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Exploring Non-Traditional Adult Undergraduate Student Persistence and Non-Persistence in Higher Education: A Stress and Coping Model Approach

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EXPLORING NON-TRADITIONAL ADULT UNDERGRADUATE STUDENT

PERSISTENCE AND NON-PERSISTENCE IN HIGHER EDUCATION:

A STRESS AND COPING MODEL APPROACH

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Philosophy

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Indiana University of Pennsylvania

School of Graduate Studies and Research

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Title: Exploring Non-Traditional Adult Undergraduate Student Persistence and Non-Persistence in Higher Education: A Stress and Coping Model Approach

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This study explores persistence and non-persistence among adult undergraduate students with particular focus on these students' lives, their stressors, their coping resources including academic supports, and their styles of coping. The study approaches the issue of non-persistence not as a personal failure but rather as a consequence of multiple demands (stressors) and limited coping resources that interfere with persistence to graduation. The specific research question framing the study is, "In what ways are non-traditional adult students who do not earn a degree different from those who do in regard to (a) stressors, (b) social and personal/psychological resources, and (c) types of coping strategies they typically employ (i.e., problem-focused or emotion-focused)?"

Results point to several differences between persisters and non-persisters that warrant further investigation: 1) academic supports and social integration in the classroom were linked to adult undergraduate student retention; 2) social support from a spouse was found to be significant to married adult undergraduate students in terms of persistence; 3) work-related stressors are a major risk factor in regard to persistence; 4) academic self-efficacy of non-persisters appears to be related to attrition, i.e., lack of confidence in formal evaluations (exams and papers); 5) passive/emotion-focused coping was related to non-persistence.

Many factors that influence persistence among adult undergraduate students are beyond the control of colleges and universities. Nevertheless, a better understanding of the challenges faced by these students may inform new and more effective academic support efforts to increase the likelihood of persistence to graduation. The results of this study point to several areas that institutions might address to support adult undergraduate student persistence. They involve preparing students for the challenges they may encounter, making them aware of the resources available to contend with them, and helping them develop skills and plans for coping before problems arise. Several potential interventions are considered.

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CHAPTER I

INTRODUCTION

According to the Council on Adult and Experiential Learning (CAEL, 2008), the

typical image of the undergraduate college student as an 18-24 year old who lives on or

near campus and carries a full-time course load is no longer accurate. Approximately 35

percent of undergraduate students are "non-traditional" adult students who are full-time

employees with family and civic responsibilities (National Center on Educational

Statistics, 2002). While the non-traditional adult student population has increased steadily

since the 1980s, this population has a higher attrition rate than its traditional counterparts:

53 percent of this student population that enrolls in an undergraduate program does not

graduate compared with about 33 percent for traditional undergraduates (Noel-Levitz,

2008).

Student departure from college, as Tinto (1993) refers to it, can be viewed as

positive or negative, depending upon why it occurs. It can be viewed as a positive act if

students learn that some other form of education or training is in their best interests. For

example, the Cisco Certified Network Professional designation is a technical credential

that is not college-based, but is the industry standard for employment (Cisco Systems

Networking Academy, 2007). Quitting college often is viewed negatively, however, and

until recently those doing it have been referred to as college dropouts (Bean & Metzner

1985; Tinto, 1987, 1993). This term has a negative connotation and intimates that a

person who leaves college before completion has failed in some way (Tinto, 1993).

Although extensive research exists on retention of traditional undergraduate

students, very little empirical research exists on non-traditional adult undergraduate

attrition and retention. The little research that focuses on the non-traditional adult student is primarily descriptive and institution-based (DeRemer, 2002; Donaldson & Townsend, 2007) and does not explore the contexts in which non-traditional adult students experience college. However, Bean and Metzger (1985) developed a conceptual model to better understand why non-traditional undergraduate students do not complete their degrees. Tests of their model reveal that the chief differences between traditional and non-traditional students in regard to attrition is that non-traditional students are more profoundly affected by their non-academic lives (that is, the environment external to the college campus) and personal stressors than by on-campus experiences and social integration that affect traditional students.

Purpose and Research Question

The purpose of this study is to better understand persistence and non-persistence among non-traditional undergraduate students, with a particular focus on exploring the contexts of these students' lives, their stressors, their coping resources including academic supports, and their styles of coping. In this study, the term *persistence* is used to refer to degree completion and the term *non-persistence* is used to refer to complete withdrawal from the college. I use these terms interchangeably with the terms *retention* and *attrition*, respectively, although these terms may be used elsewhere to mean different things in different contexts. For example, *attrition* is sometimes used to refer to stop-out or taking time off temporarily (i.e., Kasworm & Pike, 1994), and some institutions consider *persistence* to mean that a student achieves his or her educational goal, whether it is to complete one course or a six-course certificate program for professional development.

The non-traditional adult student population is defined, according to the National Center on Education Statistics (2002), as students who are 25 years of age or older and financially independent of parents, and who are employed full-time, attending college part-time, responsible for dependents other than a spouse, and/or a single parent.

This study approaches the issue of non-traditional adult student attrition not, as it is sometimes assumed, as a personal failure, but rather the consequence of a combination of multiple demands (stressors) and limited resources with which to cope with those demands, that interfere with students' desired outcome (Pearlin, 1989), the attainment of a degree. The specific research question framing the study is in what ways are non-traditional adult students who do not earn a degree different from those who do in regard to (a) stressors or social characteristics, (b) social and personal/psychological resources, and (c) types of coping strategies they typically employ (i.e., problem-solving-focused or emotion-focused) (Lazarus & Folkman, 1984; Pearlin, 1989; Thoits, 1995).

Significance of Study

Since the 1970s, a gap in wage equality has become apparent with the college educated workforce averaging 20 percent more income than the workforce without a college degree (Borjas & Ramey, 1994). Sachs and Shatz (1996) provided two hypotheses for this phenomenon: first, technological change requires an advanced education beyond the high school level and, second, international trade with low-wage countries has shifted demand within the U.S. labor market such that more highly educated workers are needed. John Silvia (2006) identified these same factors as causing the deterioration of the U.S. middle class.

The U.S. Department of Labor, Bureau of Labor Statistics (2002) projects that by 2012, roughly three quarters of job growth will come from three groups of professional occupations: computer and mathematical occupations; healthcare practitioners and technical occupations; and education, training, and library occupations. The manufacturing jobs that once were attainable with a high school diploma and enabled an entire class of people to achieve the American Dream have been lost due to technological advances (Silvia, 2006). Education beyond the high school level is increasingly necessary for middle class income, not only for recent high school graduates, but also for people who entered the workforce more than a decade ago and are now faced with losing their well-paying blue collar jobs, as well as their homes, medical and life insurance, retirement funds, and/or savings accounts (Witte, 2004).

The U.S. Census Bureau predicts that over the course of their working lives, high-school graduates earn an average of $1.2 million, associate's degree holders earn close to $1.6 million, and bachelor's degree holders earn about $2.1 million (Porter, 2002). In addition to the financial rewards of having a college degree, other benefits can be reaped, such as higher levels of savings, increased personal/professional mobility, improved quality of life for degree holders' offspring, and opportunities for more leisure activities (Institute for Higher Education Policy, 1998).

Socioeconomic status in the United States is of significant importance. The middle class has been the primary source of this country's economic strength since the 1940s (Hartmann, 2006). In less than a decade, the middle class is predicted to diminish, leaving the country with two social levels of stratification: the upper and lower classes (Silvia, 2006). Those who currently maintain a middle-class status will be required to

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continue their education now and into the future or find themselves in the lower-paying sector of service occupations, such as the fast food industry or child/elder care (Sachs & Shatz, 1996).

Given this social phenomenon, U.S. workers must become better educated and continually educated to stay competitive in the global marketplace and to maintain their quality of life. Lifelong learning has become "compulsory, if not by law then by necessity," Illeris (2003, p. 14) argues, and adults who do not engage in formal learning across their lives risk economic marginalization (Scanlon, 2009). Therefore, lifelong learning is no longer a cliché buzzword, but a reality of necessity. However, 53 percent of adult undergraduate students are not fulfilling their desired goal of degree attainment (Noel-Levitz, 2008) signals reason for concern.

This study explores the patterns, differences and commonalities that exist among non-traditional adult students who attain a degree and those who do not to better understand why some persist and some do not. According to Pearlin (1989), social research uncovers patterns and regularities that are shared by people whose circumstances are similar. For example, Bean and Metzner's (1985) research found patterns in student departure among non-traditional adult students that differed from traditional college students, specifically that the former are more affected by factors that are external to the college environment than the latter. In keeping with this research tradition and building on earlier work, this research inquiry seeks to identify commonalities among non-traditional adult undergraduate students in relation

to their stressors, coping resources, and coping strategies (Lazarus & Folkman, 1984; Pearlin, 1989) in an effort to develop our understanding of non-persistence and persistence.

Theoretical Framework

The conceptual model that frames this study is the stress and coping model because it lends itself well to understanding non-traditional adult student persistence and non-persistence. The literature on retention and attrition in higher education, reviewed in Chapter II, suggests that there are several types of barriers/stressors with which students must contend, for example, job changes, health problems, financial and legal problems, and personal or family issues (Bean & Metzger, 1985; Cross, 1981; Donaldson, 1999; Graham & Gisi, 2000; Horn & Carroll, 1996; Kasworm, 2003; Osgood-Treston, 2001; Pearson, 2004). These factors can be integrated in the stress and coping model for a more rich and contextualized picture of the factors that may impinge upon non-traditional adult students.

The stress and coping model encompasses three broad, interrelated conceptual categories for understanding the stress process: stressors, mediating coping resources and coping strategies that people use to understand the outcome of stress (Pearlin, et al, 1981). These conceptual categories incorporate the variables that are significant in the literature on non-traditional adult student attrition/retention in higher education. Therefore, this model serves as the conceptual framework for this study.

Stress is a key factor in human existence. Hans Seyle has been noted for the discovery of stress because he identified a non-specific, physiological defense reaction in laboratory rats, which he called the General Adaptation Syndrome (Viner, 1999). Simply

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put, Seyle linked stress to disease. He conceived of disease and health in terms of

successful or unsuccessful adaptation to environmental agents (Viner, 1999). Both the

medical community and social scientists have extended Seyle's research over the years.

Contemporary stress research focuses on the stress and coping process

(Aneshensel, 1992; Lazarus & Folkman, 1984; Pearlin, 1989; Pearlin, Menaghan,

Lieberman, & Mullan, 1981; Thoits, 1995). Stressors refer to environmental, social, or

internal demands that require an individual to readjust his/her usual way of behaving

(Holmes & Rahe, 1967). As stressors multiply, one's ability to cope can be challenged;

this process may be implicated in the probability of an adult student leaving or departing

from college (Tinto, 1993).

People need personal/psychological and social resources to contend with stressors

(Pearlin, 1989). Personal resources are psychological qualities of individuals such as their

sense of self-worth (Rosenberg, 1989; Thoits, 1995) and sense of oneself as an effective

actor who can influence his or her outcomes (Aneshensel, 1992; Thoits, 1995). Social

resources include a variety of contextual factors in individuals' lives, such as their degree

of integration with others and their sense of belonging (Thoits, 1995). Social support

reflects the level or depth of involvement one has with others and the extent to which a

person can count on others to be there for them (Pearlin, 1989; Thoits, 1995). Trust and

intimacy are needed to establish social support (Pearlin, 1989). For instance, just being in

a classroom with other non-traditional adult students would not necessarily suffice as a

social support per se. Development of a trusting rapport among students might be

necessary for them to realize the type of relationships through which social support is

delivered. Coping resources, personal and social, are derived from what people learn

over the course of their lives, through the modification of situations and their meanings, and through the management of stress symptoms as they are encountered in life (Pearlin, et al., 1981).

The last component of the stress and coping process model is coping strategies or styles. At the most basic level, people tend to use two types of strategies for addressing stressors: passive/emotion-focused coping and active/problem-focused coping (Lazarus & Folkman, 1984). Emotion-focused coping consists of cognitive processes that are directed at lessening distress without changing the distressing situation. It includes such strategies as avoidance, minimization, and positive comparisons. Problem-focused coping, on the other hand, utilizes problem solving or strategies directed at changing the distressing situation or oneself, including defining the problem, generating alternative solutions, and conducting a cost/benefit analysis of the alternative solutions (Lazarus & Folkman, 1984; Thoits 1995).

Integrating factors that may be related to non-traditional adult student persistence into the stress and coping model may serve to expand our understanding of persistence and non-persistence in this population and extend our ability to assist these students to attain their educational goals. In light of the importance of advanced education beyond the high school diploma to prosper in an information society (Sachs & Shatz, 1996; Silvia, 2006) and the low percentage of adult students who complete a degree (Noel-Levitz, 2008), understanding why non-traditional adult undergraduate students do or do not continue their education is a relevant issue. Middle class standing increasingly relies on jobs that require the use of advanced technologies, which serves as an impetus for more adults to return to college (Silvia, 2006). It is not clear, however, why over half of

the non-traditional adult students who pursue a baccalaureate degree do not graduate (Noel-Levitz, 2008). We need a more detailed understanding of undergraduate adult student attrition and retention, such as how environmental and personal stressors contribute to adult student departure (Bean & Metzger, 1985; Tinto, 1993, Donaldson & Townsend, 2007).

This study seeks to explore and identify potential risks factors among non-traditional adult undergraduate students by comparing students who persist to graduation with those who do not in terms of the stressors they face, the psychological, social, and academic resources they have to cope with them, the approaches to coping they employ, as well as basic sociodemographic characteristics. The findings from the analyses of the collected data contribute to both social research on stress and coping and our knowledge of adult students in continuing higher education. It builds on and potentially expands on the work on barriers to adult student persistence, such as those identified by Cross (1981), Donaldson's (1999) work on social supports and adult student retention, Kasworm's (2003, 2008) research on meeting adult students' special needs, and Pearson's (2004) research on adult student persistence, as well as the stress and coping model (Aneshensel, 1992; Lazarus and Folkman, 1984; Pearlin, 1989; Pearlin, Menaghan, Lieberman, and Mullan,1981; Thoits, 1995).

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Scope and Delimitations of the Study

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The goal of the study is to identify and describe potential risk factors for non-persistence among non-traditional adult students, using the stress and coping model as a framework. This framework lends itself to the development of interventions to reduce risks of non-persistence by elaborating the process through which students cope with

stressors that may lead either to persistence or non-persistence. This study is not intended to address college students, in general, or all possible risk factors for non-persistence. It is delimited in several ways.

First, the study is limited to non-traditional adult students and the sample comes from former students at one college in the mid-Atlantic region. The college is a private, proprietary institution that had been a former career school. Thus, it is not intended to represent non-traditional adult students, in general. This study is based on a convenience sample that is an understudied population (adult undergraduate students who are middle income and financially secure in contrast with adult undergraduate students who are low income and financially unstable.) The goal of the study is not to generalize the results to a population, but to identify potential factors related to persistence and non-persistence among non-traditional adult students and explore relationships among them that might provide direction for more systematic and comprehensive study in future research.

Second, participation in the study is voluntary and therefore the sample is self-selecting. The former students who chose to participate may differ in important ways from former students who did not participate. This may be the case particularly with the non-persister group as it is unclear why students in this group withdrew from college and some of the members may have less positive regard for the college and therefore be less likely to participate in a study related to their time enrolled at the college. Further, the accuracy of contact information, such as mailing addresses of the persister group, who graduated, is maintained on an annual basis by the college, as these former students are alumni. However, contact information for the non-persister group, former students who

did not complete a degree, is not regularly maintained by the college, and outdated

contact information may have limited the effectiveness of my attempts to reach them.

Finally, this study does not attempt to measure all possible stressors and other risk

factors that may contribute to persistence or non-persistence in higher education among

non-traditional adult undergraduate students. It also does not include all of the

psychosocial resources that students bring to bear on their academic experiences.

Although this study is informed by the literature on persistence in higher education and

on stress and coping, and it includes variables known or suspected to be related to

persistence, no study can account for all possible factors that play a role in a given social

phenomenon. There likely are a host of stressors and coping resources that may affect

non-traditional adult students' ability to persist to graduation that are unaccounted for in

this study but worthy of investigation. However, the scope of this study is limited to

typical stressors encountered in the general population, two psychological resources (self-

esteem and academic self-efficacy), three social resources (social support, social

integration on campus, and academic support), two basic coping styles or strategies

(active/problem-focused and passive/emotion-focused), and a single outcome: persistence

to graduation.

CHAPTER II

REVIEW OF THE LITERATURE

Historical Perspective

In 1947, President Truman's Commission on Higher Education issued a report

entitled *Higher Education for American Democracy* which proclaimed, "Education for

all" (Trivett, 1973). The country was jubilant with having won the War. The GI Bill

provided the opportunity to pursue a college degree to a segment of society that would

not have considered it in the past. The veteran population enrolled in higher education

institutions in unexpectedly large numbers (Parker, 1971). This social phenomenon began

to change the face of the American college campus. Today, 35 percent of college students

are non-traditional adult students: those who are 25 years of age or older, typically

employed full-time, attending college part-time, with dependents other than a spouse,

and/or a single parent (National Center for Education Statistics, 2002).

Social norms in American society have changed, as well, since the end of World

War II. Prior to that time, women's work roles in society were limited to positions such

as food service employees, secretaries, nurses, teachers, and unpaid housework and child

care (Cross, 1981). As social norms for women changed, more women pursued academic

credentials for occupations that were traditionally held by white men, such as the medical

profession. Today, women make up a larger percentage of the adult student population

than men (Aslanian, 2001; Kasworm, 2003).

Economic factors related to the globalization and the economic shift from

manufacturing to information technology play significant roles in adult students returning

to the academic environment (Sachs & Shatz, 1996). The decline of the blue-collar sector

of the economy profoundly affected college enrollments, with large numbers of workers entering or re-entering the labor force choosing between low paying jobs in the service sector or higher paying jobs in technical, business, or professional services that require advanced education and specialized training (Bean & Metzner, 1985).

