Critical Junctures in Community College Student Progress

Sam Michalowski, Ph.D.[1]

A paper presented at the 50th Annual Forum of the Association for Institutional Research,
Chicago, IL, May 29th-June 2nd, 2010

[1] Director of Institutional Research and Assessment, The College of Staten Island CUNY, 2800 Victory Boulevard, 1A-304, Staten Island, NY 10314

Abstract

Existing research demonstrates a strong relationship between the prevalence of irregular enrollment patterns among community college students and their low rates of degree attainment (Adelman 2006; Bahr 2009; Berkner et al. 2000; Goldrick-Rab 2004, 2007; Horn and Nevill 2006). However, very little is known about the features and processes that shape community college students' enrollment patterns—and their academic engagement, in general. To generate more foundational understanding of these issues as they pertain to outcomes, an interview study was conducted with 55 continuing and former students of a large urban community college. Employing a grounded theory approach (Charmaz 2006; Glaser and Strauss 1967), systematic analysis of interview transcripts along with administrative data revealed that interviewees' decisions to attend part-time, stop-out for one or more semesters or leave college altogether were shaped at critical junctures where demands from family, health and work life-realms intersected with their academic difficulties and challenges. Interviewees' differential life experiences, interpersonal skills and socially-based resources contributed to or protected against academic disengagement in varying and revealing ways during critical junctures. Moreover, non-traditional interviewees' success in life-tasks outside of college (e.g., working, child-rearing, immigrating) was found to play a significant role in decision-making during critical junctures. The self-esteem garnered through life-task success either helped them rationalize abandoning their educational goals when faced with academic difficulties as these threatened their self-esteem; or, it influenced optimistic cognitive strategies to manage these threats and to persevere through critical junctures. Presented are implications for community colleges in terms of policies and interventions to address academic disengagement and directions for future institutional research.

Table of Contents

Introduction

Community colleges in the United States are now widely promoted as central to the nation's economic recovery and long term global competitiveness. Their accessibility, versatility and shorter degree programs are thought to be ideal educational venues for retraining unemployed workers or career-changers, and improving national degree completion rates. There are, however, two major obstacles to maximizing their contribution to the nation's economic health. The first obstacle is their relatively weak financial resources. Despite enrolling about half of the nation's undergraduate population, community colleges receive far less state and federal support per full-time equivalent (FTE) student than public 4-year colleges. In 2008, community colleges received only 57% of the state, local and federal appropriations that 4-year colleges received per FTE—$10,396 vs. $17,909 (Desrochers et al., 2010). Further, community colleges attract only a small fraction of the research grants, contracts, and foundation support typically secured by their 4-year counterparts. To compensate for this historical lack of underfunding, community colleges rely heavily on adjunct faculty, larger class sizes and generally offer less instructional support for faculty and fewer resources for students. The current economic downturn only exacerbates this imbalance. Even as state and local support for community colleges (and public colleges, in general) erodes, record numbers of students are pursuing the lower cost degrees they offer. In an unprecedented response, some community colleges have capped enrollments, doubled class sizes and raised tuition significantly.

The second obstacle is community college students' time to degree and rate of degree attainment. While varying definitions and lack of comprehensive cross-institutional data make calculating exact rates difficult, one source puts the six year attainment rate for public community college starters at 14.4% for an associate degree and 11.6% for a baccalaureate degree—a 26% total success rate (Radford, A.W., et al., 2010). Another calculates this rate at thirty-six percent (Bailey et al. 2006). Cited as major causes for community college students' high rates of departure are their academic under-preparation and "non-traditional" backgrounds (Bean and Metzner 1985; Grubb 1996; Tannock and Flocks 2003; Johnson et al. 2009). While those who satisfy remedial requirements tend to do as well as their non-remedial peers (Attewell 2008), academic weaknesses coupled with demographic "risk factors" like work commitments and family responsibilities (Phillippe and Sullivan 2005) make steady progress difficult. It follows then that the enrollment career of a typical community college student is quite irregular. Initial full-time enrollment is often followed by part-time attendance, "stopping-out" (Berkner et al. 2000; Goldrick-Rab 2007; Horn and Nevill 2006) and inter-institutional "swirl" (Adelman 2006; Bahr 2009; Goldrick-Rab 2004). Community college students who predominantly enroll full-time over their academic careers have the highest rates of degree completion. Unfortunately, their ranks are few in number (Clery et al. 2010). Without substantial improvement in degree seekers' attendance patterns and performance at community colleges, the rates of degree attainment are unlikely to improve.

