)

For certainty in being able to get a good paying job, we entered the control variables and financial distress in wave one. And they contributed significantly to the model, $F(6, 443) = 2.12$ $p=.05$; the inclusion of financial distress at wave one ($\beta = -0.15$ $p = .006$) and it accounted for 3.5% of the variation in students' responses. No other control variables were significant (Table 4).

For certainty that college is worth the cost, we entered the control variables and financial distress in wave one, which contributed significantly to the model $F(6, 547) = 4.9$ $p=.000$. The inclusion of financial distress in wave one was significant ($\beta = -0.22$ $p=.000$), family educational attainment ($\beta = .124$ $p=.02$) and HS GPA ($\beta = .125$ $p=.018$) and they accounted for 7.7% of the variation in students' responses (refer to Table 5).

For how sure are you that you will be able to repay your student loans, we entered the control variables and financial distress in wave one, which contributed significantly to the model

$F(6, 454) = 11 p=.000$; the inclusion of financial distress at wave one ($\beta = -0.33 p=.000$) and being a female ($\beta = -0.5 p=.001$) accounted for 15.8% of variation in students' responses (refer to Table 6).

In sum, financial distress at wave one was highly predictive certainty across all three items.

Certainty items by social support

For certainty that the college degree would lead to a good paying job, we entered all the control variables including financial distress. At this step, we also added social support at wave one and interactions between moderate distress and support and between high financial distress and social support because the box plots showed differences based on distress and social support by certainty that the college degree would lead to a good paying job (refer to Figure 11). The model was significant, $F(9, 429) = 2.5 p=.007$, with it explaining 6.2% of variation in the students. However there were no significant variables, including financial distress ($\beta = -.99 p=.605$). It is interesting to note that with the introduction of social support and the interaction terms of social support by moderate distress and social support by high financial distress, financial distress at wave one was no longer significant. This might indicate high correlation amongst predictor variables (refer to Table 10).

For certainty that the college degree was worth the cost, we entered all variables including financial distress. At this step, we also added social support at wave one and interactions between moderate distress and support and between high financial distress and social support because the box plots showed differences based on distress and social support by certainty that the college degree was worth the cost (refer to Figure 12). While the model was significant, $F(9, 534) = 4.3 p = .000$ with the model explaining 10% of the variation in students' responses. However, there were two significant variables, family educational attainment ($\beta =$

.124 $p=.02$) and HS GPA ($\beta = .114$ $p=.03$), but financial distress at wave one was not significant ($\beta = -.99$ $p=.605$) (refer to Table 11).

For the item measuring surety about being able to repay student loans, we entered all variables including financial distress. At this step, we also added social support at wave one and interactions between moderate distress and support and between high financial distress and social support because the box plots showed differences based on distress and social support by surety of repaying loans in the future (refer to Figure 13). The model was significant $F(9, 452) = 7.1$ $p = .000$ with the model explaining 16% of the variation in students' responses; the inclusion of being a woman contributed significantly to the model ($\beta = -.177$ $p=.001$), but financial distress was no longer significant ($\beta = -.319$ $p=.08$). The reduction in significance of financial distress occurred with the introduction of social support and social support by high and moderate distress (refer to Table 12).

In sum, when considering differences in social support by moderate distress and high distress, we find all the models to be significant. However, when examining the variables in the model, there was a decrease in the effect of financial distress at wave one in the model. This could be due to the high correlation between financial distress at wave one and high financial distress and social support by high financial distress. In regard to certainty that college was worth the cost, family educational attainment and HS GPA were significant. Finally, in regard to being able to repay student loans in the future being a woman was significant in the model.

Certainty items by private or public university

For certainty that the college degree would lead to a good paying job, we entered all the control variables including financial distress. At this step, we also added private and public university and interactions between moderate distress and private-public and between high

financial distress and private-public university because the box plots showed differences based on distress and private-public university by certainty that the college degree would lead to a good paying job (refer to Figure 14). The model was significant, $F(9, 431) = 2.5$ $p=.010$, with it explaining 6.0% of variation in the students. However, there were no significant variables, including financial distress ($\beta = .173$ $p=.441$). It is interesting to note that with the introduction of private-public university and the interaction terms of private-university by moderate distress and private-public university by high financial distress, financial distress at wave one was no longer significant. This might indicate high correlation amongst predictor variables (refer to Table 16) financial distress at wave one was highly correlated with high financial distress by private-public university (.8).

For certainty that the college degree was worth the cost, we entered all the control variables including financial distress. At this step, we also added private and public university and interactions between moderate distress and private-public and between high financial distress and private-public university because the box plots showed differences based on distress and private-public university by certainty that the college degree would lead to a good paying job (refer to Figure 15). The model was significant, $F(9, 542) = 3.7$ $p=.000$, with it explaining 8.6% of variation in the students. There were two significant variables, family educational attainment ($\beta = .116$ $p=.034$) and HS GPA ($\beta = .120$ $p=.03$), but financial distress at wave one was not significant ($\beta = -.266$ $p=.233$). It is interesting to note that with the introduction of private-public university and the interaction terms of private-university by moderate distress and private-public university by high financial distress, financial distress at wave one was no longer significant. This might indicate high correlation amongst predictor variables (refer to Table 17) financial

distress at wave one was highly correlated with high financial distress by private-public university (.8).

For the item measuring surety about being able to repay student loans, we entered all variables including financial distress. At this step, we also added private and public university and interactions between moderate distress and private-public and between high financial distress and private-public university because the box plots showed differences based on distress and private-public university by surety in being able to repay loans (refer to Figure 16). The model was very significant $F(9, 450) = 7.6$ $p = .000$ with the model explaining 17% of the variation in students' responses; the inclusion of being a woman contributed significantly to the model ($\beta = -.175$ $p = .001$), but financial distress was no longer significant ($\beta = .319$ $p = .978$). It is interesting to note that with the introduction of private-public university and the interaction terms of private-university by moderate distress and private-public university by high financial distress, financial distress at wave one was no longer significant. This might indicate high correlation amongst predictor variables (refer to Table 18) financial distress at wave one was highly correlated with high financial distress by private-public university (.8).

In sum, when considering financial distress by private and public university and by moderate and high financial distress. However, when examining the variables in the model, there was a decrease in the effect of financial distress at wave one in the model. This could be due to the high correlation between financial distress at wave one and high financial distress and social support by high financial distress. In regard to certainty that college was worth the cost, family educational attainment and HS GPA were significant. Finally, in regard to being able to repay student loans in the future being a woman was significant in the model.

Discussion

The aim of the current study was to examine how the relationship between financial distress and decreased motivation to persist was influenced by social support and institutional type for black and Latinx college students. We found that financial distress was strongly related to a decrease in motivation to persist. For the ability to repay loans, SES and being a woman was related to a decrease of surety. For the certainty of college being worth the cost we found that financial distress was negatively related to motivation to persist. While the boxplots for certainty across the 3 items and financial distress by social support demonstrated a downward trend, the regression models did not find any social support interaction by financial distress significant.

Studies show that SES and GPA as predictors of college persistence (Titus, 2006). Students with higher SES are more likely better able to use college to make efforts worth the cost (Tinto, 1993; Jeffery, 2020). Studies show that some pre-college characteristics such as HS GPA matter for persistence (Arellano, 2020). These students may be more likely to navigate college environments, make connections, and be successful during the transition and later into college (Wagner, 2015).

Even with the lack of significance it is informative to examine the boxplots as they hint at trends in data. Looking at social support across certainty items (Figures 11-13) we can see that social support seems to have less of an effect on certainty as distress increases from low to high distress. This seems to reflect that social support is more effective when financial distress is low or moderate, which reflects that social support does serve as a buffer to some degree (Lee, Goldstein, Dik & Rodas, 2020; Johnson-Esparza, Rodriguez Espinosa, Verney, Boursaw & Smooth, 2021). High financial distress might reflect elements not solvable by social support alone such as lack of money for books or food (Broton & Goldrick-Rab, 2018). Still these

findings are tentatively consistent with literature on the role of social support on college persistence (Lee, 2020; Heerde & Hemphill, 2018). Social support itself is helpful during important challenges and transitions in life for students of color and our measure of social support includes various sources of support (e.g., Lee, Goldstein, Dik & Rodas, 2020). Social support has been noted to help underprepared college students and first generation college students of color through making them feel as if they belong and providing them with information that guides them in decision making around college (Cholewa & Ramaswami, 2015; Puente, 2017; Gloria & Robinson Kurpius, 2001). We find that social support seems to matter for motivation to persist (Skahill, 2002).