The growth of the adult student population in colleges and universities raises new concerns about retention and graduation rates. This population has become a significant source of income for numerous institutions of higher education. Higher education has become more market-driven with adult students composing one market among several that institutions need to pursue (Bok, 2003). Given the current social, political, and economic climate, higher education institutions must reach out to all potential student populations to remain competitive and relevant (Zemsky, 2009).

Fifty-three percent of adult students who enter higher education do not complete a degree (Noel-Levitz, 2008). Student retention has long been an issue of concern of education researchers and administrators seeking to develop interventions to enhance graduation rates. Most studies and interventions, however, focus on traditional college students, while non-traditional adult students remain largely overlooked (Donaldson & Townsend, 2007).

Retention

The impetus for conducting research on dropout among traditional college students came from three sources of concern: the declining number of high school graduates, the declining percentage of college students who were persisting to graduation, and the economic shifts that necessitate extended education beyond the high school level for well-paid employment (Silvia, 2006). In 1963, the U.S. had over four million births.

By 1975, annual births dropped to roughly three million – a 26 percent decline (Noel, Levitz, & Sulari, 1985). During the same time period, it came to light that only about fifty percent of all undergraduate students who enrolled in college actually graduated. Coupled with these two issues was the post-industrial phenomenon of the information technology-driven economy in American society. Further education beyond the high school diploma became a necessity for employment at higher wages (Silvia, 2006). These social phenomena gave pause to higher educators, legislators and policy makers, as well social and educational researchers who were concerned about the high rate of dropout among college students.

According to Alansian (2001), the primary reason that adult students enter or re-enter college is related to employment. Additional education is often mandated to retain a position as well as to advance within an organization or a career. Employers may hire or promote younger persons with a degree over individuals with work experience but without the same educational credentials. As a result, increasing numbers of working adults without college degrees are enrolling in higher education. The addition of college to an already demanding life of full-time employment, family, and community obligations can be challenging at best. These competing demands of adulthood can create difficulties that affect non-traditional students' ability to persist to graduation.

William Spady (1970) conducted research on the problem of dropout among traditional college students, conceptually drawing upon Emile Durkheim's work on social integration and suicide. Durkheim (1951, original 1897) suggested that an individual who is not adequately integrated into society is more vulnerable to committing suicide than individuals with many ties to other people. Durkheim's work provided a basis for

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understanding the act of suicide, perhaps the ultimate form of dropping out. Spady (1970) applied the idea that social integration and close personal ties with others are important and examined whether they were related to dropping out of college. He viewed college as a social system with its own culture and social structure. He asserted that college dropout was analogous with suicide in the broader society. When a student did not feel socially connected to the institution and was not integrated into the college community, he/she would leave or dropout of college.

Vincent Tinto (1987, 1993) continued Spady's efforts to understand the college drop-out phenomenon through his research on college freshmen who were full time, residential students. He established a conceptual model that expanded on the notion of integration by incorporating human development, based upon Van Gennep's anthropological perspective of physiological and social puberty (Van Gennep, 1960). Tinto utilized Van Gennep's three rites of passage from adolescence to adulthood in comparing the transition from high school to college as a form of social puberty (Tinto, 1987). He based his theory on three developmental stages or phases that a student must successfully navigate in order to persist onto to the next year of college: separation, transition, and incorporation (Tinto, 1987).

In Tinto's (1987) model, each of the three stages of successful adjustment to college has particular requirements. *Separation* requires a student to disassociate from memberships in the communities of the past, relinquishing old ties to form new ties. In order for a student to be fully incorporated into the life of the college, he/she must socially, as well as physically, depart from his/her former community. Failing to do so makes integration into the new college community problematic. For example, if a student

leaves the college every weekend to spend time with others outside of the college community, he/she will have difficulty moving onto the next stage of *transition* (Tinto, 1987).

Transition is the period of passage between the old and the new. This phase requires the student to find his/her place in the new community. A student whose norms and patterns of behavior easily mesh with the college community will have an easier time of adjustment or transitioning from the old to the new community. Someone whose previous experiences are foreign to a college community will experience more difficulty with incorporating him/herself into the new environment.

After passing through the first two stages of separation and transition, the student is left to *incorporate* him/herself into the college community. In most situations, the student is left to make his/her own way through the maze of institutional life. Daily personal contacts with other members of the college, both formal and informal, are the vehicles by which incorporation occurs. Not all students are able or willing to make the personal contacts necessary to become incorporated into the college community and may eventually depart because they haven't established an intellectual and social membership in the college community. According to Tinto's theoretical model, if a student does not successfully complete these three rites of passage he/she will not persist to the next year of college (Tinto, 1987, 1993). Tinto's notion of incorporation is akin to the concept of social integration, as outlined by Spady's (1970) application of Durkheim's theory of suicide to college dropout. In addition to the three developmental stages, Tinto (1987, 1993) looked at five specific factors that he thought contributed to student retention: high school education and family background; aspirations or motivation; involvement with

academics, faculty, and peers; external commitments; and incorporation, both academic and social. His work was based on Spady's theory of the necessity for integration into academics and college life for student persistence (Metz, 2002).

Astin (1984) paralleled Tinto's work through his Involvement Theory. His premise is that the more involved a student is with college life, inside and outside of the classroom, the more likely he/she will remain in school. Again alluding to social integration as key to collegiate persistence, Astin (1984) offered five basic tenants of *involvement*: 1) involvement requires the investment of physical and psychological energy in different objects that range in the degree of their specificity, such as the student experience or preparing for a chemistry exam; 2) involvement occurs along a continuum, with different students investing different amounts of energy in various objects at various times; 3) involvement includes quantitative and qualitative components; 4) the amount of student learning and personal development is directly proportional to the quality and quantity of involvement; and 5) the "effectiveness of any education practice is directly related to the capacity of that policy or practice to increase involvement" (p. 298). For Astin, then, the factors contributing to persistence are associated with student involvement in college life. Conversely, factors contributing to student departure are associated with the lack of student involvement in college life (Milem & Berger, 1997).

Another theoretical model, based upon Tinto's concepts of academic and social integration of predicting freshman persistence versus voluntary dropout, was introduced by Pascarella and Terenzini (1980). Their work examined the predictive validity of a measure constructed specifically to assess these two dimensions. In particular, they sought to determine whether a multidimensional measure of social and academic

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integration would significantly discriminate between freshman persisters and voluntary dropouts with the students' entering characteristics held constant (Pascarella & Terenzini, 1980). Their work generally supported the validity of Tinto's model. What they newly discovered, though, was the strong connection to persistence of student-faculty relationships as measured by the interactions with faculty. Student persistence was correlated with the relationships' students developed with faculty and the level of concern the faculty demonstrated for them (Pascarella & Terenzini, 1980).

Another contribution to the study of student retention was made by John Bean (1985). His conceptual model of dropout syndrome (a combination of intent to leave, discussing leaving, and actual attrition) emphasizes the academic, social, and personal outcomes in the socialization of students. In his research, Bean found that college grades, institutional fit, and institutional commitment were important predictors of dropout syndrome. *Institutional fit* refers to a student's subjective sense of belonging to the institution as a valued member. Perceived utility of one's education, faculty associations and social life are important variables necessary for institutional fit. *Institutional commitment*, according to Bean (1985), is a personal sense of loyalty to an institution. Educational goals that include graduating with at least a bachelor's degree have a positive effect on institutional commitment. Should a student lack a sense of *institutional fit or commitment*, dropout is more likely than for a student who has developed social-psychological ties to the institution (Bean, 1985).

Most research on college student retention focuses on full-time, traditionally-aged, residential students. The notion of academic and social integration is demonstrated in each of the theoretical models discussed previously. The results repeatedly highlight

that social factors are as critical to student persistence as are academic factors. However, these theories of student persistence may not be adequate for understanding attrition and retention among non-traditional adult students whose social ties largely remain outside the college community (Cross, 1981).

Non-traditional adult students often are married, work full-time jobs, and attend college on a part-time basis (Cross, 1981). The research conducted on the traditional, residential college student population may not have identified the factors that are critical for understanding adult undergraduate student attrition, retention, and persistence. For example, social integration into college life may not play a significant role in the lives of adult students. However, the limited research on adult college students suggests some key considerations, both external to the college experience and internal to the collegiate environment, for understanding success and drop-out among this population.

Adult Student Retention—Factors External to the College Experience

A few studies have examined the different circumstances under which non-traditional adult students experience college. While the various models used in most of these studies emphasize the role of social factors outside the college environment on adult students' persistence, most give some consideration to institutional factors that may interact with adult students' social circumstances and resources. However, the focus remains on the potent role of the many external contingencies in adult students' lives.

Cross's (1981) work provides an initial foundation for understanding adult student persistence or departure. She discovered that adult students face numerous barriers to completing college. She classified these barriers into three groups: situational, institutional, and dispositional. *Situational barriers* arise from people's circumstances

such as financial constraints, work obligations, and family responsibilities. In addition, many adult students do not have the resources or social support they need to pursue a college education. They often need child care and transportation which may not be affordable. Their place of employment or family may not be supportive of their college endeavors thus making it difficult to juggle work, family, attending classes, and studying (Cross, 1981).

Institutional barriers include policies and procedures that were established for the traditional, residential student but that are applied to the adult student, as well (Cross, 1981). For example, many courses needed for degree completion may be taught only during the daytime when most adult students are working. Academic advising and other services often are not available at times when adult students could benefit from them. For instance, the business and financial aid offices may only be open until 5:00 p.m., Monday through Friday, and evening child care typically is not available for students who are taking classes then (Cross, 1981).

Dispositional barriers are related to a student's attitudes and perceptions about his or her ability to pursue a higher education. Cross (1981) found that previous negative educational experiences had a profound effect on non-traditional adult students' self-esteem and raised self-doubts about their ability to be successful. Non-traditional adult students are concerned about being embarrassed in the classroom and fear returning to school, thinking that they will appear less intelligent.

Drawing upon research on traditional student attrition, Bean and Metzner (1985) developed a conceptual model of the attrition process of the non-traditional adult college student population. Traditional theories of student attrition rely heavily on socialization

and social integration to explain the attrition process. Bean and Metzner (1985) argued that the defining characteristic of adult students is a lack of social integration into the institution and the experience of environmental press (Murray, 1938, as cited in Bean & Metzner, 1985). *Environmental press* for non-traditional adult students includes: 1) less interaction with peers and faculty than traditional students usually have; 2) less interaction with peers through extracurricular activities; and 3) greater interaction with the non-collegiate, external environment (Bean & Metzner, 1985).

The conceptual model offered by Bean and Metzner (1985), based on the aforementioned factors, include four sets of variables: defining and background variables, academic variables, environmental variables, and social interaction variables. Defining variables in this model include age, enrollment status, and residence. The background variables are educational goals, high school performance, ethnicity, and gender. Academic variables include study skills and habits, academic advising, absenteeism, major certainty, and course availability.

Environmental factors relate to variables outside of the institution's control. For example, financial constraints and employment conflicts are perceived as environmental factors that could impact adult student persistence or dropout. Outside encouragement and family support are also considered to be environmental considerations regarding adult student persistence. Social integration refers to the extent and quality of one's interaction with the social system of the college environment.

Bean and Metzner's (1985) research based on their model showed that environmental variables were more important than academic variables in persistence among non-traditional adult undergraduate students. They also discovered two

interactions among these variables: environmental support compensated for weak

academic support, but academic support did not compensate for a non-supportive

environment. For example, if a non-traditional adult student has a positive academic

experience but cannot afford or locate child care, he/she is at higher risk of not being

retained. If, on the other hand, he or she is demonstrating marginal academic performance

but has a strong environmental support system, then he or she is more likely to persist

(Bean & Metzner, 1985). The second interaction that they discovered demonstrated that

a high grade point average did not guarantee non-traditional adult student persistence

when there was a perception of low utility, lack of satisfaction, unclear goal

commitments, or high levels of stress. Consequently, the non-academic factors

compensated for low levels of academic support or success, while high levels of

academic achievement only resulted in continued attendance when accompanied by

positive outcomes from attending school (Bean& Metzner, 1985).

Non-traditional adult students are affected by other background factors, as well.

Research that focuses on identifying commonalities or patterns of non-traditional adult

undergraduate students reveals three phenomena regarding adult student persistence

(Pearson, 2004). The first is that adult students with few or no prior college credits are at

the greatest risk of withdrawal from college. According to Pearson (2004), adult students

who re-enter college with some prior college credit are much more likely to succeed than

those who do not. Secondly, adult students enrolled on a part-time basis are more likely

to withdraw than their counterparts carrying a full load of coursework. Third, the

opportunity to earn credit for work and life experience enhanced student retention. What

non-traditional adult undergraduate students seem to most want is to earn their degree in the shortest amount of time possible (Pearson, 2004).

The results of Cross's (1981), Bean & Metzner's (1985), and Pearson's (2004) research helped to identify significant differences between the traditional and non-traditional student attrition process. Non-traditional adult students are more affected by social and background variables that are external to the college environment than by the social variables related to the college community that affect traditional student attrition. However, they also suggest that some experiences internal to the college experience matter to non-traditional adult student retention.

Adult Student Retention—Factors Internal to the College Experience

Based on a synthesis of the literature on adult students in higher education, Donaldson, Graham, Kasworm, and Dirkxm (1999) offered three alternative frameworks for conceptualizing and studying adult student involvement. They are 1) learner participation through adult life roles; 2) learner participation as lifelong learning; and 3) learner participation based in a post-modern society. The first framework acknowledges that adult learners are embedded in the broader world of adult life, family roles, work roles, and adult community roles (Kasworm & Blower, 1994). Consequently, the role of undergraduate higher education for the adult student is to become integrated into the fabric of work, family and community rather than to serve as a socializing agent and instructor for independent adult life (Donaldson, et al., 1999). *Learning participation as lifelong learning* focuses on a broader conceptual framework in terms of adult learning opportunities for the advancement of society. This includes continuing education to enhance one's current knowledge and skills and/or to develop new competencies. This

framework entails varied learning environments and contextual impacts across the lifespan (Donaldson, et al., 1999). *Learner participation based in a post-modern society* suggests that interconnections between students of all ages and collegiate institutions have become fragile and transient. Self-identity is no longer guided by developmental paths and societal certainties. Learning is influenced by external forces and personal interests as deciding factors for change. This framework grapples with past policies and research as they relate to the appropriateness of change and unpredictability that are imbedded in culture and society (Donaldson, et al, 1999).

Based on these frameworks, Donaldson, et al, (1999) introduced a comprehensive model of non-traditional adult student retention that relates six elements of importance to adults' collegiate experiences: (1) prior academic experiences; (2) orienting frameworks such as motivation, self-confidence, and value system; (3) adult cognition; (4) the connecting classroom; (5) life-world environment; and (6) different types and levels of learning outcomes. The *connecting classroom* reflects the concept that classrooms essentially represent the college campus experience for adult students and so must connect them with the institution while honoring their external identities and commitments. *Life-world environment* refers to students' life context of significant social roles and responsibilities beyond college. The adult student is multi-cultural in the sense that he or she is a member of many communities which include different responsibilities and expectations. These significant roles and responsibilities vie for top billing or priority at different stages and times in the adult student life-world environment.

With the exception of life-world environment, this model does not emphasize external social factors, as do Cross's (1981) and Bean and Metzner's (1985) research, but

rather Donaldson, et al. (1999) focus on adult student involvement with learning and relationships related to adult students' collegiate experiences. Their framework suggests that higher educators should view the adult student from a broader perspective which embraces the multiple identities of the adult student. Using a different set of lenses, academia could support, value, and integrate the complexities of the adult student within the world of learning and campus culture.

Donaldson (1999) furthered this work through the development of a model of college outcomes for non-traditional adult students which was based on the previous research presented by Donaldson, Graham, Kasworm, and Dirkxm (1999) in which the *connecting classroom* was likened to a microcosm of the college campus for the non-traditional adult student. Donaldson sees the classroom as the fulcrum of the collegiate experience for adults which must reconcile these students' psychosocial and value orientations, life-world environments, adult cognition, and the outcomes of the collegiate experience (Donaldson, 1999).

An emphasis on the classroom experience is supported by some research evidence that finds a positive effect on retention when the unit of analysis is the classroom and not the institution. One study that focuses on adult students' experience in the classroom reflects the importance of this proximate environment within the college setting. Ashar and Skenes (1993) tested whether Tinto's model, described earlier, with its emphasis on social integration into the college community, could explain retention (versus dropout) among non-traditional adult students. Taking into account adult students' levels of social integration within their college class as well as the students' careers, they found that social integration into the college class and the size of the class were related to dropout

rates. Their data, although based on a small sample of just 25 professional students, showed that retention among adult students is affected by the classroom environment in which learning takes place.

Further investigation of the role of college involvement in adult student collegiate experiences also finds that class-related learning and relationships with faculty have a stronger influence on adult student experiences than out-of-class collegiate activities (Graham & Gisi, 2000). These findings make sense given that adults have limited interaction with other groups within the college community and draw more support from external sources such as friends, family, and coworkers (Graham & Gisi, 2000). Adult students' experiences are in contrast to the traditional student where interaction with peers and involvement with extra-curricular activities form the most powerful support groups that aid in retention (Bean & Metzner, 1985). Therefore, collegiate involvement beyond the classroom appears to play a less significant role in retention of adult students than it does among traditional students.

An Integrated Approach to Understanding Adult Student Retention

How can a more complete picture of the retention/attrition process among non-traditional adult students with evidence pointing to factors both external to the college experience and factors internal to the college experience be obtained? Research by Cross (1981), Bean and Metzner (1985), and Pearson (2004) highlight that non-traditional students are more affected by social factors outside the college environment than by factors internal to the college experience, such as social integration into campus life, that affect traditional students. On the other hand, research by Donaldson, et al (1999), Ashar & Skeens (1993), and Graham & Gisi (2000) point to the importance of the classroom

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experience and social integration within the class as important to retention of adult students.