A growing national portfolio of interventions, policies and data collection efforts has taken shape to address the twin issues of community college students' under-preparation and enrollment inertia. This portfolio draws on the efforts of individual community colleges and includes dual enrollment and summer immersion programs to prepare students before they enroll; and, after they enroll, innovations in developmental course pedagogy, learning communities, digital tools such as ePortfolios and whole-institution efforts such as *Achieving the*

Dream. Others interventions are being tested as demonstration projects including strategies to improve student services (e.g., advising, tutoring) and performance incentives for students. Unfortunately, the evaluation research on such efforts demonstrates few positive results and has not tracked students long enough to determine if these programs help student reach the ultimate outcome—graduation (Rutschow, et al, 2010; Scrivener, Weiss and Teres, 2009; Scrivener and Coghlan, 2010).

Most research on post-secondary outcomes which could be used to guide such interventions is focused on baccalaureate degree students. A scant but growing body of quantitative literature examines the correlates of community college students' outcomes (see Goldrick-Rab, 2010, for a recent compendium). Beyond studies which simply examine the role of demographic factors in degree attainment, applications of Tinto's (1983, 1987) work on the role of academic and social integration for baccalaureate students predominate (Bers 1991; Fox, 1986; Stahl and Pavel 1992; Pascarella and Chapman 1983; Vorhees 1987). Most find that social integration is not a salient factor in community college students' progress primarily because their engagement with this feature of college-going is quite limited. Rather, academic engagement is the most crucial correlate of community college students' progress.

Another vein of quantitative research on community college outcomes examines the longitudinal pathways and milestones predictive of degree attainment using administrative transcript data (Adelman 1999, 2006; Calcagno, et al., 2007; Hagedorn and Kress 2008). In tracking what happened –and perhaps counterfactually proposing what should have happened— for an average community college student to be successful, these findings suggest targets for community colleges to set for their students. They do not, however, generate theories as to *how* or *why* community college students find their way to a particular pathway or reach specific milestones.

Generally missing from the literature are qualitative studies which can better explain the whys and hows of community college student progress. Qualitative research on community college students can yield a richer understanding of the issues and challenges they face. This understanding can, in turn, can aid in making policy and intervention efforts more effective and spur the development of better fitting quantitative models. The qualitative studies on community college students that do exist typically use national cross-institution and cross-sectional surveys (Center for Community College Student Engagement 2009; Public Agenda 2009), have a limited unit of analysis (Cox 2009a, 2009b; Gardenhire-Crooks et al. 2010; O'Gara 2009), or remain unpublished (Di Tommasso 2008; Neuman 1985). Thus, longstanding and growing calls for qualitative and narrative study of community college students have largely gone unmet (Attinasi 1990; Bers 2008; Delaney 2008; Goldrick-Rab 2010; Guiffrida 2006; Tinto 1993, 1998; Van Mannan 1987).

Purpose of this study

A qualitative interview study conducted at a large diverse urban community college in the northeast–hereafter pseudonymously referred to as Northeast City Community College (NECC)–presents new insights into the features and processes which shape community college students' progress. The original impetus for this study was applied. In-house analysis at NECC found a strong positive connection between students' irregular enrollment patterns with increased time to degree and decreased likelihood of graduating (around 26% after 6 years for first-time full-time freshmen). The college's administrative data, however, relinquished little

with regards to the causes of these disruptions which hindered the development of any policies or interventions to address the problem. Therefore, this interview study was commissioned by NECC's institutional research office to initially answer the question: *What causes NECC's students to attend less than full-time?*