Even with the lack of significance it is informative to examine the boxplots as they hint at trends in data. Looking at institutional type across certainty items (Figures 14-16) we can see that as financial distress increases from low to high, students who attend public universities demonstrate a steady decline in certainty with the sharpest decline noted in the ability for the degree to get a good paying job (Figure 10). Students who attend private school seem to be less affected by distress, which could reflect differences in resources allocated for student/career services (Chen, 2012; Wright-Kim, Perna & Ruiz, 2019). But this is not good for those who attend public universities as they provide less resources and expect more tuition (Landry & Neubauer, 2016). This could also in part shine a light on the completion rate difference between private and public universities as students in public universities might be more likely to think college is not worth it (Oseguera, 2005).

Limitations

This study had a few limitations. The first limitation is that of sample size. One of the reasons we were not able to observe an effect could be due to the strong correlation between high

financial distress by social support and institutional type by financial distress at wave one. A second reason could be due to the limited sample size for institutional type. Future studies should examine more students across multiple institutional types in order to assess the pattern as the boxplots indicated an explorable relationship. The third reason could be a limited sample size across the multiple indicators. Future studies should attempt to balance the amount of students with financial distress as more students were liable to be in the high distress category. This is a reflection of university financial policies but in order to understand the psychological mechanisms underpinning financial distress with institutional type and social support, experimental studies manipulating amount of financial burden might be instructive (see Destin and Svoboda, 2018).

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Appendix 4

Figure 5. *The Relationship between Financial Distress and Certainty in Repaying Loans*

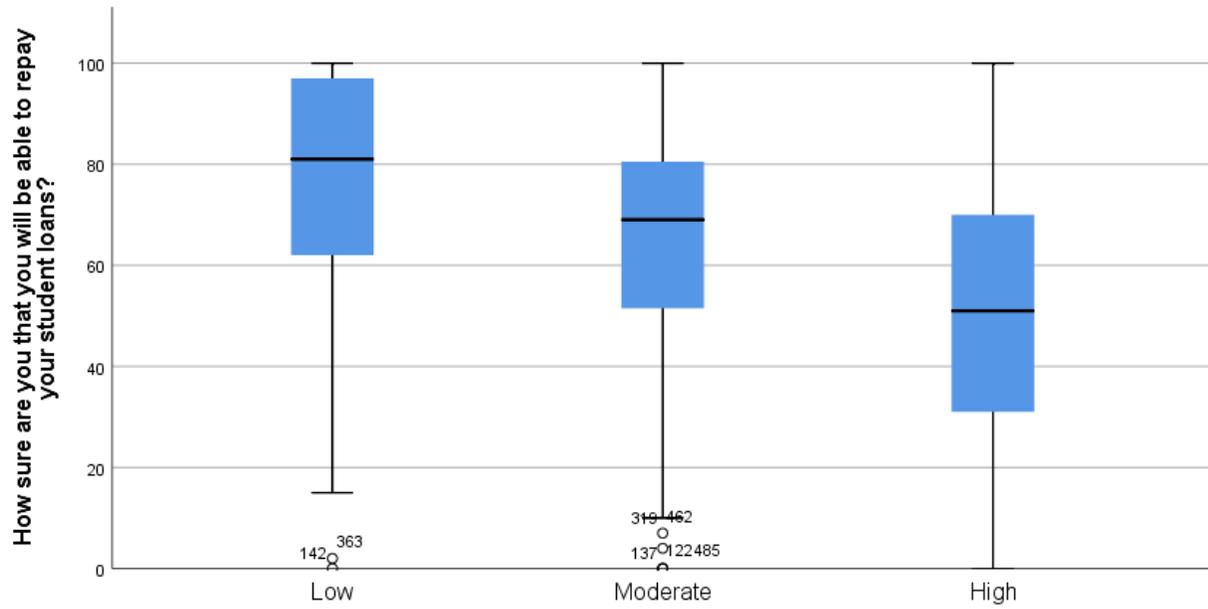


Figure 6. *The Relationship between Financial Distress and Certainty in Worth of College*

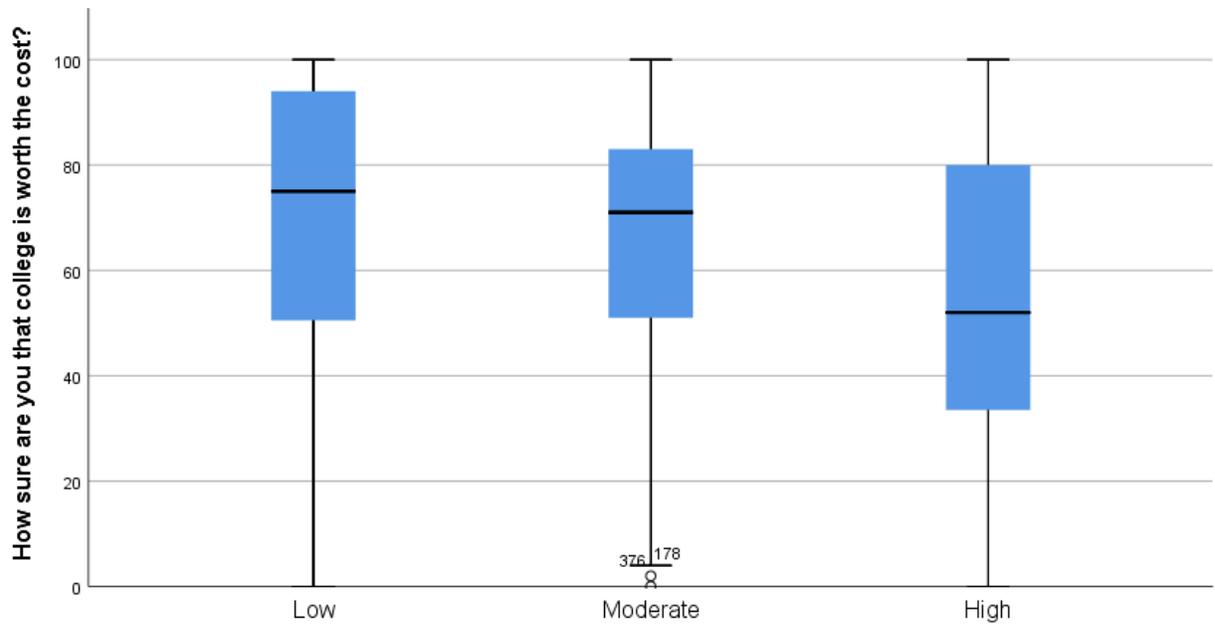


Figure 7. *The Relationship between Financial Distress and Certainty in Getting a Good Paying Job*

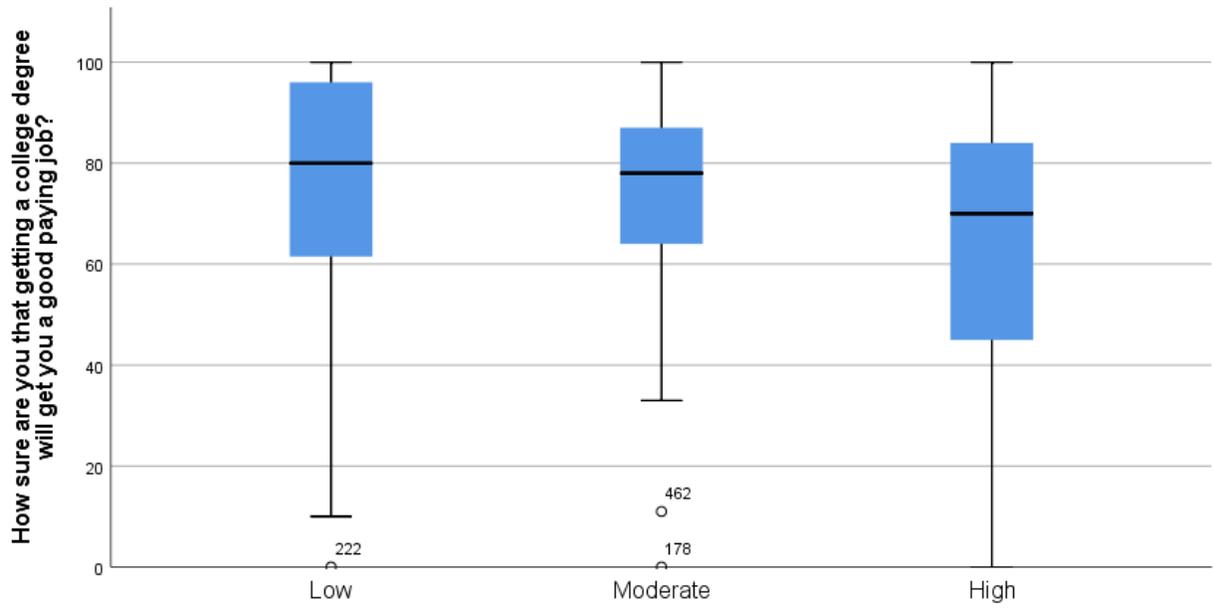


Figure 8. *The Relationship Between Certainty in Repaying Loans by Level of Social Support*