What is needed is a framework that incorporates more fully the circumstances of adult students' lives that are external to the college experience which can create demands that compete with those of college, the background factors that play a part in retention, as well as the psychological, social, and institutional resources that help adult students cope with the multiple demands of being a non-traditional adult student. The stress and coping model, introduced earlier, lends itself well to that end is (Aneshensel, 1992; Pearlin, 1989; Thoits, 1995).

The Stress and Coping Model Applied to Adult Student Retention

The stress and coping model provides a framework for examining how the demands of an individual's circumstances, both enduring and short-term, affect his or her ability to cope with those demands (Aneshensel, 1992; Pearlin, 1989; Thoits, 1995). It takes into account the various resources that people can draw upon to contend with those demands, as well as how those are related to different coping strategies that they might use, and the outcomes that result. Corresponding to the components of the stress and coping model—stressors, coping resources, and coping strategies, adult students have varying socioeconomic, work, family, and background circumstances that compete with the demands of their academic pursuits. These demands may be ameliorated or exacerbated by the psychological, social, and institutional resources available to them, such as self-esteem, social support and social integration, and college policies and programs, respectively. These resources may affect how they cope with the demands of higher education on top of the other roles and responsibilities in their lives, thus affecting

their outcomes—persistence or drop out. A detailed view of the stress and coping model

makes it more clear how this model can be applied to understanding retention and

attrition among non-traditional adult students.

Stressors	Coping Resources	Coping Strategies	Outcome
Major Life Events	*Personal/Psychological*	*Problem-focused/ Active*	
Chronic Strains	Self-Esteem		
	Academic Self-	Changing the	
Daily Hassles	Efficacy	situation	
	(confidence in	Making and	
Sociodemographic	abilities)	implementing a	*Persistence to*
Age (older)		plan	*Graduation*
Race/Ethnicity	*Social Resources*		
(minority)	Social Support		or
Gender (female)	Supportive	*Emotion-focused/*	
Income (low)	Spouse/Partner	*Passive*	*Attrition* (Drop
Marital Status	Family & Friends		Out before
Children in the	Employer & Co-	Hoping the	Graduation)
home	Workers	problem will go	
Parents Educational		away	
Attainment (no	Social Integration	Changing feelings	
college)	College environment	but not the	
Aging Parents	(especially classroom)	situation	
Health (poor)			
	Academic Supports		
	Advising		
	Tutoring		
	Child care		

Figure 1. Stress and coping model applied to undergraduate adult students.

Stressors

Stress is referred to as internal arousal (Aneshensel, 1992). It was initially labeled

by Hans Seyle in the 1930s who observed the responses of laboratory animals to noxious

stressors (Seyle, 1956 cited in Viner, 1999). He later developed a theory of the General

Adaptation Syndrome wherein the stress state of an organism leads to adaptation and

response to the environment (Viner, 1999). The systematic study of stress in humans grew first within the medical community and subsequently in the fields of sociology and psychology. This gave way to a blossoming literature based on stress theory (Aneshensel, 1992). Conceptualizations of stress generally emphasize a state of arousal either from the environment or the lack of means to attain sought-after ends (Lazarus, 1966; Pearlin, 1983; Menaghan, 1983). External variables that challenge or obstruct are considered to be *stressors* (Aneshensel, 1992).

According to Archer & Lamnin (1985), the role of a college student is stressful. Tests, grades, competition, time demands, and concerns about the future were found to be major sources of academic stress among traditional college students. With adult students, even academic success does not compensate for high levels of stress when it comes to persistence in the student role (Bean & Metzner, 1985). Shields (2001) found that among the majority of non-traditional adult students who drop out, their departures were related to difficulty in handling the stresses of higher education in addition to the other demands in their lives. Thus, stressors can be linked to college drop-out among adult students (Shields, 2001) in much the same way that they are related to illness, disease, or psychological distress (Thoits, 1995).

There are three major categories of stressors identified in the stress and coping literature: life events, chronic strains, and daily hassles (Pearlin, Menaghan, Lieberman, & Mullan, 1981; Lazarus & Folkman, 1984; Pearlin, 1989; Thoits, 1995) and these reflect many of the stressful circumstances faced by adult students.

Life events are acute changes which upset the homeostasis of the system; that is, they disrupt people's lives. Major life events might include the death of a loved one, the

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birth of a child, the loss of a job, or relocating to a new home. Life events often involve losing or taking on new roles (Pearlin, Menaghan, Lieberman, Mullan, 1981; Thoits, 1995). The upset created by a life event requires a readjustment by the person within a relatively short period of time.

A life event or change often propels an adult to return to the academic environment or it can impel a departure (Pearson, 2004). Events such as divorce, children leaving home, loss of a job or gaining a new position might entice the adult student to consider finishing a lifelong goal. However, in some instances, it can impede persistence or lead to drop out. Divorces, loss of work, and health problems have been negatively associated with adult student persistence (Stolar, 1991).

Chronic strains are stressors that place continuing demands on a person and persist over prolonged periods of time. Examples include persistent poverty, a lasting physical disability, a low quality, high conflict marriage, or a high stress job. Chronic strains can become aggravated by life events which can exacerbate stress (Pearlin & Lieberman, 1979). Chronic stressors are prevalent among the adult student who must juggle multiple roles and priorities. Cross's (1981) *situational barriers* represent a host of life circumstances that potentially serve as chronic strains among adult students, including being married, having dependents, holding a job, and financial limitations.

Dill and Henley (1994) found that time and role demands were sources of anxiety and tension for the non-traditional adult students. 85% of non-traditional adult students felt strained from conflicting time demands according to Novak and Thacker (1991). In addition, it was determined that a high level of role strain existed among married college women who were employed and/or who had young children (Van Meter & Agronow

(1982). Among the many sources of stress for non-traditional adult students are the chronic strains of finances, family life, physical health, and responsibilities outside of family roles, such as work obligations (Cleugh, 1972).

Daily hassles are minor, everyday events which require small behavioral readjustments, such as traffic jams, a long wait in line at a store, having to change a flat tire, or the arrival of unexpected visitors at one's home (Thoits, 1995). While daily hassles are less dramatic than life events and, singularly, less taxing over the long term than chronic strains, an overload of daily hassles can become taxing and stressful (Lazarus & Folkman, 1984).

Given their multitude of roles and responsibilities and the number of daily hassles they experience, adult students would be significantly more likely to experience stress than adults who do not have the additional stressor of college. Daily hassles such as arguments with children, unexpected work deadlines, or a malfunctioning oven coupled with writing a research paper, studying for an exam, or preparing for an oral presentation can become overbearing. To cope with all of these demands, the adult student often stops out or drops out of college (Seriodo, Almeida, & Wethington, 2004; Wonacott, 2001).

People confront stressors with a variety of behaviors, perceptions and cognitions that alter or mediate life events, chronic strains, and everyday hassles. These elements are invoked by people on behalf of their own defense and are referred to as mediators in the stress process (Pearlin, Menaghan, Lieberman, & Mullan, 1981). Two sets of factors mediate the effect of stressors on people's lives, the resources they have to draw upon and the strategies they use to deal with the stressors (Thoits, 1995).

Coping Resources

In brief, *coping resources* are personal/psychological and social resources that people use to deal with stressors. *Personal or psychological resources* typically refer to qualities that people develop through social experience: a sense of control or mastery over one's life and a healthy self-esteem (Thoits, 1995). *Mastery*, often used interchangeably with self-efficacy or sense of control, refers to the extent to which one sees him/herself as being in control of his/her own life. *Self-esteem* involves the judgments one makes about one's self-worth (Thoits, 1995). Perceived or real losses of control and low self-esteem have been linked to high levels of stress (Cleugh, 1972).

The literature on retention of adult students alludes to personal or psychological resources as important to student success. Cross (1981) found that adult students often question their ability to pursue a higher education. Many fear the classroom and enter or re-enter with trepidation. Fears of inadequacy are common among the mature student. Rusty study habits, poor memory and the pressure of time overburdens the adult student which can lead to loss of confidence early on in the pursuit of an academic credential (Cleugh, 1972).

Social resources include social support and social integration with others. Social support refers to relationships with significant others who can make available a social fund from which one can draw support (Thoits, 1995). Family, friends, and coworkers can provide emotional support, tangible support (direct aid and services), and informational support (Lazarus & Folkman, 1984). According to Pearlin, et al, (1981), the quality of the relations one has is reflected by the exchange of intimate

communications and the presence of solidarity and trust. Better quality relationships, therefore, are more effective as resources for coping with stressors.

The literature on adult students suggests that social support from family and employers may play important roles in retention (Cross, 1981; Bean & Metzger, 1985; Tinto, 1993; Graham & Donaldson, 1996; McGivney, 1996; Kasworm, 1997; Dalrymple, 2000). Donaldson, et al, (1999), referred to these individuals as reinforcing agents that support the adult student's return to higher education. They include family members, co-workers, supervisors, and community members with whom the adult student interacts on a consistent basis. Conversely, these same people can undermine the psychological and social support needed for the adult student to persist to graduation (Donaldson, et al, 1999).

Social integration is defined as participation in a broad range of social relationships (Brissette, Cohen, & Seeman, 2000). It is rooted in Durkheim's (1951, 1897 original) work on social conditions and suicide. According to Cohen (2004), social integration is thought to influence one's sense of self. It provides social norms and role expectations that are shared among people and helps to guide social interaction. In meeting normative role expectations, one gains a sense of meaning, belonging, security and self-worth (Cohen, 2004).

Social integration can prove to be useful in informational and tangible ways, as well (Lazarus & Folkman, 1984). For example, an adult student might find a referral for a degree completion program or financial aid information through his/her professional or social network in the community. Social integration for the adult student within the college classroom has been linked to adult student retention (Ashar & Skenes, 1993;

Donaldson et al, 1999). Integration in the form of social contacts and establishing

relationships with faculty also are associated with positive adult student experiences

(Graham & Gisi, 2000).

Other types of social resources might include various forms of social capital, such

as social connections, material resources such as money, housing, transportation, and

access to valued services such as medical care and loans (Aneshensel, 1992; Thoits,

1995). For non-traditional adult students, campus services and resources such as

tutoring, childcare, and advising, could represent important social resources for coping

with stressors that might be related to persistence.

<div align="center">**Coping Strategies**</div>

Coping strategies are ways in which individuals deal with stressors, and the types

of coping people employ may depend upon the coping resources available to them. The

two basic types of coping strategies are problem-focused/active efforts to alter the

distressing situation and emotion-focused/passive attempts to manage one's feelings or

perceptions in response to the situation (Thoits, 1995). People may employ both types of

strategies when dealing with stressors, but problem-focused/active coping strategies

typically are more effective in reducing stress (Thoits, 1995). *Problem-focused/active*

coping strategies are similar to strategies used to solve problems. They generally consist

of defining the problem, constructing alternative solutions, considering the alternatives in

terms of outcomes, and then taking action. Problem-focused/active coping strategies can

reduce stress when the situation allows for task-oriented behaviors (Lazarus & Folkman,

1984). According to Menaghan (1983), people with high self-esteem and self-

efficacy/mastery (perceived control over one's outcomes) are more likely to use

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active/problem-focused coping responses to stress. Individuals with low self-esteem and self-efficacy/mastery are more likely to use passive/emotion-focused coping strategies.

Emotion-focused/passive strategies include avoidance, minimization of the problem, distancing, positive comparisons and finding positive value in negative events (Lazarus & Folkman, 1984). These types of strategies may be effective in reducing stress with some types of chronic, problematic situations, for example, when a healthcare practitioner emotionally distances him/herself from a patient in order to provide effective care (Lazarus & Folkman, 1984). However, both low self-esteem and low-mastery are linked to passive or emotion-focused coping mechanisms (Thoits, 1995).

Schlossberg (1989) identified the non-traditional adult student as one in transition. She revealed through her research that these students often view college as a way to help them solve life problems or concerns. The decision to enroll in a higher education institution frequently comes from a life event such as divorce, loss of a job, or getting married and having a family. Because many non-traditional students are in transition, they may question their ability to handle college-level work and all their other responsibilities at the same time. Their confidence about their choices and changing directions can raise doubt and challenge their self-esteem (Schlossberg, 1989).

Shields (2001) found that low self-esteem and low mastery were related to drop-out among adult college students. Wylie (2004) linked negative self-worth with adult student non-persistence and postulates that the adult student quickly evaluates and decides whether to persist in college based upon his or her self- concept and self-worth as it relates to the academic environment. Wylie's model utilizes self-concept (referencing self-esteem) as one of the mediating variables to predict adult student persistence. If an

adult student's self-esteem is challenged by the fear of failure at the onset, the likelihood of withdraw is more prevalent (Cross, 1981; Wylie, 2004).

Research Questions

Much of the literature related to non-traditional adult undergraduate students is descriptive or focused primarily on institutional factors (DeRemer, 2002). Little empirical research exists on non-traditional adult undergraduate student persistence and attrition. The scant evidence suggests that the demands of the external environment and their impact on non-traditional adult undergraduate students' abilities to juggle major priorities simultaneously are important in persistence (Cross, 1981; Bean & Metzner, 1984; Dill & Henley, 1994; Novak & Thacker, 1991; Shields, 2001). Stressors can influence whether a non-traditional adult undergraduate student persists to graduation or reduces the stress in his or her life by withdrawing from college (Cross, 1981; Kasworm, 2000, 2008; Pearson, 2004). Psychosocial coping resources, like self-efficacy/mastery and self-esteem, social support and social integration (which can be both external and internal to the college environment), may mediate the relationships between the multitude of daily hassles, chronic stressors, and life events on the outcomes of non-traditional adult students. However, models of attrition/retention among these students typically do not consider these elements together to better understand persistence among non-traditional adult students.

Consequently, this study explores several research questions: What are the life circumstances and personal/social characteristics that identify non-traditional adult students who may be at risk for drop-out and most likely to persist to graduation? What stressors, coping resources, and coping styles are related to persistence and non-

persistence? How are these factors related? And, ultimately, what can we learn about the

contexts of non-traditional adult students' lives that may point to interventions and policy

changes by institutions of higher education to better serve non-traditional adult students?

CHAPTER III

METHODS

Research Design

A correlational and exploratory research design (Mertens, 1998) was used to collect data for this study. The instrument used was a survey designed to assess commonalities and differences in predictors of the dichotomous dependent variable: adult undergraduate study persistence. Using this type of research design allowed for the use of several independent variables in one study (Mertens, 1998) to explore commonalities and patterns among and between persisters and non-persisters (Pearlin, 1989).

The survey gathered data on measurements of stressors, personal/psychological and social resources, including academic supports and social integration on campus, and coping strategies. It was developed by adapting the following instruments: Adult Student College Experience Survey (Bush, 1991); Self-Esteem Scale (Rosenberg, 1989); Academic Self-Efficacy Instrument (McCue-Herlihy, 1997); Ways of Coping Revised (Folkman & Lazarus, 1985); Academic Supports and Social Integration Inventory (Weiland, 2001); Life Changes Scale (Holmes & Rahe, 1967); Chronic Stressors Inventory (Insel & Roth, 2006); and Daily Hassles Scale Revised (Holm & Holroyd, 1992).

This study sought to identify the (a) stressors, (b) personal/psychological and social coping resources (including academic resources), and (c) coping strategies that distinguished non-traditional adult students (in the study sample) who persisted to earn a

degree from those who did not, and to consider potential interventions to enhance

persistence based on these factors.

Hypotheses

H1: More stressors (financial constraints, family roles, and employment) are related to

adult student attrition.

H2: Greater personal/psychological resources are related to adult student retention.

H3: Greater social support, both within the college setting and external to it, is associated

with adult student retention.

H4: Greater social integration with others, both within the college setting and external to

it, is associated with adult student retention.

H5: Higher levels of coping resources are associated with problem-focused/active coping

strategies (versus emotion-focused/passive coping strategies.)

H6: Higher levels of coping resources reduce the influence of stressors on adult student

attrition.

H7: Problem-focused/active coping strategies reduce the influence of stressors on adult

student attrition more than emotion-focused/passive coping strategies.

Sample

The data for this study on the characteristics and differences between persisters

and non-persisters among non-traditional adult college students come from 134 former

students who attended a small career college located in Central Pennsylvania. Using the

college's student database, non-traditional adult students, those age 25 and older, who

attended the college between March 2002 and March 2007 (the college is on a quarter

system), were divided into two groups: 236 people were identified as *persisters*, having

graduated, and 428 people were identified as *non-persisters*, having withdrawn from the college during the study period. The total sample population was 664. The non-persister group total is nearly twice the number of the persister group. The number of non-persisters who were anticipated to participate in the research study was expected to be relatively small because, according to Tinto (1987, 1993) students who do not feel a sense of belonging or attachment to an institution often withdraw or drop out. Thus, the non-persisters in the sample were expected to be less likely to respond to a survey as those students who persisted to graduation. Consequently, rather than selected equal size samples for the persisters and non-persisters from the sample population, the entire sample population was invited to participate in the study. This meant that a larger number of non-persisters than persisters were included in an effort to obtain an adequate sub-sample of non-persisters for analyses.

Procedures

Members of the sample population received, by postal mail, a letter of informed consent that explained the purpose of the study and invited their participation in an anonymous survey, along with a self-addressed, stamped reply postcard. The postcard was provided for subjects to indicate, if willing to participate, how they prefer to complete the survey questionnaire: 1) with a paper version of the questionnaire received and returned by direct mail, 2) by accessing an internet version of the questionnaire, or 3) in-person following a complimentary breakfast at the college. Providing three alternatives for questionnaire completion was intended to increase the number of responses that potentially would enhance the robustness of data analysis (Mertens, 1998). Subjects who preferred to participate by direct mail were sent a paper copy of the anonymous survey

questionnaire, along with a self-addressed, stamped return envelope. Individuals who elected to participate by attending the breakfast were provided with the questionnaire and were asked to place it in a sealed box to ensure their anonymity. The internet address and access information for the online version of the survey was included in the letter, thus permitting individuals to participate anonymously at their convenience. A follow-up, reminder postcard requesting participation was sent two weeks later. Finally, using the sample population list generated from the college's data base, several weeks after the reminder postcards were sent, the researcher randomly selected 15% of the sample population and called selected individuals on the telephone, leaving a message briefly explaining the study and requesting participation. In sum, 134 of the college's non-traditional adult former students responded for a response rate of 20.2% of the sample population (80 persisters and 54 non-persisters.)