Examination of the existing literature in preparation for this study clearly indicated the need for broader understanding of the processes of community college student progress. The opportunity was taken, therefore, to mount a more comprehensive study using the relationship between enrollment intensity and longitudinal outcomes as a central focal point. An interview protocol was designed to elicit comments from interviewees on a wide range of topics and themes found in the existing literature. It encompassed conditions both internal and external to the study participants' college-going as well as developmental and interpersonal skills (e.g., decision-making) and processes (e.g., college-student identity formation). This approach would not only serve to help answer the initial research question within the context of the literature on community college student progress; it would also facilitate the development of a new and useful way to theorize community college student progress.

Critical junctures in community college students' progress

A grounded theory (Charmaz 2006; Glaser and Strauss 1967) approach to analysis of interview and academic transcript data revealed that interviewees' disengagement from full-time enrollment was often a response to looming or in-progress crises caused by overlapping personal and academic difficulties. Isolated from the ordinary challenges of managing life while pursuing postsecondary education, these *critical junctures* were formed at the intersections of substantial factors of personal performance which led interviewees to view full-time enrollment as impractical or improbable. The likelihood of disengagement from full-time enrollment and the short and long term outcomes of this disengagement hinged upon the interpersonal and socially based resources which they brought to bear on their responses.

Three distinct dimensions emerged in theorizing these critical junctures in interviewees' progress. The first compromised the family, health and work life-realms external to their college-going. These competed greatly with interviewees' academic engagement such as attending classes and finding time and energy to study. In addition, periodic or ongoing crises arising in one or more of these external realms threatened their development of a college student identity (Kasworm 2005; Saunders and Serna 2004) and faith in their long-term goal of getting a college degree. The complexities of their lives and the prevalence of life-crises are clear evidence of the risk-factors set in motion by their "non-traditional" backgrounds.

The second dimension consisted of college-going experiences and challenges. Relevant features were experiences in their courses (e.g., course material, instructors' pedagogy), with campus life (e.g., interaction with other students in their classes, but not socially), and with administrative tasks (e.g., course registration, advising, financial aid). Negative experiences threatened their attachment to the college, engagement in their studies and formulation of their long term goals. Positive college-going experiences worked to strengthen their attachment to the college and academic engagement and protected against future negative experiences or factors whether external or internal.

Past academic experiences comprise the third dimension. These experiences not only determined interviewees' academic abilities and skills, but also shaped the narrative through which they engaged their academic work and self-assessed their academic abilities. A strong

relationship was observed between interviewees' past educational experiences, their internal narrative about their academic abilities and their outcomes. For academically challenged interviewees, overcoming the idea that they were incapable students seemed more paramount to progress than their actual skill at completing course assignments (provided they put the work in). As a result of the difficulty of this process, many reevaluated the likelihood that they would complete their degree and even recalculated the value of such a degree.

Interviewees' responses to critical junctures were largely shaped by the interpersonal skills[2] they brought to bear such as goal-setting and problem-solving skills and their access to and utilization of socially based resources such as informational networks and homeland communities. Table 2 presents these as they were brought to bear on the critical junctures identified. Like past academic experiences, interviewees' interpersonal skills and socially based resources were enacted dynamically; that is, interviewees accessed these depending upon the situation and circumstances at hand. Their responses were also often shaped by responses to similar situations in their past—often arriving at the same result, whether productive or unproductive. Growth in their decision-making strategies was often a crucial correlate of their ability to overcome future critical junctures. And, as their strategies improved, their narrative about their abilities also improved better preparing them for future challenges and difficulties. For many, however, even getting on the path to this reinforcing relationship between improved responses and internal narrative about their abilities proved difficult at best.