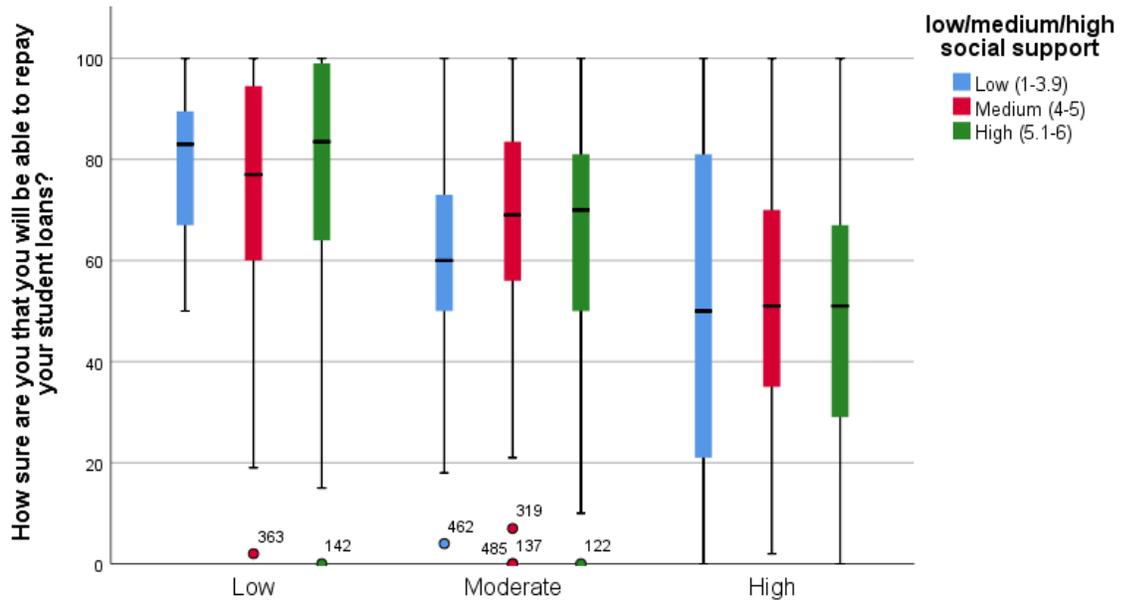


Figure 9. *The Relationship Between Certainty in Getting a Good Paying Job by Level of Social Support*

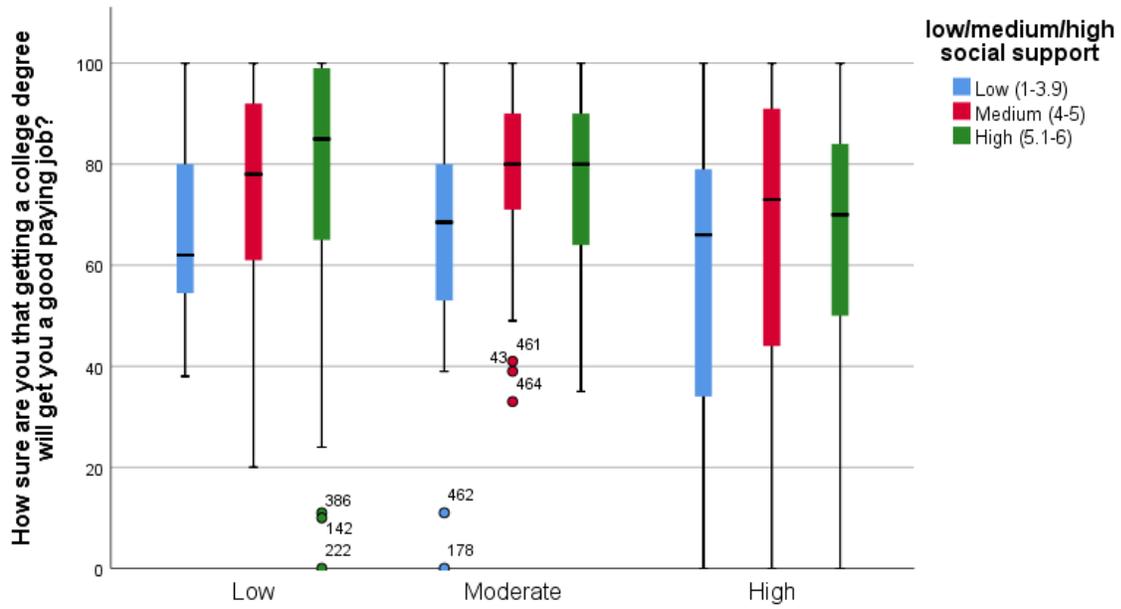


Figure 10. *The Relationship Between Certainty in College Worth the Cost by Level of Social Support*

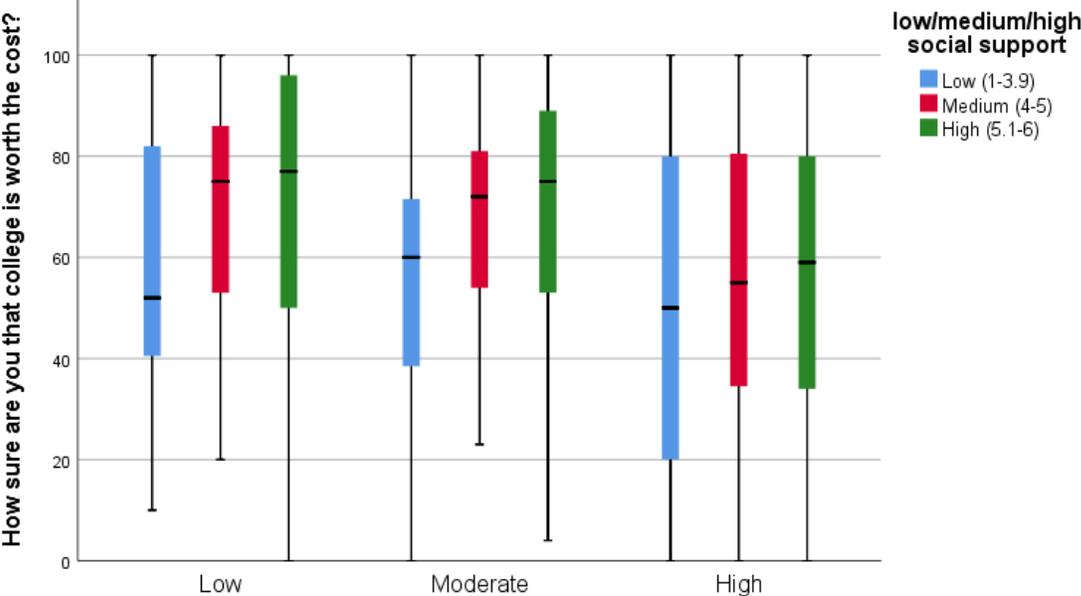


Figure 11. *The Relationship Between Certainty in Getting a Good Paying Job by Private and Public University of Attendance*

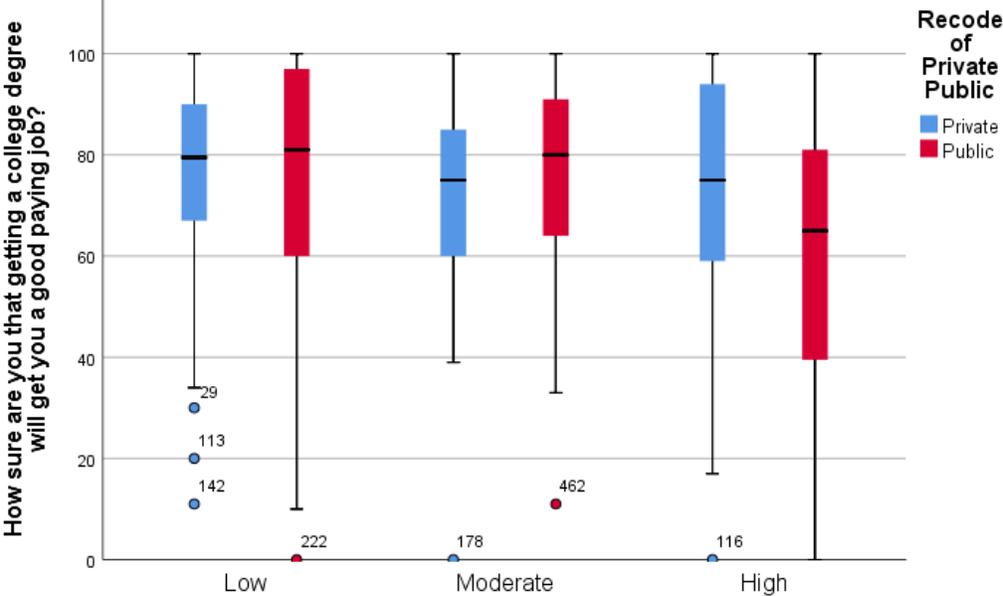


Figure 12. *The Relationship Between Certainty in College Worth Cost by Private and Public University of Attendance*