Variables and Measures

Dependent Variable

Undergraduate adult student persistence. For this study, *persistence* is defined as graduating, and a persister is a student who graduated with a degree. (Degree attainment at this college included both the associate and bachelor degrees.) A *non-persister* refers to a student who matriculated into a degree program but did not graduate. Non-persisters had not been enrolled at the college for at least one academic year prior to the study.

Independent Variables

Stress and Coping Variables

  Stressors. Measures of stressors (life events, chronic strains, and daily hassles) were adapted from widely used, general inventories. Ten items were used to identify stressful *life events* (Holmes-Rahe, 1967) that were experienced while the student was enrolled at the college: 1) death of a spouse; 2) divorce; 3) marriage separation; 4) jail term; 5) death of a close relative; 6) injury or illness; 7) marriage; 8) loss of a job; 9) marriage reconciliation; and 10) moving or relocating. Respondents were asked to check those life events that they experienced while enrolled at the college. Responses were scored in several ways for different analyses. First, each type of life event was examined individually as dichotomous variables (the life event either did or did not occur) to examine potential differences between non-persisters and persisters. The life event items also were aggregated by summing them into a *total life events* score. And, because not all life events have the same impact on people, they were ranked from 10 to 1, with 10 being the most stressful occurrence (Holmes & Rahe, 1967). For example, the death of a spouse is weighted at 10 and moving/relocating is weighted at 1. These scores were summed and used for comparative analyses, as well.

  Chronic stressors experienced by students while enrolled at the college were identified using ten items adapted from Insel and Roth (2006) as follows: 1) not enough time to meet obligations; 2) conflicts with family; 3) health problems; 4) conflicts at work; 5) separation from loved ones; 6) cash-flow problems; 7) child or elder care problems; 8) car or transportation problems; 9) housing problems; and 10) difficulty accessing a computer or having a reliable one. The response categories were coded 0 =

"Not at all" to 3= "All of the time." Each type of chronic strain was examined individually for differences between non-persisters and persisters, and aggregated by summing them into a *total chronic strain* score.

Daily hassles reflect the frequency of daily hassles (Holm & Holroyd, 1992) that students experienced while attending the college. Ten items are measured: 1) flat tire or car trouble; 2) argument with significant other; 3) home appliance breakdown; 4) traffic accident or detour; 5) crisis at work; 6) lost item (wallet, keys, school work); 7) trouble sleeping; 8) ill child or relative; 9) flu or allergy symptoms; and 10) schedule conflicts. The response categories were coded 0 = "Not at all" to 3= "All of the time." Each type of daily hassle was examined individually for differences between non-persisters and persisters, and aggregated by summing them into a *total daily hassles* score.

Personal/Psychological Resources

Self-esteem was measured using the 10 items that comprise the Rosenberg Self-Esteem Scale (1965). Items include: 1) "On the whole, I am satisfied with myself;" 2) "At times, I think I am no good at all" (reverse coded); 3) "I feel that I have a number of good qualities;" 4) "I am able to do things as well as most other people;" 5) "I feel I do not have much to be proud of" (reverse coded); 6) "I certainly feel useless at times" (reverse coded); 7) "I feel I'm a person of worth, at least on an equal plane with others;" 8) "I wish I could have more respect for myself" (reverse coded); 9) "All in all, I am inclined to feel that I am a failure" (reverse coded); 10) "I take a positive attitude toward myself." The response categories range from "strongly agree" (coded 3) to "strongly disagree" (0). Scores are averaged and higher scores indicate higher self-esteem.

Academic self-efficacy is measured using 15 items adapted from McCue-Herlihy's (1997) academic self-efficacy scale. These items reflect adult students' level of confidence in the academic environment with answers ranging from "Not confident at all" (0) to "Very confident" (3). The items are: 1) Participating in a class discussion; 2) Answering a question in a class with more than 30+ students; 3) Answering a question in a class with less than 15+ students; 4) Taking "objective" tests; 5) Taking "essay" tests; 6) Writing a high-quality paper; 7) Helping other students with their studying; 8) Explaining a concept or idea to another students; 9) Asking a professor in class to review material covered that you don't understand; 10) Talking to a professor privately; 11) Challenging a professor's opinion; 12) Balancing school and family responsibilities; 13) Completing tasks on time; 14) Managing financial responsibilities of school and home; 15) Managing time demands. In this study, the academic self-efficacy items factored into four dimensions with acceptable reliability: confidence in *classroom interaction* (6 items, Chronbach's alpha = .88), confidence in *time management* (4 items, Chronbach's alpha = .84), confidence in *formal evaluation* (exams and papers) (3 items, Chronbach's alpha = .72), and confidence in *helping other students* (2 items, Chronbach's alpha = .78, r = .65). The items for each of the four dimensions are averaged into their respective measures: efficacy in classroom interaction, efficacy in time management, efficacy in formal evaluation, and efficacy in helping other students.

Of note, McCue-Herlihy (1997) did not identify distinct dimensions of the academic self-efficacy scale. Thus, one of the contributions of this study is that it identified four different dimensions of academic self-efficacy. Since they were found in this study, other researchers using McCue-Herlihy's scale should consider examining

their data through factor analyses. If other studies reveal a similar pattern, the academic efficacy scale can be refined to better pinpoint the types of self-confidence that are most strongly related to particular student outcomes.

Social Resources

Social support is measured using seven items from Bush's (1991) Adult Student College Experience Survey. These reflect the level of support that respondents felt from (a) spouse or significant other, (b) parents, (c) children, (d), friends, (e) employers, and (f) co-workers, while attending the college. The response categories are "very unsupportive (coded 1), "somewhat unsupportive" (coded 2), "neither supportive nor unsupportive" (coded 3), "somewhat supportive" (coded 4), "very supportive" (coded 5), and "not applicable" (coded as missing). Each source of social support was examined individually for differences between non-persisters and persisters, and aggregated by summing them into a *total social support* score.

Social integration on campus is measured by using eight items (Chronbach's alpha = .84) adapted from Weiland's (2001) study. These items ask respondents to rate the level of importance to them, during their time at the college, of having social contacts with faculty, of getting involved in intramural sports, of getting involved in college-sponsored clubs, of friendships with other students, of knowing classmates by name, of belonging to a study group, , and of "fitting in" on campus and in class. The response categories range from "not important at all" (coded 0) to "somewhat unimportant" (coded 1), to "neutral" (coded 2), to "somewhat important (coded 3), to "very important" (4). Responses to the eight items, which factor as a single dimension, are averaged into a social integration score with higher scores reflecting that social integration on campus

was of greater importance to the student. It is important to note that this measure does not reflect how integrated students were on campus while they were enrolled at the college, but instead the importance to them of being integrated. This variation on this measure is used because it fits better with the goals of the study—finding out what factors are important to non-traditional student persistence (versus drop out). If persisters indicate that social integration was important to them, and non-persisters do not, this would suggest an opportunity for intervention whereby colleges might strive to create settings and situations that would help non-traditional adult students make social connections with fellow students, as well as faculty and staff, and to develop a sense of belonging at the institution (as opposed to leaving this to chance and individual preferences).

Academic supports are measured by using 18 items adapted from Weiland's (2001) study asking students to rate the level of importance of academic services and campus programs in their overall experience while enrolled at the college. For example, the former students in this study were asked how important the availability of such factors as academic advising, transportation, and child care were to them while they were enrolled at the college. The response categories range from "not important at all" (coded 0) to "somewhat unimportant" (coded 1), to "neutral" (coded 2), to "somewhat important (coded 3), to "very important" (4). In factor analysis, these items factored into distinct three dimensions. The first factor, reflecting the importance of **academic guidance**, is comprised of eight items (Chronbach's alpha = .89), such as help planning for courses, academic advising, orientation, and help registering for classes. The second factor, reflecting the importance to the student of **campus resources and services**, also is made up of eight items (Chronbach's alpha = .84) such as on-campus child care, food services,

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library resources, tutoring services, and career counseling. The third factor, the importance of **campus feeling safe and welcoming**, is made up of three items (Chronbach's alpha = .79) such as the campus feels safe and feeling valued and respected on campus.

Coping Strategies

Coping strategies are measured using 42 items from Lazarus and Folkman's (1985) abbreviated *Ways of Coping Scale* which taps into the frequency with which individuals use different coping strategies to deal with stressors. **Active/problem-focused** coping is measured by 21 items (Chronbach's alpha = .86), such as, "I made a plan of action and followed it" and "I tried to analyze the problem in order to understand it better." **Passive/ emotion-focused** coping is measured by 21 items (Chronbach's alpha = .83), such as, "I had fantasies or wishes about how things might turn out" and "I went on as if nothing happened." Response categories are "never" (coded 0), "seldom," "sometimes," to "often" (coded 3). Scores are averaged for each of the two measures and range from 0 to 3.

Demographic Characteristics

Gender was measured by asking respondents, "What is your gender?" and offering two response categories, "man" (coded 1) and "woman" (coded 0). *Age* is measured with a single item, "What was your age in years at the time of your initial enrollment at the college?" **Race/ethnicity** is recorded with an item asking, "With what race/ethnicity do you identify?" and respondents are provided 6 response categories: "1) African-American; 2) American Indian/Alaskan Native; 3) Asian or Pacific islander; 4) Caucasian/White; 5) Hispanic/Latino; Other, please specify." Because so few

respondents were racial or ethnic minorities, this variable was recoded into "nonwhite" (1), with whites coded 0 and all others coded 1. **Marital status** reflects the following: a) married, b) single, c) separated, d) divorced, or e) widowed. Respondents are also asked if their marital status changed during the course of their study and, if so, did it change to being separated, divorced or widowed. **Total household income** is measured in $10,000 ranges from *less than $10,000* to *over $60,000.* To simplify analyses, this variable was recoded into three categories: lower income (under $40,000), middle income ($40,000 to $59,999), and higher income ($60,000 and above).

Respondents were asked their level of *education* prior to entry into the college, however, the data from this item were deemed unreliable and dropped from analyses. According to the college's administrative records, less than 1% of new adult undergraduate students admitted to the college have a bachelor's degree. However, 48.6% of the respondents in this study indicated that they had this level of education prior to enrolling at the college. It appears that respondents may have been indicating their current level of education rather than their level of education before enrolling at the college in this study. This item was intended to serve as a control variable; the literature suggests that prior education is an important predictor of persistence, but due to the erroneous responses the resulting data could not be used for this purpose.

The survey also asked respondents about their parents' levels of education, measured in categories ranging from *less than high school* (coded 0) to *bachelor's degree or higher* (coded 4), it was possible to identify first generation college students, and create a control variable reflecting that information: students whose parents, both mother

and father, had no college experience are coded 1, as first generation college students, and others are coded 0.

Number of classes taken per term is ascertained by an item that asks respondent, "During a typical term, how many credits did you take?" Four response categories range from "credits" (coded 1 to represent 1 three-credit class), "6 credits" (coded 2 because it reflects 2 classes), "9 credits" (coded 3), and "12 credits" (coded 4).

Data Analysis Procedures

Data were entered into an *SPSS* database for statistical analyses to identify the (a) stressors, (b) personal/psychological and social resources, and (c) coping strategies that distinguish adult students who persist to earn a degree from those who do not and to test the study hypotheses. Using univariate statistics, a summary of the descriptive statistics, such as the demographic characteristics of the sample and the distributions of the study variables, was established. Cross-tabulations with chi-square and independent samples *t*-tests, as well as analyses of variance, were used to compare *persisters* and *non-persisters* on key study variables and to identify any differences between these groups. Simple logistic regression equations are used, to the extent possible with a relatively small sample, to test relationships among the stress and coping variables and the dichotomous dependent variable, undergraduate adult student persistence to graduation (*persister* or *non-persister*). The relatively small sample was not adequate for conducting logistical regression analyses of persistence versus non-persistence on a combination of stressors, sociodemographic characteristics, coping resources, coping strategies simultaneously. Cell sizes became too small to derive meaningful results. Consequently, I relied on less complex analyses to examine the relationships between variables.

Validity and Reliability

Although the results of this study cannot be generalized to adult undergraduate students in general since the sample is not representative of this population (Mertens, 1998), this sample reflects an understudied segment of the adult student population: predominately White middle income, and fully employed. Thus, this exploratory research should generate data useful for comparison with other adult undergraduate student populations in other studies.

The validity data in this study is supported by using measures from established scales and indices (discussed earlier in the chapter) as well as multi-item measures that are validated in this study through factor analyses. The reliability of multi-item study variables was tested and all were acceptable (Chronbach's alpha scores ranging from .72 to .89) (Salkind, 2007). The reliability of measures tested and reported using Chronbach's alpha are listed in Appendix A: Description of Study Variables.

CHAPTER IV

RESULTS

One of the main goals of this study was to identify potential risk factors for non-persistence (versus persistence) among non-traditional, adult college students. The analytical model that frames the research integrates variables from models developed by Astin (1984), Bean (1985), Tinto (1993) and others into the stress and coping framework (Lazarus & Folkman, 1985; Pearlin, 1989). Bivariate correlations among study variables are reported in Appendix B. Since the aim of this study is more exploratory and descriptive than predictive, and because the sample size is small, I report relationships that approach significance ($p < .10$) in the analyses as they may suggest important variables to explore further in future research.

Descriptive Statistics

Table 1 provides the descriptive statistics for the study sample, as well as the results of contrasts between non-persisters and persisters. Just over one-third of the sample (34.3%) was comprised of men. Fewer than one in ten (9.7%) respondents are non-white. Persisters and non-persisters are not different in their gender and ethnic composition. The average age of the sample is 35.1 years old. An analysis of variance revealed that non-persisters are slightly older ($p < .10$) at 36.9 years than persisters at 33.9 years. Most members of the sample (62%) are middle income, with household income levels of $40,000 or higher. Among the segment of the sample that has income below $40,000, an analysis of variance shows that a smaller proportion ($p < .10$) is comprised of non-persisters (29.6%), in contrast with persisters (43.8%). Most respondents (79.1%) were employed full-time during their enrollment at the college. Half

of them (50.7%) were married, while just over one-third (35.8%) were single, never

married while they were students. Slightly more than one-third (36.6%) of the sample has

children under the age of 18 in their homes during their enrollment.

Table 1. *Demographic Characteristics of Study Sample*

	Persisters (n = 80)	Non-Persisters (n = 54)	All (n =134)
Gender (men)	32.5%	37.0%	34.3%
	(26)	(20)	(46)
Ethnicity (non-white)	8.8%	11.1%	9.7%
	(7)	(6)	(13)
Age (years)	33.91	36.93†	35.13
	(9.63)	(9.08)	(2.79)
Household Income			
Lower Income (< $40,000)	43.8%	29.6%†	38.1%
	(35)	(16)	(51)
Middle Income ($40,000 - $59,999)	23.8%	27.8%	25.4%
	(19)	(15)	(34)
Higher Income ($60,000+)	32.5%	42.6%	36.6%
	(26)	(23)	(49)
Employment Status			
Full-time	76.3%	83.3%	79.1%
	(61)	(45)	(106)
Less than full-time	23.8%	16.7%	20.9%
	(19)	(9)	(28)
Marital Status			
Married	48.8%	53.7%	50.7%
	(39)	(29)	(68)
Single, never married	38.8%	31.5%	35.8%
	(31)	(17)	(48)
Divorced, separated, widowed	12.6%	14.9%	13.3%
	(10)	(8)	(18)
Parental Status			
Children under age 18 in the home	30.0%	38.9%	36.6%
	(24)	(21)	(45)
First Generation College Student	60.0%	64.8%	61.9%
	(48)	(35)	(83)
Classes Taken per Term	2.70	2.11***	2.46
	(.86)	(1.02)	(.97)

**** $p \le .001$, ** $p \le .01$, * $p \le .05$, † $p \le .10$
Number of cases are shown in parentheses below percentages, where appropriate.
Standard deviations are shown in parentheses below means, where appropriate.

In regard to characteristics associated with education, the majority (61.9%) of respondents are first-generation college students with little difference between persisters and non-persisters. On average, individuals in the sample took 2.46 classes per semester during their enrollment. Non-persisters took fewer classes (2.11, $p < .001$), on average, than persisters (2.70). In bivariate analyses (Appendix B, Bivariate Correlations), taking more classes was related to persistence ($r = .30$, $p < .01$) In sum, there were few significant differences in sociodemographic characteristics between persisters and non-persisters in this sample; non-persisters were slightly older, were less likely to have lower household income, and took fewer classes per semester than students who persisted to graduation.

Distribution of Study Variables

Table 2 reports the distribution of stressors in the sample and compares non-persisters with persisters. Major life events were not common during the time that these non-traditional adult students were enrolled in the college. Moving/relocating was the most common event, experienced by one in five respondents (20.9%), followed by death of a close relative at 19.4%, and injury or illness (12.7%). No other life events were experienced by 10% or more of the sample as a whole. However, 13% of non-persisters were fired from their job, a significantly higher proportion ($p < .05$) than persisters (2.5%) according to the results of a chi-square test. Also, fewer non-persisters (13.0%, $p < .10$) moved during the period of their enrollment than did persisters (26.3%). Bivariate correlations (Appendix B) show no relationship between the total number of life events and persistence.