[Table 2 about here]

Further interpretive features of critical junctures were: a) the timing, severity and complexity of the factors comprising the dimensions, b) the degree of voluntarity they had in choosing their response, and c) the immediate and long term outcome of their response. Some interviewees chose to shift to part-time attendance or stop-out to avoid an academic calamity such as failing a course or courses. Others simply had no other choice except to downgrade from full-time study due to the severity of the juncture at hand. Outcomes of these enrollment disruptions ranged from having very little effect on their academic progress (e.g., attending part-time to save their GPA) to a complete halt for those who left the college. Pertinent to the outcomes were the degrees to which they sought help from friends, family or college personnel, grew in their problem solving skills, persevered through often difficult circumstances and recovered academic ground (or at least held it) in subsequent semesters. Diagram 1 presents this interpretive model of critical junctures.

Emergent research questions

As the critical junctures interpretive model took shape, three additional research questions emerged to help structure the analysis of critical junctures before, during and after the target semester. These were:

- *How do community college students' life responsibilities, crises and academic challenges produce critical junctures?*

---

[2] Interpersonal skills are also referred to as non-cognitive in the literature. These are non-cognitive in so far as they are not direct measures of academic ability (like test scores), but are inter- and intrapersonal dispositions and capabilities which are also strongly associated with academic progress and personal effectiveness.

- *What interpersonal skills and personal resources do community college students bring to bear in their responses to critical junctures?*
- *What type of short- and long-term outcomes result from community college students' responses to critical junctures?*

Unique assets of this study

Three particular assets of this study relating to the wider context of community colleges are worth highlighting. First, the number of in-depth interviews conducted (56) and longitudinal tracking of the interviewees' progress in administrative data (up to two years after the initial interview) provides a rich basis of evidence upon which to theorize community college student progress. Not only were critical junctures identified across interviewees, but there was opportunity to examine several interviewees' experience of multiple critical junctures. Further, instances were identified where interviewees remained enrolled despite overwhelming circumstances to the contrary. That is, not all critical junctures result in enrollment disruptions. This provides much-needed understanding about the role of resiliency in community college student progress.

Second, the study college serves—and is staffed by— an extremely diverse population where the ethnic minority of Hispanics is in the plurality. This diversity may potentially have mitigated the cultural and social conflict experienced by minority and non-traditional interviewees' which some authors argue leads to their lower success rates (Attinasi 1989; Rendon et al. 2000).[3] To wit, many interviewees reported that they felt comfortable and supported by the diversity of the study college's environment. Further, the diversity of the interviewee pool extends to a number of increasingly relevant subgroups in urban higher education. These include: a) foreign-born from both from English and non-English speaking countries; b) those who immigrated both early and later in life; and, c) undocumented residents. As a result, the findings capture the experiences of groups not well-represented in the literature.

The third asset is the fact that as an institutional researcher at the study college, I had nearly unprecedented ongoing access to student data, interviewees and research resources. This *native* status also provided me with access to other resources such as the experiential knowledge of faculty and staff, ongoing research at the college, and other documents which provided useful in carrying out the study and vetting the findings. Also, as an applied research study at the college, the data and study results were dispersed widely and informed new initiatives, policy improvements, research and institutional analysis. The validity, reliability and quality of the study's findings are assured in so far as these were verified and extended by the members of the study college.

---

[3] Instead of confronting a process of assimilation, acculturation or rejection of a college environment which reflects the dominant cultural value system, students arguably encounter a culturally relativistic or perhaps even culturally neutral environment. Therefore, the cultural disjunctures (Rendon et al. 2000) experienced by students at the study college may have more to do with adapting to the value system of higher education rather than ethnic diversity. This is a crucial perspective as demographics and the college wage premium are slowly shifting "non-traditional" college students into the majority.

Research Design

Grounded Theory methodology

The grounded theory approach (Charmaz 2006; Glaser and Strauss 1967) was used to guide collection, coding, analysis and interpretation of the qualitative and other data collected. Rather than test an a priori hypothesis as most quantitative methodologies do, this method seeks to develop theory about a research setting through a largely inductive approach. It was reasoned that when paired with the direct narratives of community college students this exploratory and emergently-focused methodology could offer new and needed insights into the problem of community college student outcomes. Utilizing a constant comparative analysis strategy, themes, concepts and phenomenon were written up as memos as they were revealed in the iterative open coding of qualitative and quantitative data. Data were then axially recoded to accommodate structuring patterns in the emerging analytical perspective. New research questions and data sources were added to the research design to accommodate developing themes and relationships. This iterative triangulation between data sources, concepts, themes and theories provided a way to thoroughly and systematically test and build reliable data and theory about the interviewees' progress.