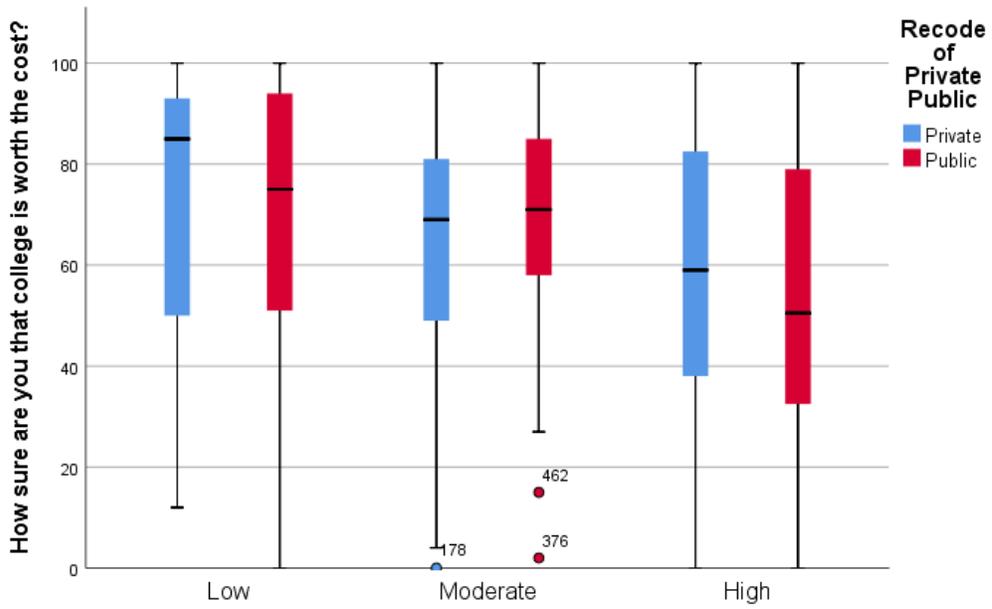


Figure 13. *The Relationship Between Certainty in Repaying Loans by Private and Public University of Attendance*

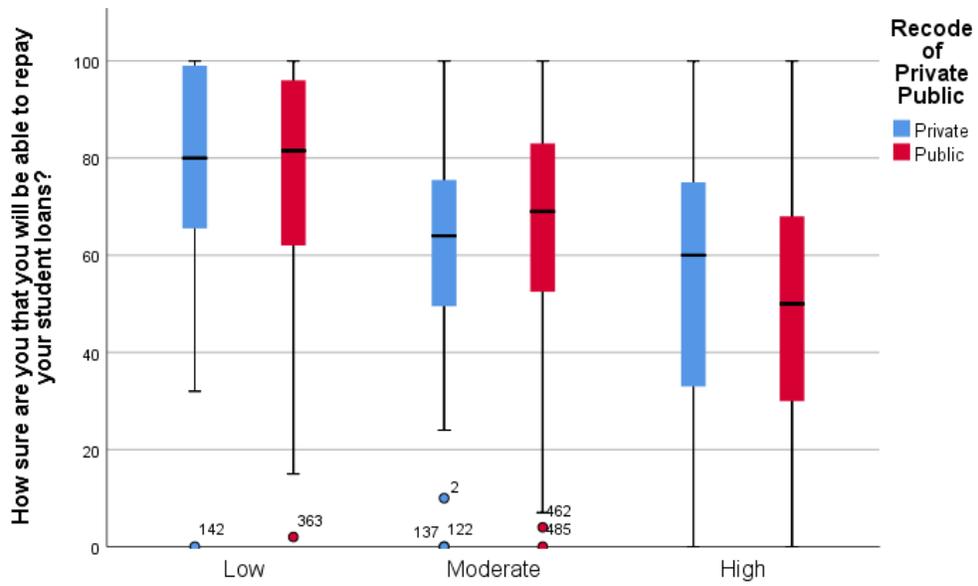


Table 6. *Descriptive Statistics of Certainty College is Worth the Cost and Financial Distress with Study Covariates*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. How sure are you that college is worth the cost?	360	3.6	1.3	—						
2. Family educational attainment	360	2.7	1.1	.090	—					
3. black	360	.39	.488	-.062	-.233	—				
4. female	360	.66	.473	-.037	.021	.166	—			
5. Parent nativity	360	1.74	.688	.070	.124	-.465	-.110	—		
6. HS GPA	360	3.55	.400	.129	-.032	-.063	.202	.098	—	
7. financial distress	360	1.93	.841	-.204	.170	-.057	.090	.062	-.046	—

Table 7. *Descriptive Statistics of Certainty in Getting a Good Paying Job and Financial Distress with Study Covariates*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. How Sure are you that getting a college degree will get you good paying job? ^a	359	3.9	1.13	—						
2. Family educational attainment	359	2.7	1.1	-.006	—					
3. black	359	.39	.488	-0.23	-.232	—				
4. female	359	.66	.473	-.098	.012	.171	—			
5. Parent nativity	359	1.74	.688	.033	.120	-.468	-.126	—		
6. HS GPA	359	3.55	.400	.042	-.036	-.056	.204	.097	—	
7. financial distress	359	1.92	.841	-.156	.165	-.051	.091	.053	-.049	—

Table 8. *Descriptive Statistics of Certainty in Repaying Loans and Financial Distress with Study Covariates*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. How sure are you will able to repay your student loans	353	3.6	1.2	—						
2. Family educational attainment	353	2.6	1.1	-.075	—					
3. black	353	.39	.489	-.021	-.220	—				
4. female	353	.66	.473	-.206	.023	.166	—			
5. Parent nativity	353	1.74	.691	.054	.121	-.472	-.130	—		
6. HS GPA	353	3.55	.402	.016	-.025	-.058	.193	.103	—	
7. financial distress	353	1.92	.841	-.351	.171	-.051	.092	.049	-.035	—

Table 9. Hierarchical Regression Analysis for Variables Predicting Certainty College is Worth the Cost

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.391	.667		3.584	.000	1.079	3.703					
	family educational attainment	.145	.062	.124	2.329	.020	.023	.267	.090	.123	.119	.916	1.092
	black	-.023	.157	-.009	-.149	.882	-.332	.285	-.062	-.008	-.008	.734	1.362
	female	-.104	.146	-.038	-.716	.474	-.390	.182	-.037	-.038	-.037	.909	1.101
	Whether parents are US born or not	.089	.109	.047	.814	.416	-.126	.303	.070	.043	.042	.774	1.292
	What was your high school GPA?	.402	.169	.125	2.371	.018	.068	.735	.129	.125	.121	.934	1.071
	Financial Distress	-.336	.080	-.219	-4.190	.000	-.493	-.178	-.204	-.218	-.214	.956	1.046

a. Dependent Variable: How sure are you that college is worth the cost?

Table 10. Hierarchical Regression Analysis for Variables Predicting Certainty College Will Lead to Good Paying Job

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.845	.603		6.379	.000	2.660	5.031					
	family educational attainment	.020	.056	.019	.351	.725	-.091	.130	-.006	.019	.018	.919	1.088
	black	.009	.142	.004	.067	.947	-.269	.288	-.023	.004	.003	.733	1.364
	female	-.221	.132	-.093	-1.681	.094	-.480	.038	-.098	-.089	-.088	.905	1.105
	Whether parents are US born or not	.040	.098	.024	.406	.685	-.153	.233	.033	.022	.021	.770	1.299
	What was your high school GPA?	.147	.153	.052	.961	.337	-.154	.449	.042	.051	.050	.933	1.072
	Financial Distress	-.201	.072	-.149	-2.784	.006	-.342	-.059	-.156	-.147	-.146	.958	1.044

a. Dependent Variable: How sure are you that getting a college degree will get you a good paying job?