Table 2. *Distribution of Stressors in the Sample*

	Persisters	Non-Persisters	All
Life Events (that occurred during enrollment)			
Spouse's death	0.0%	1.9%	0.7%
Divorce	3.8%	5.6%	4.5%
Marriage separation	3.8%	9.3%	6.0%
Jail term	0.0%	0.0%	0.0%
Death of a close relative	20.0%	18.5%	19.4%
Injury or illness	10.0%	16.7%	12.7%
Marriage	10.0%	5.6%	8.2%
Fired from job	2.5%	13.0%*	6.7%
Marriage reconciliation	0.0%	3.7%	1.5%
Moving	26.3%	13.0%[†]	20.9%
Chronic Strains (mean frequency during enrollment)[a]			
Not enough time to meet obligations	.80	.70	.76
	(.77)	(.77)	(.77)
Conflicts with family	.66	.65	.66
	(.64)	(.71)	(.66)
Health problems	.40	.39	.40
	(.63)	(.56)	(.60)
Conflicts at work	.64	.57	.61
	(.66)	(.79)	(.71)
Separation from close others	.65	.56	.61
	(.84)	(.74)	(.80)
Cash-flow problems	.90	.93	.91
	(.91)	(1.04)	(.96)
Child or elder care problems	.21	.26	.23
	(.44)	(.52)	(.47)
Car or transportation problems	.13	.19	.15
	(.33)	(.55)	(.43)
Housing problems	.09	.04	.07
	(.36)	(.27)	(.33)
Difficulty with computers	.55	.31*	.46
	(.69)	(.58)	(.66)
Daily Hassles (mean frequency during enrollment) [a]			
Flat tire	.13	0*	.07
	(.40)	(0)	(.32)
Argument with significant other	.44	.52	.47
	(.63)	(.75)	(.68)
Home appliance breakdown	.26	.17	.22
	(.59)	(.42)	(.53)
Traffic accident or detour	.64	.35**	.52
	(.53)	(.48)	(.53)
Crisis at work	.45	.65[†]	.53
	(.57)	(.62)	(.60)
Lost item (wallet, keys, school work)	.29	.19	.25
	(.60)	(.44)	(.54)
Trouble sleeping	.93	.63*	.81
	(.82)	(.78)	(.82)
Ill child or relative	.49	.46	.48
	(.64)	(.64)	(.63)
Flu or allergy symptoms	.59	.50	.55
	(.72)	(.67)	(.70)
Schedule conflicts	.80	.85	.82
	(.75)	(.71)	(.73)

[a] Mean frequency based on a scale ranging from 0="not at all" to 4="all of the time."
Standard deviations are shown below means in parentheses
***$p< .01$, **$p< .01$, *$p < .05$, † $p \leq .10$

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The sole difference in chronic strains between non-persisters and persisters, based on t-tests of mean differences, is that non-persisters have significantly ($p < .05$) less frequent (mean = .31, s.d. = .58) problems with computers than did persisters (mean =.55, s.d. = .59). There was no statistically significant association between the frequency of chronic strains and persistence in bivariate analyses (Appendix B).

The frequency of experiencing any of the daily hassles measured in this study was low for the sample, again averaging between "not at all" and "only on occasion," as was the case with chronic strains. The most frequently experienced daily hassles were schedule conflicts (mean = .82, s.d. = .73) and trouble sleeping (mean = .81, s.d. = .82), followed by flu or allergy symptoms (mean = .55, s.d. = .70), crises at work (mean = .53, s.d. = .60), and traffic accidents or detours (mean = .52, s.d. = .53). Non-persisters experienced significantly less frequent flat tires ($p < .05$), with none reported compared to a mean of .13 for persisters (s.d. =.40). Non-persisters also had less frequent ($p < .01$) traffic accidents (mean = .35, s.d. =.48) than persisters. In addition, non-persisters reported less frequent ($p < .05$) trouble sleeping (mean = .63, s.d. = .78) in contrast with persisters (mean = .93, s.d. = .82). However, non-persisters more frequently ($p < .10$) experienced crises at work (mean = .65, s.d. = .62) than did persisters (mean = .45, s.d. = .57). The bivariate correlation (Appendix B) between overall frequency of daily hassles and persistence was not significant.

On balance, these results provide little support for Hypothesis 1, that more stressors are related to non-persistence. Non-persisters did not differ from persisters, for the most part, in the stressors they experienced while enrolled at the college. Further, in bivariate correlations (shown in Appendix B), there are no significant relationships

between persistence and life events, chronic strains, or daily hassles. The differences in stressors that exist between persisters and non-persisters are not always in the expected direction of non-persisters having had more stressors: non-persisters were half as likely as persisters to have moved while enrolled as a student, and they experienced less frequent difficulty with computers, flat tires, traffic accidents or detours, and had less trouble sleeping than persisters did. Consistent with expectations, though, non-persisters were higher on some stressors: more non-persisters experienced a job loss and non-persisters had more frequent crises at work. So, although Hypothesis 1 is not supported as a whole, the results point to work-related stressors as a potential risk factor for non-persistence.

Table 3 shows the distribution of coping resources and coping strategies in the sample, and compares non-persisters and persisters on these variables. In regard to psychological resources, the sample mean on self-esteem was 2.39 out of 3 and non-persisters and persisters do not differ significantly on this measure. The sample means on the four academic self-efficacy factors also are fairly high within their range of 0 to 3: respondents' average level of confidence in classroom interaction is 2.36 (s.d. = .57), in time management is 2.42 (s.d. =.52), in formal evaluation (exams and papers) is 2.36 (s.d. =.59), and in helping other students is 2.23 (s.d. = .57). The only significant difference between non-persisters and persisters is that non-persisters have less confidence ($p < .05$) in their ability to be successful in formal evaluations (mean = 2.21, s.d. = .68) than do persisters (mean = 2.46, s.d. = .51).

In sum, Hypothesis 2, that greater personal/psychological resources will be related to adult student retention is supported only in regard to academic self-efficacy pertaining to formal evaluation. This is supported by the absence of bivariate correlations between

Table 3. *Distribution of Coping Resources and Strategies in the Study Sample*

	Persisters	Non-Persisters	All
Psychological Resources			
Self-Esteem (alpha = .825)	2.37	2.42	2.39
(Note: factors into 2 dimensions, positive & negative)	(.42)	(.45)	(.43)
Academic Self-Efficacy			
Classroom interaction (6 items, alpha = .88)	2.34	2.40	2.36
	(.58)	(.54)	(.57)
Time management (4 items, alpha =.84)	2.45	2.38	2.42
	(.53)	(.51)	(.52)
Formal evaluation (3 items, alpha = .72)	2.46	2.21*	2.36
	(.51)	(.68)	(.59)
Helping other students (2 items, alpha = .78, *r* = .65)	2.22	2.25	2.23
	(.57)	(.57)	(.57)
Social Resources			
Social Support			
Spouse support	3.89	3.06*	3.55
	(1.81)	(2.27)	(2.04)
Parents	3.50	3.35	3.44
	(2.16)	(2.14)	(2.15)
Children	2.44	1.88	2.10
	(2.35)	(2.34)	(2.35)
Friends	4.04	4.50*	4.22
	(1.62)	(0.93)	(1.40)
Employers	3.95	3.96	3.96
	(1.49)	(1.43)	(1.46)
Co-workers	3.96	4.02	3.99
	(1.48)	(1.41)	(1.45)
Social Integration on Campus (8 items, alpha = .84)	-.36	-.46	-.40
	(.81)	(.92)	(.85)
Academic Supports			
Academic guidance (8 items, alpha = .89)	1.19	1.09	1.15
	(.59)	(.89)	(.72)
Campus resources and services (8 items, alpha =.84)	-.25	-.29	-.27
	(.91)	(1.02)	(.95)
Campus is safe and welcoming (3 items, alpha = .79)	1.05	.86	.98
	(.83)	(1.16)	(.98)
Coping Strategies			
Passive/emotion-focused coping (21 items, alpha = .83)	1.39	1.46	1.42
	(.41)	(.44)	(.42)
Active/problem-focused coping (21 items, alpha = .86)	2.05	1.98	2.03
	(.36)	(.42)	(.39)

Standard deviations are shown below means in parentheses
***p< .001, **p< .01, *p < .05

persistence and self-esteem or three of the four dimensions of academic self-efficacy

(classroom interaction, time management, and helping other students), and the presence

of a relationship (*r* = .21, *p* < .05) between persistence and the dimension of academic

self-efficacy that reflects confidence in performing well in formal evaluation (taking exams and writing papers).

In regard to social resources (social support, social integration on campus, and academic supports) non-persisters and persisters are more alike than different, with only a few exceptions. Also, the bivariate correlation between persistence and total social support is not significant (Appendix B). In terms of social support during the time of enrollment at the college, the sample mean level of spouse support was 3.55 (s.d. = 2.04) out of 5. However, non-persisters' spouses were significantly ($p < .05$) less supportive (mean = 3.06, s.d. 2.27) than persisters' spouses (mean = 3.89, s.d. =1.81). The average level of social support from parents for the sample was 3.44 (s.d. =2.15), and from children it was 2.10 (s.d. = 2.10). Although non-persisters had less support from their spouses, they enjoyed greater support ($p < .05$) from friends (mean = 4.50, s.d. = 0.93) than did persisters (mean = 4.04, s.d. = 1.62), although the mean for both group was relatively high on a 5 point scale. Mean levels of support for the sample from employers was 3.96 (s.d. = 1.46) and from co-workers was 3.99 (s.d. = 1.45); there were no differences between non-persisters and persisters.

In regard to academic supports, the sample mean of academic guidance measure was 1.15 (s.d. = .72), closest to "somewhat important" on the scale ranging from -2 to 2. Campus services and resources, such as childcare, parking, library resources and career counseling, had a sample mean of -.27 (s.d. = .95). The importance of campus feeling safe and welcoming has a sample mean of .98 (s.d. = .98), indicating that this is "somewhat important" to the non-traditional, adult students in this sample. There were no significant differences between non-persisters and persisters on these measures. Further,

there was no significant correlation between persistence and total academic supports (Appendix B).

In sum, Hypothesis 3, that greater social support is related to student retention, is not supported. However, the results suggest that spousal support is an important resource for married students, and that low spouse support for a non-traditional student's educational endeavors is a risk factor for non-persistence.

Social resources on campus include the importance of feeling socially integrated, "fitting in," with students and faculty. Social integration had a sample mean of - .40 (s.d. = .85) on a scale ranging from -2 ("not important") to 2 ("very important"), between "somewhat unimportant" and "neutral." There was no significant difference between non-persisters and persisters on this measure. In addition, social integration on campus was not significantly correlated with persistence in bivariate analyses (Appendix B). Thus, Hypothesis 4, that greater social integration with others within the college setting will be associated with adult student retention, is not supported.

The final results reported in Table 3 are the distribution of the two types of coping strategies that respondents reported using during their enrollment at the college: passive, or emotion-focused, coping and active, or problem-focused, coping. The sample mean, out of a range of 0 to 3, for passive/emotion-focused coping was 1.42 (s.d. = .42), between "seldom" and "sometimes" in using this coping strategy. The sample mean was 2.03 for active/problem-focused coping, reflecting that respondents "sometimes" used active/problem-focused approaches to coping with stress. Once again, there were no significant differences between non-persisters and persisters on these measures.

Table 4 presents the bivariate correlations among coping resources and the coping strategies the respondents used during their time as students at the college. With regard to personal/psychological resources, self-esteem is negatively related ($r = -.41, p < .01$) to passive/emotion-focused coping, but it is not positively correlated with active/problem-focused coping. The first dimension of academic self-efficacy, confidence in classroom interactions, is both positively related ($r = .20, p < .05$) to active/problem-focused coping and negatively related ($r = -.23, p < .01$) to passive/emotion-focused coping. Confidence in performing well in formal evaluations is negatively related ($r = -.27, p < .01$) with passive/emotion-focused coping, but unrelated to active/problem-focused coping. Students' confidence in their ability to manage time demands and confidence in helping other students are unrelated to either type of coping, however.

Table 4. *Correlations Between Coping Resources and Coping Strategies*

Coping Resources	Active/problem-Focused Coping	Passive/emotion-Focused Coping
Personal/Psychological Resources		
Self-Esteem	.10	-.41**
Academic Self Efficacy		
Confidence in classroom interaction	.20*	-.23**
Confidence in time management	.11	-.16
Confidence in formal evaluation	.09	-.27**
Confidence in helping other students	.17	-.04
Social Resources		
Social Support Off Campus	.40**	.22
Academic Supports	.32**	.34**
Social Integration on Campus	.23**	.30**

***$p < .001$, **$p < .01$, *$p < .05$

Not all of the social resources measured are related to the two types of coping strategies in this study. Social support (from family, friends, employer and co-workers) is not related to either passive/emotion-focused coping or to active/problem-focused coping. Academic support is positively related to both problem-focused/active coping strategies

($r = .32$, $p < .01$) and emotion-focused/passive coping strategies ($r = .34$, $p < .01$).

Similarly, social integration on campus is positively related to both problem-focused/active coping strategies ($r = .23$, $p < .01$) and emotion-focused/passive coping strategies ($r = .30$, $p < .01$).

In sum, Hypothesis 5, that higher levels of coping resources are associated with problem-focused, active coping strategies (versus emotion-focused, passive coping strategies) is partially supported. Among personal/psychological resources, all measures are negatively related to passive/emotion-focused coping, as predicted. However, only academic efficacy related to classroom interaction is related to active/problem-focused coping. Social resources did not behave as expected for the most part. Social support from off-campus sources was not related to either type of coping, and academic supports were positively related to both kinds of coping, rather than being positively related to active/problem-focused coping and negatively related to passive/emotion-focused coping.

Table 5 reports the results of binary logistic regressions of persistence to graduation on stressors related to persistence, personal/psychological coping resources, and control variables related to persistence. The first model shows the results of regressing persistence on only the significant stressors and controls. The results indicate that, holding constant the influence of other variables, being fired from a job decreases a student's chances of graduation by 91%, (Exp $B = .09**$) compared with students who do not experience this life event.

Although only approaching significance ($p < .10$), with each increase in the frequency of having a crisis at work a student's likelihood of persistence declines by

nearly half, or 44%. Among the control variables, only the number of classes taken is a

significant predictor of persistence: with each additional class taken, chances of persisting

to graduation increase by 1.96 times, or 96 percent. Although non-persisters were older,

on average, than persisters in bivariate analyses, age is unrelated to persistence in these

models. Similarly, bivariate chi-square analysis indicated that more persisters than non-

persisters were lower income, yet when other variables are controlled, low income is not

a significant ($p < .05$) predictor of student persistence.

Table 5. *Logistic Regressions of Non-Traditional Adult Student Persistence on Associated Stressors and Personal/Psychological Resources (n = 134)*

	Model 1			Model 2			Model 3		
Variable	β	$SE\ \beta$	$Exp\ \beta$	β	$SE\ \beta$	$Exp\ \beta$	β	$SE\ \beta$	$Exp\ \beta$
Controls									
Age	-.02	.02	.98	-.02	.02	.98	.00	.03	.97
Lower Income	.65	.46	1.91	.64	.46	1.90	.82[†]	.49	2.28
Classes Per Term	.68**	.23	1.96	.67**	.23	1.95	.74**	.25	2.09
Stressors									
Fired from job	-2.45**	.91	.09	-2.44**	.91	.09	-2.16*	.95	.12
Crisis at work	-.57[†]	.33	.56	-.64[†]	.35	.53	-.70[†]	.37	.50
Psychological Resources									
Self-Esteem				-.35	.48	.71			
Academic Self Efficacy									
classroom interaction							-.77	.53	.46
time management							.25	.45	1.28
formal evaluation							1.48**	.49	4.39
in helping other students							-.60	.46	.55
Constant	-.35	1.17		.48	1.63		-2.08	1.76	
X^2		26.85***			27.39***			34.41***	
Df		5			6			9	

***$p < .01$, **$p < .01$, *$p < .05$, † $p \le .10$

In the second and third models shown in Table 5, personal/psychological

resources are added to the regression equation. Model 2 adds self-esteem but, controlling

for other variables, it is not a significant predictor of persistence, and other variables retain the same Beta and significance levels.

Model 3 adds the four dimensions of academic self-efficacy to the variables in Model 1. Of these, only confidence in performing well on formal evaluations is significantly related to persistence (Exp $B = 4.39$, $p < .01$). For each unit increase in confidence in formal evaluation performance, likelihood of graduating increases by more than four-fold, or 439%. In addition, the likelihood of persisting to graduation for people fired from their jobs is greater with increases in confidence in formal evaluation performance.

Table 6 reports the results of binary logistic regressions of persistence to graduation on stressors related to persistence, social coping resources, and control variables related to persistence. As shown also in Table 5, in Model 1 I regressed persistence on the significant stressors and controls. Model 2 adds the two types of social support associated with persistence, spouse support and friends support. However, neither is significant when controlling for the control and stressor variables related to persistence. Nonetheless, when these social support variables are added, the size of the effect of getting fired from a job and work crises increases slightly (just 2% for job loss and 11% for work crises), suggesting that social support (particularly spousal support, because of the positive direction of the relationship) helps to buffer the impact of these work-related stressors on students' persistence. Also, the number of classes taken per term becomes non-significant when these types of social support are held constant, suggesting that social support (particularly spousal support) may account in part for the relationship

between classes and persistence. That is, spousal support may enhance the likelihood of persistence and it is not taking more classes per se that makes for success.

Model 3 shown in Table 6 adds social integration to the control and stressor variables in the equation. When the influence of other variables are taken into account, social integration approaches significance ($p < .10$) and is negatively related to persistence ($B = -.23$), contrary to expectations. This result indicates that with each unit increase in the importance of social integration on campus, the likelihood of persisting to graduation decreases by 20% (Exp $B = .80$). Holding social integration constant does not change the relationships between persistence and being fired from a job or frequency of work crises.

In Model 4, the variables representing the four types of academic supports are added to the regression of persistence on the relevant stressor and control variables. Of these, only campus services and resources is significant ($p < .05$), and it is negatively related to persistence ($B = -.59$). When the academic support variables are entered into the equation, the negative effects of job loss and work crises increase, indicating that, although the effects are small (just 2% for job loss and 8% for work crises), academic supports help to ameliorate the impact of these stressors on persistence.