Qualitative interviews

In-depth interviews were solicited from a stratified random sample of associate degree students at the study college. IRB approval was obtained and protocols were followed at all times to insure voluntary participation and maintain participants' and confidentiality and the security of the data collected. These recruits were stratified by year of entry or readmission (2006, 2007), gender and first semester GPA (a 0 GPA due to developmental course requirements, <2.0, >=2.0) and whether they attended part-time, stopped-out for one semester or potentially left the college during the target semester, spring 2008. Fifty-six individuals were eventually interviewed in fall 2008, one semester after the target semester. Twenty-two had enrolled part-time in the target semester and fifteen had stopped out. These two types of continuing students were termed *returners*. Eighteen students not enrolling in the target semester and failing to enroll in the semester of the interviews were considered *potential leavers.*[4]

Because of the nature of qualitative research, it is nearly impossible to collect responses from a representative sample. An attempt was made, however, to conduct an interview with at least one individual from each sample cell. When the overall student population was overrepresented in a particular cell, two and three interviews were sought. Halfway during the interview recruitment period, it was necessary to recruit additional male interviewees due to their

---

[4] Five of these potential leavers eventually returned to college within the time-scope of the study. That is they converted from "leavers" to 1-year or longer "stop-outs" (though two left the study college for another local community college). Thus, "potential" was an accurate modifier, though unfortunately, the majority of these (72%) did not return to college up to 2 years after the target semester. It should also be noted that disengagement was not isolated to the target semester. Six "returners" appear to have left the college and not enrolled elsewhere as of spring 2010. In fact, only 17 of the entire sample were enrolled continuously through (or had graduated by) spring 2010 and of those, only three (5%) were enrolled full-time continuously through this time period.

low uptake rate. In the end, the interviewee pool represented the study college's highly diverse degree student population (see Table 1) with a few exceptions including a higher percentage of GED recipients, foreign born and, fortuitously, a higher percentage of males. In all, at least one interview was conducted with students representing 80% of the selection cells. Interviews were conducted in a variety of formats according to interviewees' convenience and preference including one-on-one in-person (37) and over the telephone (12, mostly with leavers) and two group interviews (4 and 2). Forty-three (78%) of these interview sessions were audio recorded averaging about forty-five minutes in length. Due to the malfunction of the audio recorder, interview data from 55 recruits were eventually used.

[Table 1 about here]

The semi-structured interview protocol (Appendix B) used was organized around seven themes in the existing literature on college student outcomes. These included: pre-college experiences and traits like preparation in high school (Adelman 2006); being the first to attend college in their family (Pascarella et al. 2004; Terenzini et al. 1994); being an urban college student (Roueche and Roueche 1993); work and family responsibilities (Adelman 1999; U.S. Department of Education 2003; Nora et al. 1996; Tannock and Flocks 2003); intrapersonal, psychosocial or non-cognitive skills such as help-seeking (Karabenick 2004), goal-setting and goal-commitment (Tinto 1975; Zimmerman et at. 1992); academic engagement and knowledge (Conley 2005; Kuh et al. 2008) and involvement (Astin 1984); and, their academic and social integration at the college (Braxton 2000; Tinto 1975, 1987). Additional particularistic questions were asked as relevant material emerged in interviewees' accounts. These included interviewees' personal resources such as family support (i.e., financial and emotional) and family composition, immigration and naturalization ordeals, and experiences with specific features of the study college such as support services (e.g., tutoring) and degree requirements (e.g., internships). Particular attention was made to uncovering the thought processes of interviewees' as they encountered and dealt with challenges and difficulties which threatened their progress. Lastly, interviewees' academic transcripts prepared in advance of the interviews served as a specific point of reference in our conversations about their academic careers at the study college. In this sense, the interview protocol attempted to balance the context of their lives as mostly non-traditional college students in an intense urban environment with the specificity of the progress through their course of study.