Table 11. Hierarchical Regression Analysis for Variables Predicting Certainty Will be Able to Repay Loans

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.429	.614		7.211	.000	3.221	5.637					
	family educational attainment	-.019	.058	-.017	-.322	.748	-.132	.095	-.075	-.017	-.016	.922	1.085
	black	.037	.146	.015	.253	.800	-.250	.323	-.021	.014	.013	.736	1.358
	female	-.462	.135	-.177	-3.417	.001	-.728	-.196	-.206	-.181	-.169	.910	1.099
	Whether parents are US born or not	.094	.101	.053	.935	.351	-.104	.293	.054	.050	.046	.765	1.306
	What was your high school GPA?	.104	.157	.034	.660	.510	-.205	.412	.016	.035	.033	.939	1.065
	Financial Distress	-.490	.074	-.333	-6.604	.000	-.636	-.344	-.351	-.335	-.326	.958	1.044

a. Dependent Variable: How sure are you that you will be able to repay your student loans?

Table 12. *Descriptive Statistics of Certainty in College Worth the Cost and Financial Distress with Study Covariates Including Social Support*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that college is worth the cost?	360	3.6	1.3	—									
2. Family educational attainment	360	2.7	1.1	.090	—								
3. black	360	.39	.488	-.062	-.233	—							
4. female	360	.66	.473	-.037	.021	.166	—						
5. Parent nativity	360	1.74	.688	.070	.124	-.465	-.110	—					
6. HS GPA	360	3.55	.400	.129	-.032	-.063	.202	.098	—				
7. financial distress	360	1.93	.841	-.204	.170	-.057	.090	.062	-.046	—			
8. Social Support	360	2.36	.707	.148	-.076	-.064	.134	.052	.111	-.12	—		
9. Moderate Fin. Distress by Support	360	.66	1.11	.116	.108	-.046	-.077	.042	.029	.05	.15	—	
10. High Fin. Distress by Support	360	.722	1.13	-.185	.082	-.054	.171	.036	-.011	.817	.126	-.38	—

Table 13. *Descriptive Statistics of Certainty in College Leading to Good Paying Job and Financial Distress with Study Covariates Including Social Support*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that getting a college degree will get you a good paying job?	358	4	1.13	—									
2. Family educational attainment	358	2.65	1.1	-.007	—								
3. black	358	.39	.489	-.021	-.231	—							
4. female	358	.66	.473	-.094	.013	.169	—						
5. Parent nativity	358	1.73	.686	.029	.119	-.467	-.120	—					
6. HS GPA	358	3.55	.401	-.043	-.036	-.057	.203	.099	—				
7. financial distress	358	1.93	.840	-.153	.166	.132	.087	.062	-.046	—			
8. Social Support	358	2.36	.700	.132	-.076	-.072	.132	.050	.121	-.12	—		
9. Moderate Fin. Distress by Support	358	.66	1.12	.137	.106	-.043	-.079	.042	.027	.05	.15	—	
10. High Fin. Distress by Support	358	.722	1.14	-.163	.078	-.054	.168	.032	-.011	.818	.125	-.38	—

Table 14. *Descriptive Statistics of Certainty in Repaying Loans and Financial Distress with Study Covariates Including Social Support*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that you will be able to repay your student loans?	352	3.7	1.2	—									
2. Family educational attainment	352	2.66	1.1	-.076	—								
3. black	352	.39	.489	-.018	-.219	—							
4. female	352	.66	.473	-.202	.024	.163	—						
5. Parent nativity	352	1.74	.689	.049	.120	-.470	-.124	—					
6. HS GPA	352	3.55	.402	.017	-.025	-.059	.193	.105	—				
7. financial distress	352	1.93	.841	-.349	.172	-.054	.088	.055	-.036	—			
8. Social Support	352	2.37	.699	.056	-.087	-.063	.131	.042	.120	-.12	—		
9. Moderate Fin. Distress by Support	352	.671	1.12	.037	.117	-.055	-.085	.027	.027	.05	.15	—	
10. High Fin. Distress by Support	352	.724	1.13	-.312	.074	-.046	.172	.027	.00	.818	.120	-.38	—

Table 15. Hierarchical Regression Analysis for Variables Predicting Certainty College is Worth Cost with Social Support

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.121	.896		2.367	.018	.358	3.884					
	family educational attainment	.144	.062	.124	2.318	.021	.022	.267	.090	.123	.118	.898	1.114
	black	.005	.157	.002	.034	.973	-.303	.313	-.062	.002	.002	.726	1.377
	female	-.130	.147	-.048	-.885	.377	-.420	.159	-.037	-.047	-.045	.873	1.145
	Whether parents are US born or not	.081	.108	.043	.746	.456	-.132	.294	.070	.040	.038	.768	1.301
	What was your high school GPA?	.364	.169	.114	2.157	.032	.032	.695	.129	.115	.109	.928	1.078
	Financial Distress low/medium/high social support	-.394	.288	-.257	-1.369	.172	-.960	.172	-.204	-.073	-.069	.073	13.707
	financial_distress_moderate_by_social_support	.171	.149	.094	1.148	.252	-.122	.465	.148	.061	.058	.386	2.588
	financial_distress_high_by_social_support	.132	.127	.114	1.041	.298	-.117	.381	.116	.056	.053	.213	4.698
	financial_distress_high_by_social_support	.062	.233	.055	.267	.789	-.395	.520	-.185	.014	.014	.061	16.371

a. Dependent Variable: How sure are you that college is worth the cost?

Table 16. Hierarchical Regression Analysis for Variables Predicting Certainty Will Get Good Paying Job with Social Support

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.381	.806		4.194	.000	1.796	4.966					
	family educational attainment	.016	.056	.016	.287	.774	-.094	.127	-.007	.015	.015	.901	1.110
	black	.031	.141	.013	.219	.827	-.247	.309	-.021	.012	.011	.725	1.379
	female	-.228	.133	-.095	-1.712	.088	-.490	.034	-.094	-.091	-.089	.874	1.144
	Whether parents are US born or not	.025	.098	.015	.258	.796	-.167	.218	.029	.014	.013	.766	1.306
	What was your high school GPA?	.111	.152	.039	.730	.466	-.188	.411	.043	.039	.038	.926	1.080
	Financial Distress	-.134	.259	-.099	-.518	.605	-.643	.375	-.153	-.028	-.027	.073	13.674
	low/medium/high social support	.195	.135	.120	1.444	.150	-.071	.461	.132	.077	.075	.388	2.581
	financial_distress_moderate_by_social_support	.098	.114	.096	.857	.392	-.127	.322	.137	.046	.044	.212	4.706
	financial_distress_high_by_social_support	-.045	.209	-.045	-.214	.831	-.456	.367	-.163	-.011	-.011	.061	16.361

a. Dependent Variable: How sure are you that getting a college degree will get you a good paying job?

Table 17. Hierarchical Regression Analysis for Variables Predicting Certainty Will be Able to Repay Loans with Social Support

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	4.295	.835		5.143	.000	2.652	5.937					
	family educational attainment	-.021	.059	-.018	-.351	.726	-.136	.095	-.076	-.019	-.017	.899	1.112
	black	.043	.147	.017	.292	.770	-.246	.332	-.018	.016	.014	.730	1.371
	female	-.460	.139	-.176	-3.316	.001	-.733	-.187	-.202	-.176	-.165	.877	1.140
	Whether parents are US born or not	.089	.102	.049	.868	.386	-.112	.290	.049	.047	.043	.762	1.312
	What was your high school GPA?	.093	.158	.030	.588	.557	-.218	.404	.017	.032	.029	.931	1.074
	Financial Distress low/medium/high social support	-.469	.269	-.319	-1.743	.082	-.998	.060	-.349	-.094	-.087	.074	13.557
	financial_distress_moderate_by_social_support	.032	.119	.029	.272	.786	-.201	.265	.037	.015	.014	.212	4.713
	financial_distress_high_by_social_support	-.014	.218	-.013	-.064	.949	-.442	.414	-.312	-.003	-.003	.062	16.194

a. Dependent Variable: How sure are you that you will be able to repay your student loans?