Also in Model 4, when academic supports are taken into account, lower income approaches significance ($B= .82, p < .10$), suggesting that, absent the role of academic supports, lower income students are more than twice as likely (Exp $B = 2.26$) to persist to graduation as students in middle and higher income levels.

Table 6. *Logistic Regressions of Non-Traditional Adult Student Persistence on Associated Stressors and Social Resources (n = 134)*

	Model 1			Model 2			Model 3			Model 4		
Variable	β	SE β	Exp β	β	SE β	Exp β	β	SE β	Exp β	B	SE β	Exp β
Controls												
Age	-.02	.02	.98	-.03	.03	.97	-.02	.02	.98	-.02	.02	.98
Lower Income	.65	.46	1.91	1.02	.65	2.76	.69	.46	1.99	.82†	.48	2.26
Classes Per Term	.68**	.23	1.96	.48	.30	1.62	.75**	.25	2.13	.77**	.26	2.17
Stressors												
Fired from job	-2.45**	.91	.09	-2.67**	1.03	.07	-2.47**	.92	.09	-2.66**	.96	.07
Crisis at work	-.57†	.33	.56	-.79*	.41	.45	-.61	.34	.55	-.75*	.35	.48
Social Resources												
Social Support												
Spouse				.96	.70	2.61						
Friends				-.40	.69	.67						
Social Integration							-.23†	.25	.80			
Academic Supports												
Guidance										.11	.35	1.12
Services & Resources										-.59*	.30	.56
Feeling welcome										.25	.24	1.29
Constant	-.35	1.17		.46	1.58		-.67	1.29		-.89	1.24	
X^2		26.85***			20.86***			27.65***			31.30***	
Df		5			7			6			8	

***$p< .01$, **$p< .01$, *$p < .05$, † $p ≤ .10$

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In sum, Hypothesis 6, that higher levels of coping resources will weaken the relationship between stressors and adult student attrition is partially supported insofar as one personal/ psychological resource, academic self-efficacy about test taking and paper writing, and social supports and campus resources and services appear to reduce the likelihood of drop out for students who experience getting fired from their job or more frequent work crises. Other personal/psychological resources, social integration, and other academic supports in the study do not appear to buffer students from these significant stressors.

To test Hypothesis 7, that active/problem-focused coping strategies reduce the association between stressors and adult student attrition more than emotion-focused/passive coping strategies, I conducted binary logistic regressions of persistence on the significant stressors (fired from job and work crises) on the types of coping variables (passive/emotion-focused and active/problem-focused) and the relevant control variables. Model 1 repeats the basic regression equation presented earlier in the first models of tables 5 and 6 of persistence on stressors and control variables. In Model 2 I add passive/emotion focused coping to the regression equation. The results indicate that this type of coping strategy reduces the likelihood of persisting to graduation ($B = -1.08$, $p < .05$) in that for each unit increase in passive coping, chances of persistence decline by 66% (Exp $B = .34$). In addition, the effect of getting fired on persistence decreases when passive coping is controlled, though only by 1%. However, the relationship between work crises and persistence becomes non-significant when passive coping

Table 7. *Logistic Regressions of Non-Traditional Adult Student Persistence on Associated Stressors and Coping Strategies (n = 134)*

Variable	Model 1			Model 2			Model 3			Model 4		
	β	*SE β*	*Exp β*	*β*	*SE β*	*Exp β*	*β*	*SE β*	*Exp β*	*B*	*SE β*	*Exp β*
Controls												
Age	-.02	.02	.98	-.02	.02	.99	-.02	.02	.98	-.02	.03	.98
Lower Income	.65	.46	1.91	.74	.47	2.10	.66	.46	1.93	.80†	.47	2.23
Classes Per Term	.68**	.23	1.96	.85***	.26	2.35	.65**	.24	1.91	.83**	.26	2.28
Stressors												
Fired from job	-2.45**	.91	.09	-2.58**	.92	.08	-2.45**	.91	.09	-2.59**	.93	.08
Crisis at work	-.57†	.33	.56	-.49	.34	.62	-.57†	.34	.57	-.45	.35	.64
Coping Strategies												
passive/emotion-focused Coping				-1.08*	.52	.34				-1.40*	.59	.25
active/problem-focused Coping							.19	.52	1.21	.77	.59	2.16
Constant	-.35	1.17		.60	1.30		-.63	1.40		-.30	1.47	
X^2		26.85***			31.38***			26.99***			33.15***	
Df		5			6			6			7	

***$p < .01$, **$p < .01$, *$p < .05$, $\dagger$ $p \leq .10$

is controlled. This suggests that in the absence of engaging in passive coping, frequency of work crises would not be related to persistence. Also, taking passive coping into account increases the size and strength of the relationship between classes taken per term and persistence (Exp B changes from 1.96 to 2.35). In other words, were it not for students engaging in passive coping, taking more classes per term would be associated with a 39% greater likelihood of persistence than it does alone (controlling for significant stressors and other control variables).

In Model 3, reported in Table 7, I add active/problem-focused coping to the regression of student persistence on significant stressor and control variables. Active coping is not significantly related to persistence, all else equal. It also does not substantively change the relationships between persistence and the other variables in the basic model (Model 1).

In Model 4, Table 7, I enter both passive coping and active coping to the basic regression equation. Again, passive coping is negatively related to persistence (B = -1.40, $p < .05$) and active coping is not significantly related to persistence. However, when we control for the effects of both variables, the negative impact of engaging in passive coping increases such that for each unit increase in passive coping, likelihood of graduating decreases by 75% (Exp B = .25). That is, in the absence of using active/problem-focused coping strategies, passive coping increases the risk of students dropping out of college. These results are consistent with Shields' (2001) findings that passive coping is associated with non-persistence among college students.

The introduction of both passive and active coping variables does not produce substantively different results in regard to stressors and control from those of Model 2,

with just passive coping included, except that lower income approaches significance (p <.10). This result hints that, holding the effects of coping constant, being lower income (rather than middle or higher income) is associated with a 223% greater likelihood (Exp B = 2.23) of graduating; this reflects an increase of 24% in likelihood of persisting over that in the basic model (Exp B = 1.96) that does not control for coping.

In sum, Hypothesis 7, that active/problem-focused coping strategies will reduce the association between stressors and adult student attrition more than emotion-focused/passive coping strategies is not supported. Active coping was not related to persistence in this sample and did not affect the relationship between the significant stressors (job loss and work crises) in this sample. However, this result must be interpreted with caution because the sample mean for passive coping was relatively high (2.03 out of 3), and therefore there may be a "ceiling effect" at work. Although the results do not show a positive relationship between active coping and persistence, they clearly indicate that passive coping inhibits persistence. Passive coping may exacerbate the effect of work crises on persistence, as evident that when we control for passive coping, crisis at work is not significantly related to attrition. So, neither active nor passive coping reduce the association between stressors and attrition, in contrast to expectations (neither is positively related to persistence, controlling for other variables). Instead, passive coping appears to reduce persistence, all else equal.

Summary of Findings

H1: Hypothesis 1, that more stressors are associated with student attrition, is not supported as a whole. More stressors are not related to student attrition. However, the results point to work-related stressors as a potential risk factor for non-persistence.

H2: Hypothesis 2 is partially supported; one dimension of academic self-efficacy (confidence in performance on formal evaluations, such as exams and papers). Self-esteem is not related to persistence in bivariate correlations, and there were no differences between persisters and non-persisters in self esteem.

H3: Hypothesis 3, that greater social support is related to student retention, is not supported. However, the results suggest that spousal support is an important resource for married students, and that low spouse support for a non-traditional student's educational endeavors is a risk factor for non-persistence.

H4: Hypothesis 4, that greater social integration with others within the college setting will be associated with adult student retention, is not supported.

H5: Hypothesis 5, that higher levels of coping resources are associated with problem-focused, active coping strategies (versus emotion-focused, passive) coping strategies, is partially supported. Personal/psychological resources are negatively related to passive/emotion-focused coping. Only academic efficacy related to classroom interaction is related to active/problem-focused coping. Social support from off-campus sources was not related to type of coping, and academic supports were positively related to both kinds of coping, rather than being positively related to

active/problem-focused coping and negatively related to passive/emotion-focused coping.

H6: Hypothesis 6, that higher levels of coping resources will weaken the relationship between stressors and adult student attrition is partially supported: the dimension of academic self-efficacy reflecting confidence in test taking and paper writing, social supports, and campus resources and services appear to enhance the likelihood of persistence for students who experience job loss or more frequent work crises. Other coping resources in the study do not appear to buffer students from these significant stressors.

H7: Hypothesis 7, that problem-focused/active coping strategies will reduce the association between stressors and adult student attrition more than emotion-focused/passive coping strategies is not supported. Neither active nor passive coping reduce the association between stressors and attrition. Instead, passive coping appears to reduce persistence, all else equal, increasing (rather than decreasing) the association between persistence and getting fired from a job and persistence and work crises.

Findings Related to Demographic Characteristics

In this study, the control variables used were *age, lower income, and classes taken per term* (no other sociodemographic characteristics were associated with persistence). Controlling for other study variables, age was not a significant predictor of persistence. Being lower income was related to greater persistence once academic supports and coping strategies were held constant. Finally, taking more classes was positively related to persistence.

CHAPTER V

DISCUSSION AND CONCLUSION

The purpose of this study was to identify commonalities or patterns related to risk factors for non-persistence (versus persistence) among non-traditional adult undergraduate students by examining differences between non-persisters, students who did not graduate, and persisters, those who did, at a small private mid-Atlantic college. The study was guided by existing literature about risk factors for attrition among college students, traditional and non-tradition to guide the study, and organized those factors using the stress and coping model as a conceptual framework. The results point to several differences between persisters and non-persisters that warrant further investigation and that may suggest ways that colleges and universities can better support non-traditional adult undergraduate students.

Stressors

In contrast with expectations, having a greater number of stressors was not related to greater likelihood of attrition (non-persistence) among the non-traditional adult students in this sample. There were few differences between persisters and non-persisters in the numbers and types of life events, chronic strains, and daily hassles they experienced, however, work-related stressors were related to attrition, as more non-persisters experienced job loss and had more frequent work crises than persisters. In this sample, the majority of these non-traditional adult students were employed full-time, in their mid-thirties, with incomes over $40,000. A job loss for these students might understandably be devastating, particularly in light of other responsibilities that many of these mid-life adults had, such as children and spouses. Similarly, it is easy to understand

how contending with frequent work crises might interfere with academics for students who are gainfully employed, and relying on their jobs to maintain established households. It may be more important for these adult students to maintain job security than to garner any potential gains from a degree. Some non-traditional students may have more to lose than to gain from a degree if pursuing a degree threatens their livelihood.

Work-related stressors are what Cross (1981) refers to as situational barriers to completing higher education that arise from life circumstances. Obviously, these job-related challenges lie outside of the college environment, and Bean and Metzner's (1985) research demonstrates that external environmental variables can contribute to non-persistence among non-traditional adult undergraduate students. Specifically, while a supportive external environment can compensate for weak academic support, strong academic support cannot compensate for a non-supportive external environment in students' lives. So, particularly among non-traditional adult students with a household to support, losing a job might lead to attrition, regardless of the amount of academic support available. Chronic work crises that compete with these adult students' time and energy may take precedent over academic studies because of their more immediate importance to the wellbeing of the non-traditional students and their families. Although such employment-related risk factors are external environmental barriers to persistence, out of the control of the academic institution, there may be some potential supports that colleges can offer to help students with these stressors, as I will discuss later.

Coping Resources

Following the stress and coping model, in this study I expected that the more coping resources, psychological and social, that students had, the more likely they would be to persist and the less likely that stressors affecting them would result in attrition. However, there were few differences between persisters and non-persisters in most coping resources, although a few specific resources emerged as especially important.

Among the personal/psychological resources, self-esteem and three of the four dimensions of academic self-efficacy were not directly related to persistence. The key psychological resource that differentiates persisters and non-persisters is that non-persisters had less confidence in their ability to perform successfully in formal academic evaluation (exams and writing papers). Cross (1981) found that adult students often question their ability to pursue a higher education. Fears of inadequacy are common among adult students. Rusty study habits, memory loss, and time pressures can lead to loss of confidence or low self-esteem (Cleugh, 1972) that in turn can lead to dropout. In open-ended comments at the conclusion of the survey, one non-persister respondent stated that he/she experienced an "anxiety attack during a test." Another wrote, "I had difficulty grasping concepts in one of my classes, so I dropped out."

It is unclear why non-persisters in this study have less confidence in their ability to perform effectively on formal evaluation tasks, but it seems reasonable that prior experience, opportunities for practice, and resulting feedback may play a role. Pearson (2004) compared the attrition rates of adult students with prior college course work and newly entering adult students and found that lack of prior college experience was related both to lower levels of academic self-confidence and greater risk of drop out compared

with students who were returning to college. This study did not control for previous college experience due to erroneous responses concerning pervious education (described in Chapter III), but the role of experience in building non-traditional adult students' confidence in formal evaluation points to potential institutional interventions that may reduce attrition related to this factor, as I discuss below.

Among social resources, only one type of coping resource was associated with persistence: social support from a spouse or significant other. Among students who had a relationship with a spouse or partner, non-persisters received significantly lower levels of social support from their partners. While non-persisters had greater support from friends than did persisters, support from this source perhaps does not compensate for a lack of support from a student's significant other. And, although taking more classes was related to persistence, this relationship disappeared once spousal support was taken into account. This suggests that when students enjoy greater support from their significant others, it enables them to take more courses and progress through their program of study.

That social support from family plays an important role in retention of undergraduate adult students is well established in the literature (Cross, 1981; Bean & Metzner, 1985; Tinto, 1993; Graham & Donaldson, 1996; McGivney, 1996, Kasworm, 1995, 1997; Dalrymple, 2000). This was reflected in the remarks offered by one of the persisters in the study who wrote, "My employer and my family were very supportive which enabled me to stay in school and finish my bachelor's degree." The results of this study suggest that not only is support from a significant other a benefit to non-traditional students, but also that low spousal support for the undergraduate adult student's educational endeavors is a risk factor for non-persistence.

One of the surprising results in this study was that social integration on campus was not related to persistence. Theory and research on traditional college students makes clear that social integration is a critical factor in undergraduate retention (Astin, 1984; Bean, 1985; and Tinto, 1993). Social integration on campus for non-traditional adult students seems to hinge upon classroom experiences. In a test of whether Tinto's model of retention for traditional students could explain retention (versus dropout) among non-traditional adult undergraduate students, Ashar and Skenes (1993) found that social integration within the college classroom was related to attrition and retention.

Although social integration on campus was not a significant predictor of persistence in this study, the classroom experience mattered to the students. Persisters rated the importance of "knowing classmates by name" significantly higher than did non-persisters (mean of .60 versus -.13, $p < .001$). One of the persisters noted that "having other adults in classes who were also working full time jobs" was helpful.

The importance of the classroom experience for persisters may reflect the greater number of classes taken per term by persisters, compared with non-persisters, as taking more classes provides more opportunities to connect with classmates. Donaldson, Graham, Kasworm, and Dirkxm (1999) established that the classroom serves as the place where social integration takes place for non-traditional adult undergraduate students, and they found that social integration was directly connected with retention among adult undergraduate students. Institutions may be limited in the extent to which they can foster the social integration of non-traditional adult students into the college community, particularly among those who take only one or two classes at a time. Still, there are some potential ways to encourage connections among students that I offer later in this chapter.

Coping Strategies

The results of this study concerning the relationships between coping resources (psychological and social) and coping strategies are mixed. Greater *psychological* resources (except the dimension of academic self-efficacy related to time management) were associated with less passive/emotion-focused coping, as expected. However, they were not associated with more active/problem-focused coping. Only academic self-efficacy related to classroom interactions was positively related to active/problem-focused coping. Nonetheless, in this study active coping is not a predictor of persistence, but passive coping is a predictor of attrition. Looking at this relationship another way, there may be indirect relationships between self-esteem and persistence and between academic efficacy related to classroom interaction and persistence that were not evident in bivariate correlations. These indirect relationships, in addition to the direct relationship between academic self-efficacy related to formal evaluation, suggests that three key psychological resources help students to persist: self-esteem, confidence in classroom interactions, and confidence in ability to perform successfully in formal evaluations. It may take time and experience for some students to develop confidence in their academic abilities, as explained by one persister, "I became a more confident person; able to express myself better. I also realized that I had hidden talents."

The relationships in this study between *social* coping resources and coping strategies met some expectations and defied others. As anticipated, greater social support, social integration, and academic supports were associated with more active/problem-focused coping. Contrary to expectations, though, greater social integration and academic supports also were related to more passive/emotion-focused coping. This finding

highlights the nature of coping; it is not a continuum from passive to active along which people fall. Most people use both active and passive coping strategies in dealing with stressors. Although not the case here, research suggests that active/problem-focused coping is more effective in reducing the negative effects of stressors (Pearlin, 1989; Shields, 2001; Thoits, 1995). In the case of these social resources, it may be that more resources lead to using more forms of coping such that people engage in both more active and more passive coping approaches. The key among the non-traditional adult students in this study is the interference of passive coping with persistence.

In keeping with the stress and coping model, higher levels of coping resources were expected to weaken the relationship between stressors and adult student attrition. Given that the only types of stressors related to non-persistence in this study related to students' employment, only a limited test of this hypothesis was possible. The findings pertaining to psychological resources suggest that greater academic self-efficacy in the area of formal evaluation makes it slightly less likely that students who lose their job will drop out. And, results concerning social resources suggest that were it not for social support from spouses/partners, work-related stressors would be even more likely to contribute to attrition. But, the effect of job loss on attrition is substantial enough that it is unlikely than any coping resource, or combination of them, would eliminate the risk of attrition from this stressor. Being fired from a job is a major blow that very few students in this study overcame to persist to graduation.