Administrative data

Additional opportunities for analysis and triangulation of interview findings were provided by three administrative data sources: their academic transcript data at the study college, a university system data warehouse and the National Student Loan Clearinghouse. Further detail was provided by their responses to a new student survey.[5] The incorporation of this supplemental data in analysis served to verify, correct and expand interpretation of the qualitative data collected in the interviews. Interviewees' academic progress was tracked using these

---

[5] This is a brief survey presented to those who are required to take an academic skills placement exam. Eight interviewees did not need to take this exam; therefore, their responses are missing from this data.

administrative data sources in light of their goals and intentions for two years after the target semester (i.e., to the start of spring 2010 semester).

Data analysis

The audio recordings of the first interviews were transcribed by a professional transcription company and with the written interview notes coded in the Nvivo8 software program. In keeping with grounded theory methodology, interview data was first open coded with particular attention to the initial research question expanding to other events of disengagement and success. While several hundred specific or "free nodes" were generated, these were eventually organized into nine sometimes overlapping "tree nodes" into which the majority of these were nested. These were: 1) educational background, 2) college experiences, 2) job/work, 3) money, 4) time, 5) studying, 6) family, 7) moods, 8) goals and 9) interpretative concepts (e.g., striving, disengaging). Descriptive case studies of interviewees' personal and academic histories were written. These were then compared, contrasted and classified which helped in generating axial coding of the data and generating cross-case themes which ultimately helped construct the grounded theoretical insights. A running casebook of qualitative and quantitative indicators was also added to Nvivo8 to aid in querying.

Sources of enrollment disruption in the target semester

Table 3 presents the distribution of interviewees' enrollment status in the study's target semester by source as either a critical juncture or two other conditions: an almost universally preventable administrative issue; or personal choice. Critical junctures were the overwhelming source of disengagement in the target semester across the three types with the strongest representation among "potential leavers" (17). Principle sources of critical junctures across all degrees of enrollment disruption included the external factors of work (11), family (6) and personal health issues (7). Problems in their academic courses (7) or maintaining a satisfactory GPA (6) were also dominant internal factors.

[Table 3 about here]

While interviewees' disengagement was principally caused by critical junctures, the fairly simplistic and usually preventable administrative issues and missteps on the part of interviewees, instructors, and/or college personnel were quite common. On the part of students, haste, impatience or incorrect assumptions about administrative tasks caused such missteps.[6] On the part of the college, problems in policy, data handling, communication or information delivery provided the source. This is a particularly salient finding with regards to identifying policy remediable areas which community colleges can immediately address to prevent enrollment disruptions. While enrollment disruptions did not always ensue from administrative issues in and outside the target semester, the cumulative effect of such experiences led several interviewees to have diminishing faith in their academic progress contributing to their decision to

---

[6] This behavior is distinguished from students' acts of academic disengagement like not studying for a test which is relevant but not critically so to this institutional-level (meso-level) oriented study.

go part-time, stop-out or leave the college in later semesters.[7] Similarly, when added to other factors contributing to a critical junctures, administrative issues (but not factors related to personal choice) were often the last straw leading to enrollment disengagement.

Enrollment disruption due to personal reasons was a much less common source. In these instances, interviewees more or less had the luxury of placing personal endeavors above the need to make progress on their degrees. Due to travel plans, three chose to attend part-time and one to stop-out in the target semester. The fourth choose to leave the study college after qualifying for legal status in the U.S. and securing a full-time job. While community colleges may not have any direct way to address students' disruption of their enrollment for personal reasons, it may be an area which warrants further investigation. The remainder of this document focuses principally on critical junctures as a source of interviewees' enrollment disruptions, though administrative issues and personal choice are highlighted where appropriate.