Table 18. *Descriptive Statistics of Certainty College Worth Cost and Financial Distress with Study Covariates Including Institutional Type*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that college is worth the cost?	359	3.6	1.28	—									
2. Family educational attainment	359	2.65	1.1	.090	—								
3. black	359	.39	.489	-.062	-.233	—							
4. female	359	.66	.474	-.037	.021	.166	—						
5. Parent nativity	359	1.74	.686	.070	.124	-.465	-.110	—					
6. HS GPA	359	3.55	.402	.129	-.032	-.063	.202	.098	—				
7. financial distress	359	1.92	.839	-.204	.170	-	.090	.062	-.046	—			
						.057							
8. Private	359	1.76	.424	-.010	.097	-.120	-.062	-.035	-.076	-.09	—		
9. Moderate Fin. Distress by Private	359	.51	.834	.094	.164	-.024	-.129	.028	.005	.06	.14	—	
10. High Fin. Distress by Private	359	.54	.840	-.228	.087	-.005	.108	.038	-.080	.832	.108	-.40	—

Table 19. *Descriptive Statistics of Certainty College Will Lead to a Good Paying Job and Financial Distress with Study Covariates Including Institutional Type*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that getting a college degree will get you a good paying job?	359	4	1.13	—									
2. Family educational attainment	359	2.65	1.1	-.006	—								
3. black	359	.39	.488	-.023	-.232	—							
4. female	359	.66	.473	-.098	.012	.171	—						
5. Parent nativity	359	1.74	.688	.033	.120	-.468	-.126	—					
6. HS GPA	359	3.55	.401	-.042	-.036	-.056	.204	.097	—				
7. financial distress	359	1.92	.841	-.156	.165	-	.091	.053	-.049	—			
						.051							
8. Private	359	1.76	.426	-.031	.099	-.123	-.051	-.041	-.074	-.08	—		
9. Moderate Fin. Distress by Private	359	.51	.831	.125	.165	-.016	-.123	.029	-.002	.06	.15	—	
10. High Fin. Distress by Private	359	.54	.841	-.221	.083	-.003	.106	.031	-.080	.833	.112	-.40	—

Table 20. *Descriptive Statistics of Certainty in Repaying Loans and Financial Distress with Study Covariates Including Institutional Type*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1. How sure are you that you will be able to repay your student loans?	352	3.7	1.2	—									
2. Family educational attainment	352	2.66	1.1	-.075	—								
3. black	352	.39	.489	-.021	-.220	—							
4. female	352	.66	.473	-.206	.023	.166	—						
5. Parent nativity	352	1.74	.691	.054	.121	-.472	-.130	—					
6. HS GPA	352	3.54	.402	.016	-.025	-.058	.193	.103	—				
7. financial distress	352	1.92	.841	-.351	.171	-.051	.092	.049	-.035	—			
8. Private	352	1.77	.423	.041	.103	.125	-.052	-.052	-.063	-.08	—		
9. Moderate Fin. Distress by Private	352	.510	.833	.044	.182	-.030	-.132	.029	-.003	.06	.14	—	
10. High Fin. Distress by Private	352	.547	.842	-.334	.080	.004	.114	.026	-.063	.834	.110	-.4	—

Table 21. Hierarchical Regression Analysis for Variables Predicting Certainty College is Worth Cost with Institutional Type

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.773	.964		2.877	.004	.877	4.668					
	family educational attainmen	.135	.064	.116	2.128	.034	.010	.260	.090	.113	.109	.876	1.142
	black	-.016	.159	-.006	-.099	.921	-.328	.297	-.062	-.005	-.005	.717	1.395
	female	-.074	.148	-.027	-.501	.616	-.364	.216	-.037	-.027	-.026	.882	1.134
	Whether parents are US born or not	.089	.109	.048	.819	.413	-.125	.304	.070	.044	.042	.772	1.296
	What was your high school GPA?	.383	.170	.120	2.250	.025	.048	.718	.129	.119	.115	.924	1.082
	Financial Distress	-.407	.341	-.266	-1.194	.233	-1.078	.263	-.204	-.064	-.061	.053	18.969
	Private-Public Universities	-.170	.247	-.056	-.686	.493	-.656	.317	-.010	-.037	-.035	.393	2.543
	financial_distress_moderate_by_Private_Public	.169	.201	.110	.843	.400	-.226	.564	.094	.045	.043	.154	6.496
	financial_distress_high_by_Private_Public	.066	.375	.043	.177	.860	-.671	.804	-.228	.009	.009	.044	22.955

a. Dependent Variable: How sure are you that college is worth the cost?

Table 22. Hierarchical Regression Analysis for Variables Predicting Certainty Will Get Good Paying Job with Institutional Type

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.333	.856		3.893	.000	1.649	5.017					
	family educational attainment	.004	.057	.004	.065	.949	-.108	.116	-.006	.003	.003	.878	1.138
	black	.026	.142	.011	.180	.857	-.254	.306	-.023	.010	.009	.715	1.399
	female	-.201	.132	-.084	-1.515	.131	-.461	.060	-.098	-.081	-.079	.880	1.136
	Whether parents are US born or not	.048	.098	.029	.493	.622	-.144	.240	.033	.026	.026	.767	1.304
	What was your high school GPA?	.106	.153	.037	.693	.489	-.194	.406	.042	.037	.036	.923	1.083
	Financial Distress	.234	.302	.173	.772	.441	-.361	.828	-.156	.041	.040	.053	18.699
	Private-Public Universities	.084	.219	.031	.382	.703	-.347	.514	-.031	.020	.020	.398	2.510
	financial_distress_moderate_by_Private_Public	-.071	.179	-.052	-.395	.693	-.423	.281	.125	-.021	-.020	.156	6.413
	financial_distress_high_by_Private_Public	-.511	.333	-.379	-1.533	.126	-1.166	.145	-.221	-.082	-.080	.044	22.687

a. Dependent Variable: How sure are you that getting a college degree will get you a good paying job?

Table 23. Hierarchical Regression Analysis for Variables Predicting Certainty Will be Able to Repay Loans with Institutional Type

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.462	.889		3.895	.000	1.714	5.210					
	family educational attainment	-.032	.059	-.029	-.543	.587	-.149	.084	-.075	-.029	-.027	.875	1.142
	black	.041	.147	.016	.276	.783	-.249	.330	-.021	.015	.014	.720	1.390
	female	-.458	.137	-.175	-3.341	.001	-.728	-.188	-.206	-.178	-.165	.884	1.131
	Whether parents are US born or not	.105	.101	.059	1.040	.299	-.094	.304	.054	.056	.051	.762	1.312
	What was your high school GPA?	.080	.158	.026	.507	.612	-.230	.390	.016	.027	.025	.930	1.075
	Financial Distress	.009	.316	.006	.028	.978	-.613	.631	-.351	.001	.001	.053	19.003
	Private-Public Universities	.296	.229	.101	1.290	.198	-.155	.746	.041	.069	.064	.397	2.520
	financial_distress_moderate_by_Private_Public	-.213	.186	-.143	-1.140	.255	-.579	.154	.044	-.061	-.056	.154	6.478
	financial_distress_high_by_Private_Public	-.566	.348	-.385	-1.629	.104	-1.250	.118	-.334	-.088	-.080	.043	23.003

a. Dependent Variable: How sure are you that you will be able to repay your student loans?

Conclusion

Black and Latinx college students are entering college and leaving without degrees. This is detrimental for their lives and for society; for their lives in terms of lost time, more debt, and less opportunity (Abel & Deitz, 2014); for society in terms of lost taxes, less community engagement, and less physical health (Ma, Pender & Welch, 2019). Leaving college is more likely to happen during the freshman year transition as they decide whether they can handle college and whether they belong (Tinto, 1993). While Tinto (2017) believes that freshman year transition is based on factors excluding college costs, others have articulated the importance of perceptions of finances in how black and Latinx college students make sense of whether they are satisfied with the financial support provided and stay--or even the decision to attend college (St. John, Paulsen & Carter, 2005; Nora, Barlow & Crips, 2006). It is through the phenomenology of others that we can see the ecological world they move through systematically; it is through the power and insight of PVEST that we conceptualize financial stress as a factor in identity development and college persistence of black and Latinx college students (Spencer et al. 2012). Financial stress serves to decrease subjective well being—leading to stress and depression in some cases (Cherney, Rothwell, Serido, & Shim, 2020; Bridges & Disney, 2010). Struggling with finances can lead to black and Latinx students leaving college (Cabrera, Nora, & Castaneda, 1992). We know less about if experiencing financial distress decreases elements necessary for a successful freshman year transition such as decreasing self efficacy and sense of belonging; we know less about whether financial distress has an effect on their certainty that degree is worth the cost; or if social support or institutional type has an effect on decreasing the doubt incited by financial distress. We added to the literature on the college persistence of black and Latinx college students by considering the complex relationship of financial distress throughout their

freshman year transition. This is done through an examination of a representative sample of 533 black and Latinx freshman college students who attended primarily white universities in the Midwest with the primary theoretical lens of PVEST. We find that Black and Latinx college students who experience high financial distress: (Paper 1) are more likely to see themselves as incompetent and feel rejected or isolated, even when they ask for help; (Paper 2) are more likely to lose faith in the power of the college degree; (Paper 3) are more likely to be certain of the power of the college degree at private institutions; (Paper 3) social support matters less for high financial distress and seemingly more for low to moderate distress.