Finally, I expected that active/problem-focused coping would be more effective than passive/emotion-focused coping in reducing the effect of stressors on attrition. This was not the case, at least in regard to the significant stressors in this study. Passive coping

is associated with greater likelihood of attrition in the face of job loss and frequent work crises, but active coping is not related to improved probability of persistence to graduation under these circumstances. Still, though, these findings point to an opportunity to strengthen students' chances of graduating by helping them to steer away from passive coping. I discuss several potential approaches that institutions might use for accomplishing this aim later in this chapter.

It is important to note that both coping resources and coping strategies may operate very differently in regard to different stressors and student persistence. There were few differences between the persisters and non-persisters in the stressors measured in this study. However, only a limited number of and types of stressors were studied, and coping resources and strategies may be related quite differently to different stressors and their affect on non-traditional adult student persistence.

Limitations

This study is limited in several ways. First, it relies on a somewhat unique student population. The sample comes from a small, Central Pennsylvania private college, and draws students who can afford the tuition and who are career-focused. These students had moderately high household incomes, in contrast to most non-traditional students who are lower income (Jones &Watson, 1990). Consequently, their motivations for getting a degree may be different from the typical non-traditional student, and the stressors that they experience and the coping resources that they bring to bear on those stressors may vary from those of other non-traditional adult students, as past research makes clear that socioeconomic status is related to stress and coping (Mirowsky & Ross, 1989). Future research on non-traditional students should take into account the variations in adult

student populations and strive to identify unique risk factors and effective supports accordingly.

Another shortcoming of this study is the small sample size that prohibited more in depth analyses. Higher education institutions with larger non-traditional adult student populations may be better positioned to collect data on the factors included in this study. Sociodemographic and retention data on adult students at the national level are gathered by the National Center for Education Statistics (NCES) in the U.S. Department of Education, but more context specific data about the challenges and experiences of non-traditional students from representative samples are needed to better understand risk factors for non-persistence.

A third limitation is that there are many other potential stressors and student characteristics that are not accounted for in this study. Measures of stressors here were based on existing instruments designed to inventory typical stressors in the general population, and these are not exhaustive of the stressors that might confront non-traditional adult students. Future research that includes a wider array of stressors should examine the ways that different types of coping resources operate in relation to them and persistence. Also, a host of contextual characteristics of students' lives may impinge upon their persistence. In this study I attempted to explore many of them, but no study could account for them all. In light of the findings here concerning the impact of work-related factors, future research might examine how the specific contexts of students' employment affect attrition. Similarly, prior college experience may be related to the key psychological resource of confidence on performance on formal evaluations, but I could not control for it due to a flaw in the questionnaire design that resulted in respondents

misinterpreting an item about their previous education and consequently providing erroneous information.

Although this study includes limitations, as all studies do, it makes several important contributions to the literature on non-traditional adult students. First, by investigating this student population this study adds to the limited knowledge currently available. According to Donaldson & Townsend (2007) only 41 (1.27%) of 3,219 articles published between 1990 and 2003 in seven peer-reviewed journals of higher education focused on adult undergraduate students. Second, this study identifies work-related stressors as a major risk factor for non-traditional students. Third, the study pinpoints academic self-efficacy in formal evaluation and spousal support as key coping resources. Fourth, this study highlights the detrimental impact of passive/emotion-focused coping on student persistence. Finally, the results of this study point to opportunities for potential interventions by higher educational institutions to enhance their likelihood of persisting to graduation.

Recommendations for Future Research

Some of the findings, and non-findings, of this study warrant further investigation. For instance, social support from a spouse or partner appears to play an important role in student persistence, but it is not clear how or why this is the case. Future research might probe the role that this type of relationship plays in adult students' academic lives: in what ways does support from this source enhance persistence? Is this support instrumental in that spouses/partners free up students' time by taking on more household chores? Is the support socio-emotional in the form of encouragement and empathy? Is the support financial with spouses accepting more responsibility for support

of the household while the student is in school? A more in-depth understanding of how spousal/partner support makes a difference is needed to help students capitalize on this important resource.

Another area in which additional research is needed to inform programs to support non-traditional adult students is in the skill sets that contribute to student success. The results of this study highlight the importance of academic self-efficacy in formal evaluation, reflecting self-confidence in test taking and writing papers, both of which are academic skills developed through experience and practice (Pearson, 2004). What are the levels of these skills associated with increased chances of persistence? What "types" of non-traditional adult students come into higher education with an adequate skill set in this area, and what students do not? How are these academic skills most effectively developed and strengthened in non-traditional college students?

Also, while not a significant predictor of persistence in this study, it seems likely that confidence in time management abilities is helpful to students completing a degree program, though that may be more of a skill that is exercised than a psychological resource and so it may work differently than other kinds of psychological resources. Future research might examine what skills, such as time management, test taking, and writing, are most related to persistence so that academic programs serving non-traditional adult students can develop means to assist students in strengthening these skills so that they are prepared to be successful in their academic endeavors.

In addition, research is needed to explore how social integration in the classroom is related to adult undergraduate student retention. What does social integration in the classroom mean? How does it impact retention? Are there specific tasks and/or

exercises that can facilitate social integration in the classroom? Can faculty incorporate social integration in the classroom as part of the curriculum?

Implications for Policy and Practice

Many factors that influence persistence among non-traditional adult students are beyond the control of colleges and universities. Nonetheless, a better understanding of the challenges faced by these students may inform new and more effective academic support efforts to increase the likelihood of persistence to graduation. The results of this study point to several areas that institutions might address to support adult undergraduate student persistence. They involve preparing students for the challenges they may encounter, making them aware of the resources available to contend with them, and helping them develop skills and plans for coping before problems arise.

In the sample studied here, job-related stressors were a risk factor for attrition. Although a job loss may be an insurmountable challenge for many students, more students who experience this life event might be able to continue in their academic programs with financial support from the institution and educational loans. Making students aware of the financial supports available to them, such as financial aid and scholarships, offering campus employment such as work-study, and the maintenance a job bank in collaboration with regional employers might offer a safety net to students who would otherwise drop out of school. While these sources of financial assistance are unlikely to replace the income of full-time employment for non-traditional adult students who lose their livelihood, they may provide short-term assistance that enables them to complete their studies.

For students who face ongoing work crises, there may be little an institution can do. However, it might be worthwhile for higher education institutions to consider systematically fostering employer support for their adult students. For example, when a non-traditional student enrolls, the institution might send a letter (with the student's permission) to the student's employer congratulating them on having one of their employees pursuing a degree and lauding the role of work place support. Employers of students might be included in distribution of institutional publicity that occasionally highlights an employer who is supportive of an employee enrolled as a student at the institution. Such efforts might be good for retention and have recruitment benefits as well. In addition to cultivating employer support, academic programs serving non-traditional adult students might make specific efforts to help students garner the support they need. Advisors might assist students in pinpointing the types of support they need from their employer and co-workers and in devising a plan for asking for such support.

In regard to coping resources, although academic resources were not directly related to persistence, they were not unimportant in students' experiences. One persister wrote, "My advisor was super; the Records Office was great; the Library staff was friendly and supportive; and the professors knew their subject matter." In addition to traditional academic resources available to students such as advising, programs serving adult students might offer mechanisms for students to develop confidence in skills that the students in this study indicated are important: test taking and writing papers. Institutions could offer on-site skill building workshops, made available upon enrollment and before students start classes that include practice and feedback in testing and writing. Given the limited time and multiple demands that non-traditional students often must

navigate, providing resources for skill building online, such as practice tests, might be useful, as well. Ensuring that campus services, such as writing centers, are available when non-traditional students can access them, predominantly evenings and weekends, and have online collaboration capability might extend their utility for adult students. Providing students with models, such as sample papers of various types and sample essay question responses, with practice writing and test-taking, and with feedback at the outset of their academic program may develop confidence, skills, and thereby greater likelihood of persistence. An option might be developing a specific course for new entry or re-entry adult undergraduate students geared toward developing time management skills, learning proper academic citation when writing papers and providing a safe environment to address fears and concerns would be especially useful for adult students and the institution in terms of retention (Siebert & Karr, 2003).

In addition, institutions that serve the adult undergraduate student population and do not offer Prior Learning Assessment (PLA) may want to consider this option. A seven year study was conducted by the Council on Adult and Experiential Learning (CAEL, 2010) among 48 different types of colleges and institutions that offered PLA. What was revealed was that twice as many PLA students earned postsecondary degrees as had non-PLA students. PLA administrators reported that PLA is a powerful motivator that boosts self-esteem and self-confidence by validating students' existing skills and knowledge (CAEL, 2010). Given the results of this study, boosting self-esteem and self-confidence in academic self-efficacy for adult undergraduate students is a requisite for student success.

The crucial role of spousal/partner support may seem beyond the scope of institutional intervention, but it would be a missed opportunity to overlook it. There are a number of things that academic programs serving non-traditional students might do to help them make the most of this resource. Early on, perhaps through orientation or initial advising, they can make students aware that family support is important to their success and encourage them to recruit the support of significant others. Students also may benefit from some coaching or tips from advisors and current students on talking with family members and asking for the support they need, explaining changes in their availability to children, for instance, and plotting a course for dealing with changes in family dynamics that they are likely to encounter. Offering students tools, such as a written template of a "family contract" regarding the student's educational endeavors that spells out changes, expectations, goals, and timelines for spouses/partners and children, if relevant, may give students a vehicle for talking with their significant others about their educational plans.

Even though social integration on campus was not a significant predictor of attrition in this study, the students in the sample who persisted to graduation reported that knowing classmates by name was important to them, and they took more classes which gave them more opportunities to connect with other students. Since non-traditional students may have considerable job and family responsibilities, it seems impractical to mandate that they take a certain number of courses per term as a way to foster integration. Instead, academic programs serving non-traditional adult students might explore other ways to help them forge relationships with peers. One way of doing this might be a variation on a cohort model in which, regardless of how many courses students take per term, during their first year they will have at least one course each term

with the same core group of students, ideally including some non-traditional students like themselves. These might be English, science, and math courses that virtually all students are required to take. So, if a student takes only one course each term, it is the required core course. And, if a student takes four courses per term, he or she still retains contact with a core group. Structuring a few courses in this way may ground adult students with a connection to others and a core of peer support that may improve retention (Harris, 2006/2007; Murray, 2010).

The literature on non-traditional adult students makes clear that they face competing demands and stresses because of life circumstances that are different for them than for traditional undergraduates (Cross, 1981; Kasworm, 2003; Murray, 2010; Pearson, 2004). Helping non-traditional adult students to cope effectively with these circumstances could have a substantial impact on persistence. In this study students who engaged in more frequent passive/emotion-focused coping were at greater risk of drop out. Coping "styles" are not easily changed, as they are the product of life-long experiences and behaviors (Folkman & Lazarus, 1985; Thoits, 1995). However, academic programs serving non-traditional students might reduce passive/emotion-focused coping around school related stressors by acknowledging and alerting students to the special challenges of non-traditional students and the likelihood that they will need to deal with various stresses, and that they can do so successfully as others before them have. In this way, students will not be surprised when challenges arise and they will know that their experience is typical, and surmountable. Through orientation, advising or a peer mentoring program, students could be helped to mobilize their social support resources,

identify and access academic resources, and devise active/problem-focused plans and means of implementing them.

The potential interventions offered above require that institutions recognize that non-traditional adult undergraduate students have some different needs relative to those of traditional students, and that they make a concerted effort to enhance the retention of this growing population of students. This may mean fostering greater awareness among faculty and staff of the needs of adult learners and promoting a shift in the academic culture within the institution.

Conclusions

Enrollment of non-traditional adult undergraduate students grew 186 percent between 1970 and 2005 and is projected to grow another 20 percent by 2016 (Noel-Levitz, 2008). According to the University Continuing Education Association (2006), adults 24 and older represent 43% of all undergraduate students. However, the attrition rate for this student population is higher than that of traditional students. The traditional student attrition rate is 43.2% at two-year colleges compared to adult undergraduate student attrition at 56.6%. At four year colleges attrition for the traditional student is 28.2% compared to the adult undergraduate student rate of 49.9% (Noel-Levitz, 2008). As a result, the attrition rate of non-traditional adults' students demands that we begin to conduct research on this population to get a better sense of who they are and what their needs are. Yet, as Donaldson and Townsend (2007) report, between 1990 and 2003, only 1.27% of the literature from the top seven peer-reviewed higher education journals focused on non-traditional adult undergraduate students.

Non-traditional adult college students have a different set of social contexts in their lives from those of traditional students, and often different responsibilities, such as jobs and families, that compete with academic demands. Further, not all non-traditional adult student populations are the same; in this study, many students had moderately high incomes and full, steady employment; however non-traditional adult students at many other institutions are lower income and seeking a degree to help them get employment (Pusser, et al., 2007). For fully employed non-traditional students, work-related stressors may pose serious challenges to completing a degree program. And, although social integration on campus may be important to non-traditional adult undergraduate students, it is centered primarily in their classroom experiences rather than in broader involvement on campus. Institutions serving these students must know their audience and innovate supports to meet those needs, such as finding ways to foster social integration within the classroom, to help students hone their academic skills and develop confidence in their ability to succeed. Enhancing non-traditional student persistence may mean new initiatives to facilitate institutional adjustments to a changing student population, such as development of faculty and staff understanding the different life contexts and needs of adult students. Public relations efforts with employers of students, and outreach to non-traditional adult students with resources may help them garner support from their families and co-workers.

In addition to institutions of higher education taking strides to develop strategies and programs specifically for the adult undergraduate student, there is an imperative for a national agenda concerning this population among policymakers. Current state funding and resources for postsecondary education need to better account for the growing

population of non-traditional adult students and be adjusted so that programs for these students adequately serve their needs. Accomplishing comprehensive state-wide strategic higher education plans that address the needs, issues, and barriers faced by non-traditional adult students will likely require collaborative development by representatives from state government, educators (faculty and administrators), educational foundations, and relevant non-profits organizations. Other stakeholders that benefit from a more skilled/educated workforce, such as business and community leaders and associations, should also participate in planning processes. In keeping with the recommendations of the Council on Adult and Experiential Learning in Partnership with the National Center for Higher Education Management Systems (2008), a policy agenda related to non-traditional adult students in higher education would address curricular programs, needs assessment, and best practices, as well as outcomes evaluation for postsecondary education as they relate to the non-traditional adult undergraduate student. The staggering attrition rate of non-traditional adult students signals that the way we serve adult learners needs to change. This study points toward changes that help non-traditional adult students balance the competing demands they face, contend with the stressors they confront, develop and capitalize on the resources required to cope as a non-traditional student, and implement effective coping strategies to support them in persisting in working toward their educational goals.

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Appendix A. Description of Study Variables

Variable	Descrion	Coding	Reliability
Stressors			
Life Events	Spouse's death Divorce Marriage separation Jail term Death of close relative Injury or illness Marriage Fired from job Marriage reconciliation Moving	Did Respondent (R) experience any of these life events during the time of enrollment at the college: Yes = 1 No = 0 for each item	n/a
Chronic Strains	Not enough time to meet obligations Conflicts with family Health problems Conflicts at work Separation from people you care about Cash-flow problems Child or elder care problems Car or transportation problems Housing problems Difficulty with computers	How often R experienced each during enrollment at the college: Not at all = 0 Only on occasion = 1 Frequently = 2 All of the time = 3	n/a
Daily Hassles	Flat tire Argument with significant other Home appliance breakdown Traffic accident or detour Crisis at work Lost item (wallet, keys, school work) Trouble sleeping Ill child or relative Flu or allergy symptoms Schedule conflicts	How often R experienced each during enrollment at the college: Not at all = 0 Only on occasion = 1 Frequently = 2 All of the time = 3	n/a
Personal/Psychological Resources			
Self-Esteem	Rosenberg Self-Esteem Scale On the whole, I am satisfied with myself. At times I think I am no good at all. *R* I feel that I have a number of good qualities. I am able to do things as well as most other people. I feel I do not have much to be proud of. *R*	R's level of agreement with each statement: Strongly disagree=0 Disagree = 1 Agree= 2 Strongly Agree = 3	.83
Academic Self-Efficacy			
Classroom Interaction	Participating in class discussions Answering questions in a class with 30+ students Answering questions in a class with less than 15 students Asking a professor in class to review material covered that you don't understand Talking to a professor privately Challenging a professor's opinion	R's level of confidence in doing each: Not confident at all = 0 A little confident = 1 Somewhat confident = 2 Very confident = 3	.88

Time Management	Balancing school and family responsibilities Completing tasks on time Managing financial responsibilities of school and home Managing time demands	R's level of confidence in doing each: Not confident at all = 0 A little confident = 1 Somewhat confident = 2 Very confident = 3	.84
Formal Evaluation	Taking "objective" tests (i.e., multiple choice, true/false, matching) Taking essay tests Writing a high quality paper	R's level of confidence in doing each: Not confident at all = 0 A little confident = 1 Somewhat confident = 2 Very confident = 3	.72
Helping Other Students	Helping other students with their studying Explaining a concept or idea to another student	R's level of confidence in doing each: Not confident at all = 0 A little confident = 1 Somewhat confident = 2 Very confident = 3	.78

Social Resources

Social Support	Your spouse or significant other Your parents Your children Your friends Your employer Your co-workers	Level of support R felt from each during enrollment: Very unsupportive = 0 Somewhat unsupportive = 1 Neither supportive nor unsupportive = 2 Somewhat supportive = 3 Very supportive = 4	n/a
Social Integration	"Fitting in" on campus "Fitting in" in class Belonging to a study group Classmates known by names Friendships with other students Social contacts with faculty Getting involved in intramural sports Getting involved in college-sponsored clubs	Importance to R of each: Not at all important = 0 Somewhat unimportant = 1 Neutral = 2 Somewhat important = 3 Very important = 4	.84