Financial distress leads to a decrease in self efficacy for black and Latinx college students because they are not able to successfully deal with a major task of college: paying for it (Goldrick-Rab, 2016). College students develop self-efficacy when they are able to successfully accomplish tasks expected of them in college (Bean & Eaton, 2001). This includes being able to be successful in class academically (Chemers, Hu, & Garcia, 2001). For black and Latinx college students, this sense of self-efficacy is more likely to be challenged due to racial microaggressions which challenge their own sense of self worth and capability (Hope et al., 2018). We find that in addition to dealing with the freshman year transition and mastering college-level academics, black and Latinx college students who struggle to successfully handle finances around college believe themselves to be incapable. This sense of incapability happens even when these students come in with similar plans to pay for college having filled out FAFSA, applied for scholarships, and received awards. When looking at students who have successfully managed the task of paying for college, these students see themselves as continually capable and in some cases a role model for their siblings. Yet we see that those who are not able to do so blame themselves and feel they need help and are on their own. For some black and Latinx college students in our

qualitative of sample 70 students, their inability to pay dropped them into a funk leaving some unable to attend classes and eventually leaving college. These students may return and many who left indicated a desire to return.

Some researchers have articulated that just because schooling has halted it does not mean that students who have stopped out have no intentions of returning (Ozaki, 2016; Arcaya, Raker & Waters, 2020). For example, Deterding (2015) found that low-income women of color that had their college schooling interrupted due to Hurricane Katrina still held high aspirations and found that college was symbolically important to their identity and to their futures. We agree with this finding but it may be dependent upon whether students believe that they are incapable due to experience. This led to the question: Does financial distress relate to Black and Latinx students' sense of efficacy and sense of belonging on campus? In our Study 1, we found that students who struggled with high financial distress were not helped even when they asked for it most times. These students were liable to ask people in the financial aid office for help. But this help was not always willing provided. For example, many students spoke about how they were brushed aside when they asked for help, or were given conflicting or inconsistent advice—more oftentimes advice that was not helpful such as suggesting that students take a break because they could not pay. This is even with the idea that FAFSA should make college affordable and a viable pathway to upward mobility (Goldrick-Rab & Kolbe, 2016). Yet it requires the capabilities of someone with the earning potential of a college degree holder to easily afford college as attending college without any financial assistance in the Midwest comes with a price tag of \$65,000 per year as of 2018 (Dickler, 2018).

Some students with high financial distress were able to receive timely help in the form of groceries or scholarships in the middle of semester which facilitated a return for the last semester

of freshman year. The students who received help felt themselves to be supported and had a belief that they found a place to belong. For students who experienced high financial distress, felt that they were not capable, did not receive help even when asking, left school uncertain about what to do to be able to pay off their debt and possibly return. These elements might reflect demoralization instead of depression (Kissane, Clarke, & Street, 2001). Demoralization is a psychiatric condition characterized by a sense of subjective incompetence or the feeling of not knowing what to do, a sense of rejection or isolation due to not meeting up to the expectations others hold for you, and a loss of meaning (Clarke & Kissane, 2002). Demoralization has also been conceptualized as a “giving up or given-up complex” (Tecuta, Tomba, Grandi, & Fava, 2015). While demoralization has typically been examined amongst those with mental health and physical health challenges, it has been argued to be a public health concern (de Figueiredo, 1993).

Demoralization is typically task specific and does not generalize to other elements of worldview (de Figueiredo & Frank, 1982). It is possible that black and Latinx college students who feel they have failed at a task that others are able to accomplish, did not receive help when asking, and felt rejection because of it may not come back and might doubt the cost of college being worth it. In our second study, we found that moderate to high financial distress at the start of the year was related to a decrease in certainty that the college degree would be worth the cost, lead to a good paying job, or allow them to repay loans by the end of the freshman year. Nowadays, many young people see the college degree as necessary for upward mobility (Twenge & Donnelly, 2016; Ovink, 2017). And we find that students come to college with a mix of high aspirations that increase certainty in the college degree being ultimately worth it. Yet we find that the experience of financial distress at the start of the year has a stronger effect on certainty

than aspirations. This is troubling because motivation is especially important for persistence among students of color (Allen, 1999). Yes, Black and Latinx college students who experience high financial distress are more likely to feel incompetent and rejected or isolated on campus. We found that the experience of their freshman year, the experience of financial distress, decreased motivation. This work added to literature on the college persistence of black and Latinx college students by considering the ways in which financial distress decreases motivation through decreasing belief in the meaning of their actions, the meaning of their distress, and the meaning of a college degree. The presentation of a loss of meaning, along with incapability, and distress could signal that a student population is becoming demoralized.

While Tinto (2017) articulated that the perceptions of students' experience during the year matter, his model provided no reflection of financial considerations—almost as if they are background or unimportant characteristics to persistence. Does financial distress relate to lower faith in the power of the college degree and their future with it? Considering Spencer's PVEST as a remedy to this oversight is useful in generating an understanding of black and Latinx college students' complete phenomenological world (Spencer et al., 2012). By considering black and Latinx college students' sensitivity to price and considering the ways in which financial stress must be coped with and understood during a year opens the door to processes of self conception (Spencer, 2006).

Yes, Black and Latinx college students who experience high financial distress are more likely to have lower certainty across all items. While moderate distress is associated with only lower certainty in repaying loans. As black and Latinx college students become stressed, receive little help, are not able to feel successful in coping, and lose meaning in the college degree may have developed an emergent identity that reflects a demoralized self (Hurst, 1999). It is through

the meaning-making of their first year, their perceptions, actions, and outcomes, that black and Latinx college students decide to persist or not. It is through the act of making ends meet, money and understandings of self, that we can understand the act of persistence.

Does the relationship between financial distress and certainty vary by social support or institutional type? Social support is necessary for college students to be able to manage the difficult challenges of college and achieve educational outcomes (Heerde & Hemphill, 2018; Lee & Goldstein, 2016). It is through social support that students are able to persist in the face of mental health challenges that may occur (Lee, 2020). Social support is especially important for the persistence of students of color and first generation college students (Gloria & Robinson Kurpius, 2001; Puente, 2017). However, less work has looked at whether social support can reduce the strength of the relationship between financial distress and decreased motivation. Studies show that those who experience financial distress are more likely to be physiologically aroused and the excess arousal decreases action (Grable, Heo & Rabbani, 2015). In the case of black and Latinx college students, we find that social support (talking to friends and family when in need) has an effect on low and moderate amounts of financial distress—yet this result was not statistically significant. The lack of significance speaks to the smaller sample size and increased correlation amongst the study variables with the inclusion of interactions by social support. However, boxplot trends demonstrate that social support increased certainty for students experiencing low to moderate amounts of financial distress, but not for those with high financial distress. This conforms with previous research articulating the positive effect of social support (Lee, Goldstein, Dik & Rodas, 2020; Tran, Lam & Legg, 2018). But it was troubling that high financial distress was not noticeably influenced by social support. This could indicate that those

experiencing high distress might be in need of immediate institutional support in the form of counseling or financial help.

Institutional type, or whether one attends a private not-for-profit or a public institution, was not found to be statistically significant, despite boxplot trends indicating a possible moderating relationship of institutional type on the connection between financial distress and certainty that the college degree will pay off. Institutional type has been shown to matter for persistence of college students, especially low income students (Titus, 2006a). Institutional type matters because public universities are more likely to acquire most of their revenue from tuition and are less likely to spend on student services (Titus, 2006b). We found that black and Latinx college students who attended private institutions seemed more likely to demonstrate more certainty in the face of distress, especially high financial distress, relative to their public institution counterparts. The lack of statistical significance could have been due to the small sample size of institutional types and correlation between two study variables. Future work should better explore the relationship between institutional type and certainty as it could be driven by awareness of status or prestige of degree or the amount of support services offered to black and Latinx college students (Eide, Brewer & Ehnrenberg, 1998 ;Melguizo, 2008; Landry & Neubauer, 2016). When looking at trends, social support seems more effective for the relation among low and moderate distress and certainty, but not for high financial distress. When looking at trends, institutional type seems to matter more for the relation between high financial distress and certainty.

Ultimately, we found that financial distress mattered for the persistence of black and Latinx college students even those who were high aspiring. In our qualitative sample, tt happened at the start of the freshman year when high financial distress separated students into

two tracks: those who felt they belonged and those who did not. Those who did not feel belonging were more likely to feel subjectively incompetent or not know how to pay the cost even when they filled out FAFSA and came to college with the same expectations/plans to pay for it. In the broader sample, we see that high financial distress was strongly correlated with a decrease of certainty across all items—indicating a consistent identity. We see that social support matters as an intervention for students who experience low to moderate distress at the start of the year but not for those who experience high financial distress. Those students remain likely to leave. Yet we see that whether students attend a private not for profit university seems to matter for all measures of certainty even in the face of financial distress. This leaves of us as a society with the potential challenge of dealing with a demoralized student population.

Policy Recommendations using Spencer’s PVEST as a Remedy

We can see that Tinto’s (2017) model does not provide the insight necessary to deal with the development of financial distress and its effects on Black and Latinx college students in their first year. However, Spencer’s PVEST (2012) can enter as a remedy for the theoretical limitations of the previous model and provide insight into policy recommendations. Spencer built directly on Bronfenbrenner’s Ecological Systems Theory to articulate how individuals from different racial and cultural backgrounds (and particularly marginalized minority groups, with Black American children as an illustrative example) interpreted and negotiated the multiple levels of context laid out by Bronfenbrenner. Spencer (2006) aimed to accomplish all of this from a developmentally-sensitive perspective. Spencer synthesized PVEST as a means of “transforming the paradigm” for how developmental psychologists view Black American children and other marginalized groups, but PVEST has proven to be a comprehensive,

theoretical framework to examine human development and identity formation in context for individuals of all backgrounds.

PVEST consists of five components: 1) Net risk/vulnerability level (the sum and interaction of risk and protective factors in an individual's environment at a given stage of development, which are potential sources of stress and support); 2) Net stress engagement (the sum and interaction of stress factors that are actually encountered and social supports available to deal with stress encounters – these are risk and protective factors that are actualized); 3) Reactive coping strategies (the sum and interaction of behaviors and attitudes that individuals adopt in reaction to stress encounters, in conjunction with social supports they draw upon); 4) Emergent identities: Stable coping responses (the sum and interaction of coping responses, which form a stable identity for an individual during a particular development stage); and 5) Life stage outcomes (the sum and interaction of tangible outcomes that accrue from this process during a particular life stage, and which impact net risk/vulnerability level, etc. for the next life stage). These five components are connected by bidirectional processes and form a cyclic model that recurs through the life course, as individuals develop and encounter new contexts.

Given the challenges faced by Black and Latinx college students during their freshman year transition, it would be useful to then use Spencer's PVEST (2012) as a framework for providing policy recommendations in the form of supports necessary during the freshman year transition. Since Black and Latinx college students are more likely to be first generation college students and more likely to come from lower SES families we can see those as elements that increase the probability of not completing the freshman year (Titus, 2006b). While we saw in in Paper 2 that aspirations were motivating for students, financial distress was more powerfully demotivating. Aspirations served as a protective factor (Component 1) but these protective

factors were not enough to undermine the influence of SES and first generation college student status as risk factors in their respective PWIs. Given what we saw in Paper 1, students who were highly financially distressed typically did not receive help. As such their net stress (Component 2) was high. Since they did not receive help, they were more likely to see themselves as subjectively incompetent and feel rejected, or Component 3, were more likely to react in a maladaptive way. This led to a loss of faith in the future power of the college degree even in the face of high aspirations—or Component 4, at the end of the first year they formed emergent identities because of their inability to manage the burden to pay placed upon them, a demoralized self. In terms of Component 5, this could result in leaving college due to high financial distress leading to a demoralized self. However, Black and Latinx who were highly distressed and attended private universities were more likely to maintain faith in the power of the college degree and social support was only effective at low to moderate amounts of financial distress.

These are a couple policy recommendations inspired by the evidence of the studies, the insight of Spencer's PVEST (2006) and literature. On the basis of Paper 1 & 3, Black and Latinx students who experience high financial distress while not receiving help believe themselves to be incompetent and feel rejected as they are not able to meet up to the expectations of others. Social support from friends and family are not enough to shake this relationship. To remedy this, counterspaces, or spaces that counter the broader narrative around marginalized groups in PWIs, could help. These counterspaces serve as a space for students who experience similar situations on the basis of group membership to engage in story sharing and provide coping strategies for dealing with issues experienced (Keels, 2020). These can be formally institutionalized as a space for students who struggle with finances to meet and talk with others, which could lessen the sense of not meeting the expectations of others. By talking to others who experience high

financial distress, they could realize that they are not alone, or incompetent, as this is a more common challenge that others face. If this is institutionalized, it may provide a means for universities to update the necessary supports for students throughout the year by targeting specific individuals who are struggling making sense and making ends meet. Additionally, there should be more financial aid staff that are familiar with working with first generation college students as these college students are more likely to experience cultural mismatch, or face challenges dealing with environments that place all the burden on individual know-how (Stephens, Townsend, Markus, & Philips, 2012). Further this expectation for individual problem-solving and individual know-how serves those who families have the cultural capital to share with their children. But this does not help first generation college students who find the financial aid system to be opaque and with EFC fluctuating and not reflecting the number of resources available to families. Goldrick-Rab and Kolbe (2016) called for a fixing of the financial aid system to increase the amount of trust marginalized groups feel when engaging with a system that seems to not care about their futures. This restructuring of financial aid could further include financial counseling and career counseling in order to increase the financial self-efficacy of these students as financial self efficacy seems to influence how financial stress is perceived and handled (e.g., Lim, Heckman, Montalto & Letkiewicz, 2014).

Where do we go from here?

In the US, college was initially formulated as a public good, a cost that society should bear with the Higher Education Facilities Act of 1965 (Moore & Field, 1965). College was affordable. Yet college costs began increasing exponentially in the 1970s due to a shift towards neoliberalism or the belief that every individual must bear the cost of their own self investment—as the government would no longer invest in your welfare (St. John, Paulsen &

Carter, 2005). College began to be a cost solely for the individual and no longer subsidized by society. It is telling that the decrease in government support coincided with the rapid college enrollment of students of color—particularly an increase of more than half a million of black college students in a decade from 1970 to 1980 (Associated Press, 1981). Regardless, the rising costs of college has manifested as a student loan crisis (Scott-Clayton, 2018). Many former college students have a degree but are saddled with large amounts of debt affecting their outlook of the future (Walsemann, Gee & Gentile, 2015; Terriuez & Gurantz, 2015). This debt for many made it impossible to acquire a house or achieve the American Dream. This has sparked a revival of our society bearing the cost of education again—in a form similar to the GI Bill (Katznelson, 2005). There are federal government proposals about student loan forgiveness or relief being discussed across the nation with most policies including paying down a portion of the student loan debt of students (e.g., Friedman, 2021). A similar form of government support being offered for those with debt, is a federally backed housing initiative where those with student loan debt can pay off a certain amount of their debt, and have the federal government pay the rest of the debt *and* provide low-interest mortgages in some states such as Illinois (Sheffey, 2021).

It seems as if we are attempting to moralize a population that had been demoralized. These proposals are making things possible that many college degree holders believed to be impossible: paying off student loan debt and purchasing a home or living the American Dream. While opportunities are being discussed to make the cost of college more affordable, we have seen a sharp decrease in black college enrollment preceding the pandemic (Miller, 2020). For a student population sensitive to college costs in making college choice, financial challenges can be a deterrent to applying (Hu & St. John, 2001). But what about those who leave college at the

start of their year? This may be a demoralized population that returns to their networks at home. These students who believe themselves incapable of paying the cost due to unacknowledged demoralization may convey those same meanings to others. It possible that we are not considering what happens to a demoralized group and the networks of those who have been demoralized. Future work should examine networked understandings of transmission.

The idea of emotional contagion is an old idea (Hatfield, Cacioppo & Rapson, 1993). The idea that one's mood can be transferred to another in a network through interaction has begun to get more empirical validation (Hill, Rand, Nowak, & Christakis, 2010). Block and Burnett-Gayes (2021) found in a group of dyadic pairs practicing a joint activity of musical performance for 5-7 days that emotional contagion was happening, and that negative affect was more likely to transfer and persist. Going to college is can also be considered a joint activity in which a person receives help, advice or guidance from some else as they are filling out forms, picking schools, etc (Goodman & Leiman, 2007). If black college students are returning home after leaving college their first year feeling demoralized, it is possible that this could play a role in decreasing black college enrollment. Future work should consider emotional transmission amongst those who believed that their inability to pay reflected personal failure.

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