Academic Supports

Guidance and Advising	Help planning courses needed in my program Academic advising availability Orientation Faculty available outside of class Administrators available Helpful staff Help getting registered Help from academic advisor	Importance to R of each: Not at all important = 0 Somewhat unimportant = 1 Neutral = 2 Somewhat important = 3 Very important = 4	.89
Resources and Services	Learning assistance/Tutoring Career counseling Learning resource center/library Childcare services On-campus food service Comfortable places to hang out with classmates Availability of work-study	Importance to R of each: Not at all important = 0 Somewhat unimportant = 1 Neutral = 2 Somewhat important = 3 Very important = 4	.84

Campus Feels Safe and Welcoming	Campus feels safe and secure Campus as a place I feel valued and respected Transportation/parking availability	Importance to R of each: Not at all important = 0 Somewhat unimportant = 1 Neutral = 2 Somewhat important = 3 Very important = 4	.79

Coping

passive/emotion-focused	21 items such as: Hoped a miracle would happen Went on as if nothing happened I tried to keep my feelings to myself Tried to make myself feel better by eating, drinking, smoking, using drugs, or taking medication, etc. Waited to see what would happen before doing anything Wished I could change what happened or how I felt Wished the situation would go away or somehow be over with Tried to forget the whole thing	How often, during the time of enrollment, R did each to deal with stress: Never = 0 Rarely = 1 Sometimes = 2 Often = 3	.83
active/problem-focused	21 items such as: I made a plan of action and followed it I knew what had to be done, so I doubled my efforts to make things work Came up with a couple of different solutions to the problem Tried to analyze the problem to understand it better Talked to someone to find out more about the situation Changed or grew as a person in a good way Talked to someone who could do something concrete about the problem Changed something so things would turn out all right	How often, during the time of enrollment, R did each to deal with stress: Never = 0 Rarely = 1 Sometimes = 2 Often = 3	.86

Demographics

Gender	What is your gender?	R's response: 0 = woman 1 = man
Non-White	With what race/ethnic category do you identify?	R's response: 0 = white 1 = all other categories
Age	What was your age (in years) at the time you enrolled in the college?	R's response
Income	What was your total household income at the time you enrolled at the college? < $10,000 $10,000 - $19,999 $20,000 - $29,999 $30,000 - $39,999 $40,000 - $49,000 $50,000 - $59,999 $60, 000 or more	Lower income = less than $40,000 (0, 1) Middle income = $40,000 to $59,999 (0,1) Higher income = $60,000+ (0,1)

Employment	What was your employment status during the majority of the time you were enrolled at the college?	Not employed = 0 Employed part-time = .5 Employed full-time = 1

Married	What was your marital status at the time that you entered the college?
	  Married (0,1)
	  Single (0, 1)
	  Separated (0, 1)
	  Divorced (0, 1)
	  Widowed (0, 1)
		Married = 1
		Not married = 0

Children under 18	During the majority of the time you were enrolled at the college Lived with children age birth to 5 years (0,1) Lived with children age six to 17 (0,1)	R any children under 18 at home = 1 Others = 0

First Generation College Student	Highest level of education of mother and father:
	  Less than high school (0, 1)
	  High school or GED (0, 1)
	  Some college (0, 1)
	  Associate's degree (0, 1)
	  Bachelor's degree or higher (0, 1)
		If both of R's parents had no college (less than high school or high school/GED) = 1
		Others = 0

Number of Classes Taken Per Term	During a typical term, how many credits did you take?
	  3 credits
	  6 credits
	  9 credits
	  12 credits
		3 credits = 1 class (1)
		6 credits = 2 classes (2)
		9 credits = 3 classes (3)
		12 credits = 4 classes (4)

Appendix B. Bivariate Correlations Among Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Persistence	1.00											
Sociodemographics												
2. Gender (Men)	.05	1.00										
3. Non-White	-.04	-.03	1.00									
4. Age	-.16	-.02	.16	1.00								
5. Income	-.10	-.27**	-.01	.29**	1.00							
6. Employment	.02	.01	-.11	-.14	-.09	1.00						
7. Married	-.05	-.40**	.02	.30**	.62**	-.33	1.00					
8. Children at Home	-.09	.05	-.07	.25**	-.02	-.35	.10	1.00				
9. First Generation Student	-.05	.02	-.01	.11	.12	-.24	-.03	.04	1.00			
10. Classes Taken Per Term	.30**	.10	-.11	-.38**	-.29**	.26	-.24**	.01	-.05	1.00		
Stressors												
11. Number of Life Events	-.05	.09	-.04	-.22*	-.31**	.40*	-.23**	.12	-.07	.26**	1.00	
12. Frequency of Chronic Strains	-.06	.02	.04	-.07	.18*	.31	-.08	-.02	-.04	.39**	.20	1.00
13. Frequency of Daily Hassles	-.10	-.07	.01	-.08	-.02	-.02	-.06	.02	-.03	.32**	.30**	.63**
Coping Resources												
Psychological												
14. Self-Esteem	.06	.00	-.07	.20*	.09	-.03	.07	.26**	.04	-.10	-.17	-.16
Academic Self-Efficacy												
15. Classroom interaction	.05	-.17	.08	.11	.20*	.07	.17	.17	-.13	-.02	.00	-.02
16. Time management	-.07	.14	.03	-.03	-.01	-.05	-.08	.14	-.15	.10	.15	-.27**
17. Formal evaluation	.21*	-.18*	.03	-.11	.11	-.29	.04	.04	-.26**	.10	-.16	-.10
18. Helping other students	.03	-.15	.13	.14	.05	.39*	-.03	.14	-.25	.10	.01	.05
Social												
19. Total Social Support (family, friends, workplace)	.20	.19	-.07	-.05	-.16	.00	-.24	-.09	-.37*	.27	.21	.15
20. Social Integration on Campus	.06	-.15	.13	-.11	-.20*	.20	-.14	.09	-.17*	.37**	.17*	.21*
21. Total Academic Supports (guidance, services, welcome)	.07	-.02	.28**	-.17*	-.21*	.41*	.02	.10	-.16	.41***	.23**	.26**
Coping Strategies												
22. Passive/emotion-focused	.08	.15	.17	-.08	-.13	.36	-.21*	.01	.15	.30**	.17*	.41**
23. Active/problem-focused	-.09	.23**	.13	.11	.06	.38*	.04	.17	-.03	.20*	.07	.24**

***$p < .001$, **$p < .01$, *$p < .05$

Appendix B. Bivariate Correlations Among Study Variables (continued)

	13	14	15	16	17	18	19	20	21	22	23
1. Persistence											
Sociodemographics											
2. Gender (Men)											
3. Non-White											
4. Age											
5. Income											
6. Employment											
7. Married											
8. Children at Home											
9. First Generation Student											
10. Classes Taken Per Term											
Stressors											
11. Number of Life Events											
12. Frequency of Chronic Strains											
13. Frequency of Daily Hassles	1.00										
Coping Resources											
Psychological											
14. Self-Esteem	-.05	1.00									
Academic Self-Efficacy											
15. Classroom interaction	.02	.18*	1.00								
16. Time management	-.15	.25**	.44**	1.00							
17. Formal evaluation	.03	.12	.54**	.31**	1.00						
18. Helping other students	-.05	.19*	.49**	.42**	.44**	1.00					
Social											
19. Total Social Support (family, friends, workplace)	.42*	.05	-.11	-.03	.07	-.02	1.00				
20. Social Integration on Campus	.15	.10	-.01	-.06	-.01	.12	.32	1.00			
21. Total Academic Supports (guidance, services, welcome)	.13	-.01	.07	.04	.01	.09	.34	.75**	1.00		
Coping Strategies											
22. Passive/emotion-focused	.30**	-.41**	-.23**	-.16	-.27**	-.04	.22	.30**	.34**	1.00	
23. Active/problem-focused	.21*	.10	.20*	.11	.09	.17	.40*	.23**	.32**	.38**	1.00

***$p < .001$, **$p < .01$, *$p < .05$

Appendix C: Survey Questionnaire

ADULTS IN HIGHER EDUCATION STUDY

Thank you for taking time to complete this survey! Your input is important and will help us better understand the experiences of adult undergraduate students.

Part I. Please tell us about yourself.

1. What is your **gender**? ☐ Man ☐ Woman

2. What was your **age** (in years) at the time you enrolled at the College? _____

3. With what **race/ethnic category** do you identify?
   ☐ African-American
   ☐ American Indian/Alaskan Native
   ☐ Asian or Pacific Islander
   ☐ Caucasian/White
   ☐ Hispanic/Latino
   ☐ Other (please specify): _____

4. What was your **marital status** at the time that you entered the College?
   ☐ Married ☐ Single ☐ Separated ☐ Divorced ☐ Widowed

5. Did your **marital status change** during the time you were taking classes at the College?   ☐ Yes   ☐ No

6. If yes, did you become: ☐ Separated ☐ Divorced ☐ Widowed ☐ Married   ☐ No change

7. What were your **living arrangements** during the majority of the time you were enrolled at the College? (Please check all that apply to you.)
   ☐   Lived Alone
   ☐   Lived with Spouse/Partner
   ☐   Lived with Friend/Roommate
   ☐   Lived with Sibling(s)
   ☐   Lived with Children age birth to five
   ☐   Lived with Children age six to seventeen
   ☐   Lived with Children age eighteen or over
   ☐   Lived with Other Relative(s)

8. What was your total **household income** at the time you enrolled at the College?
   ☐ Less than $10,000
   ☐ $10,000 - $19,999
   ☐ $20,000 - $29,999
   ☐ $30,000 - $39,999
   ☐ $40,000 - $49,999
   ☐ $50,000 - $59,999
   ☐ $60,000 or more

9. What was your **employment status** during the majority of the time that you were enrolled at the College?

   ☐ Employed full-time
   ☐ Employed part-time
   ☐ Not employed

10. **Education**: Please check the highest level of education achieved by you, your mother and/or father (where applicable) <u>at the time you enrolled</u> at the College.

	Less than High School Diploma	High School Diploma or GED	Some College; no degree	Associate's Degree	Bachelor's Degree or Higher
(a) You	☐	☐	☐	☐	☐
(b) Mother	☐	☐	☐	☐	☐
(c) Father	☐	☐	☐	☐	☐

Part II. **Please tell us a bit about your experiences during the time you were at the College.**

A. Please check the box that reflects the **level of support** you felt from the people listed below while attending the College.

	Very Unsupportive	Somewhat Unsupportive	Neither Supportive nor Unsupportive	Somewhat Supportive	Very Supportive	Does Not Apply
1. Your spouse or significant other	☐	☐	☐	☐	☐	☐
2. Your parents	☐	☐	☐	☐	☐	☐
3. Your children	☐	☐	☐	☐	☐	☐
5. Your friends	☐	☐	☐	☐	☐	☐
6. Your employer	☐	☐	☐	☐	☐	☐
7. Your co-workers	☐	☐	☐	☐	☐	☐

B. Please check the box that indicates your **level of agreement** with the statements below.

1. On the whole, I am satisfied with myself.
   ☐ Strongly Agree　　☐ Agree　　☐ Disagree　　☐ Strongly Disagree

2. At times, I think I am no good at all.
   ☐ Strongly Agree　　☐ Agree　　☐ Disagree　　☐ Strongly Disagree

3. I feel that I have a number of good qualities.
   ☐ Strongly Agree　　☐ Agree　　☐ Disagree　　☐ Strongly Disagree

4. I am able to do things as well as most other people.
   ☐ Strongly Agree　　☐ Agree　　☐ Disagree　　☐ Strongly Disagree

5. I feel I do not have much to be proud of.

☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

6. I certainly feel useless at times.
  ☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

7. I feel I'm a person of worth, at least on an equal plane with others.
  ☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

8. I wish I could have more respect for myself.
  ☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.
  ☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

10. I take a positive attitude towards myself.
  ☐ Strongly Agree ☐ Agree ☐ Disagree ☐ Strongly Disagree

C. Please indicate **how confident** you are doing each of the behaviors listed below by checking the appropriate box. There are no right or wrong answers.

1. Participating in a class discussion.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

2. Answering a question in a class with more than 30+ students.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

3. Answering a question in a class with less than 15+ students.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

4. Taking "objective" tests (multiple-choice, True-False, matching).
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

5. Taking "essay" tests (writing answers to test questions).
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

6. Writing a high-quality paper.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

7. Helping other students with their studying.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

8. Explaining a concept or idea to another student.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

9. Asking a professor in class to review material covered that you don't understand.
  ☐ Not Confident At All ☐ Little Confident ☐ Somewhat Confident ☐ Very Confident

10. Talking to a professor privately.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

11. Challenging a professor's opinion.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

12. Balancing school and family responsibilities.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

13. Completing tasks on time.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

14. Managing financial responsibilities of school and home.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

15. Managing time demands.
   ☐ Not Confident At All   ☐ Little Confident   ☐ Somewhat Confident   ☐ Very Confident

D. Everyone experiences stress from time to time. <u>While you were enrolled at the College</u>, **how often** did you do the following things to deal with stress? (Please check the appropriate box for each.)

1. I tried to analyze the problem in order to understand it better.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

2. I felt that time would make a difference – the only thing to do was to wait.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

3. Talked to someone to find out more about the situation.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

4. Criticized or lectured myself.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

5. Hoped a miracle would happen.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

6. Went along with fate; sometimes I have bad luck.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

7. Went on as if nothing had happened.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

8.   I tried to keep my feelings to myself.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

9. Looked for the silver lining, so to speak; tried to look on the bright side of things.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

10. Accepted sympathy and understanding from someone.
   ☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

11. I was inspired to do something creative.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

12. Tried to forget the whole thing.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

13. Changed or grew as a person in a good way.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

14. I waited to see what would happen before doing anything.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

15. I made a plan of action and followed it.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

16. I let my feelings out somehow.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

17. Realized I brought the problem on myself.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

18. Talked to someone who could do something concrete about the problem.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

19. Got away from it for a while; tried to rest or take a vacation.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

20. Tried to make myself feel better by eating, drinking, smoking, using drugs, or
taking medication, etc.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

21. I tried not to act too hastily or follow my first hunch.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

22. Rediscovered what is important in life.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

23. Changed something so things would turn out all right.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

24. Avoided being with people in general.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

25. I asked a relative or friend I respected for advice.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

26. Kept others from knowing how bad things were.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

27. Talked to someone about how I was feeling.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

28. Stood my ground and fought for what I wanted.
☐ Never   ☐ Rarely   ☐ Sometimes ☐ Often

29. Drew on my past experiences; I was in a similar situation before.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

30. I knew what had to be done, so I doubled my efforts to make things work.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

31. I made a promise to myself that things would be different next time.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

32. Came up with a couple different solutions to the problem.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

33. Accepted it since nothing could be done.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

34. I tried to keep my feelings from interfering with other things too much.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

35. Wished that I could change what had happened or how I felt.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

36. I daydreamed or imagined a better time or place than the one I was in.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

37. Wished that the situation would go away or somehow be over with.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

38. Had fantasies or wishes about how things might turn out.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

39. I prayed.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

40. I went over in my mind what I would say or do.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

41. I tried to see things from the other person's point of view.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

42. I jogged or exercised.
☐ Never ☐ Rarely ☐ Sometimes ☐ Often

E. Please rate **how important** each factor was to you when you were enrolled at the College by checking the appropriate box.

1. Help planning for courses needed in my program.
☐ Not Important At All ☐ Somewhat unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

2. Childcare services
☐ Not Important At All ☐ Somewhat unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

3. Financial aid availability
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

4. Academic advising availability.
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

5. Affordable tuition/fees
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

6. On-campus food service
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

7. Campus feels safe and secure
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

8. Transportation/parking availability
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

9. Orientation program available
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

10. Faculty availability outside of class
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

11. Social contacts with faculty
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

12. College administrators are available
☐ Not Important At All ☐ Somewhat unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

13. Helpfulness from college staff
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

14. Helpfulness getting registered
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

15. Helpfulness from academic advisor
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

16. Getting involved in intramural sports
☐ Not Important At All ☐ Somewhat unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

17. Getting involved in college-sponsored clubs
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

18. Friendships with other   students.
☐ Not Important At All ☐ Somewhat unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

19. Comfortable places to hang-out with classmates
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

20. Availability of work-study positions on campus
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

21. Classmates known by names
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

22. Belonging to a study group
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

23. Instructor or college staff contacting students who have excessive absences
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

24. Learning resource center or library
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

25. Learning assistance programs and tutoring
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

26. Career counseling available
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

27. Campus as a place I feel valued and respected
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

28. "Fitting in" on campus
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

29. "Fitting in" in class
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

30. "Hands-on" learning in my classes and labs
☐ Not Important At All ☐ Somewhat Unimportant ☐ Neutral ☐ Somewhat Important ☐ Very Important

F. Your Life Events and Circumstances

Please indicate **whether you experienced** any of these life events <u>during the time you were enrolled at the College</u> by checking the boxes that apply to you.

☐ Spouse's death
☐ Divorce
☐ Marriage separation
☐ Jail term
☐ Death of a close relative
☐ Injury or illness
☐ Marriage
☐ Fired from job
☐ Marriage reconciliation
☐ Moving

Please indicate **how often** you experienced each of the following circumstances while enrolled at the College by placing an **X** the appropriate box:

While at The College, how often did you experience:	Not at all	Only on occasion	Frequently	All of the time
1. Not enough time to meet your obligations				
2. Conflicts with family				
3. Health problems				
4. Conflicts at work				
5. Separation from people you care about				
6. Cash-flow problems				
7. Child or elder care problems				
8. Car or transportation problems				
9. Housing problems				
10. Difficulty with computers				

Please indicate **how often** you experienced each of the following circumstances while enrolled at the College by placing an **X** the appropriate box:

While at Central Penn, how often did you experience:	Not at all	Only on occasion	Frequently	All of the time
1. Flat tire				
2. Argument with significant other				
3. Home appliance breakdown				
4. Traffic accident or detour				
5. Crisis at work				
6. Lost item (wallet, keys, school work)				
7. Trouble sleeping				
8. Ill child or relative				
9. Flu or allergy symptoms				
10. Schedule conflicts				

ONE LAST QUESTION!

Did you **complete your degree** at the College?　　☐ Yes　　　　☐ No

Thank you so much for your time and assistance!