The remainder of this document presents case studies and cross-case analysis of 56 NECC community college students' enrollment disruptions organized by two topic areas: 1) academic experiences and challenges, and 2) work and academic progress. While there was sufficient evidence that administrative issues and challenges and personal choice caused enrollment disruptions, these were generally not associated with critical junctures. That is, not all community college students' enrollment disruptions are critical in nature. And, when related to critical junctures, the role of administrative issues and personal choice was most often of a subordinate nature. It was through the following granular, iterative and thick description of these enrollment disruptions that the critical junctures perspective emerges. Where relevant, references to existing literature aid in developing the emergent themes and processes which formed the critical junctures in these 56 NECC's students' progress.

---

[7] It should be noted that outside of the target semester, not all administrative missteps or adjustments or critical junctures resulted in enrollment disruptions. In these instances, interviewees' interpersonal skills and personal resources were crucial to avoiding and enrollment disruption. In this sense, understanding how students are able to avoid enrollment disruptions can aid in developing interventions in those instances where an enrollment disruption otherwise appears eminent.

Qualitative Analysis

Academic skills and course challenges

Fourteen of the critical junctures in the target semester were directly related to interviewees' academic experiences and challenges. Difficulties and experiences in developmental courses (i.e., ESL, English, and math) figured prominently in these. Nationally, 60% of community college students need to take one or more developmental (i.e., remedial) courses and this is reflected at the study college. While getting over the developmental hurdle is a significant stumbling block for community college students, those who do so are just as likely to graduate as those who did not need remediation (Attewell et al. 2006; Behr 2008).[8] Passing required science courses for the critical mass of interviewees enrolled in allied health majors also figured prominently. Interviewees' experiences with the teaching styles, expectations, and demeanor of their instructors along with the course requirements including tests, papers and group work figured prominently in their accounts as well as study habits and tutoring.

In some cases interviewees found ways to navigate through the critical junctures caused by academic challenges by going part-time, stopping out or other strategies. In other cases, they were unable or unwilling to marshal the *interpersonal skills* or *socially based resources* necessary to overcome the particular critical juncture and they left the college.

ESL courses

Ten non-native English speakers participated in the study. Their academic challenges starting with their ESL courses and lasting throughout their course of study highlight the fact that English language facility necessary for academic progress. In all, these ten students registered for thirty-two non-credit ESL courses over the course of the academic careers up to the interview semester. While most offered little detail about their ESL courses when asked, a few presented questionable teaching practices and behaviors of ESL their instructors.

Edward

Edward's repeated difficulties passing his ESL courses along with his demanding career in construction led to his decision to permanently leave the study college as of the target semester. He contended that all of his academic problems stemmed from his lack of English skills, and that he was "coming from zero" English ability when he immigrated. He looked back with frustration at his experience failing his ESL courses three times and his speech course twice because it delayed his ability to take college credit courses.[9] He reported being "ok" with failing each course one time, but with the second and third instances, he placed the blame with the

---

[8] This was also the case in analysis conducted at the study college.

[9] Developmental course requirements are associated with increased time to degree and increased likelihood for departure among community college students in the quantitative literature. Edward's experience not only illustrates how developmental education requirements lengthens time to degree (i.e., multiple attempts), but also a causal mechanism which may help explain departure: the sunk costs that they incur. As these increase, a student not only looses faith in their ability to earn their degree, but they also seek to minimize future losses by departing.

college and instructors' teaching methods. In one class he is required to buy a book, but the professor does not use it in the class. In his last ESL course attempt, he was unable to find out why he failed the final exam: "I asking the professor, 'But what was my fault? Show me what's going on. Maybe if you like take the fourth time, I can know what's going on,' but they said no. I don't know, even the professor know nothing."

Edward claims that part of the problem had to do with the fact that too many students were enrolled in his ESL course. As a result, the professor was unable to tailor his teaching to better meet the individual needs of the students. In the following passage, Edward makes a point about the differentiated needs of ESL students which instructors have a hard time accommodating in large classes:

> Maybe I think the professor need putting more emphasis in what is your problem? For example, if you — because if you — he took the class 20, 25, 10, whatever it is, students, and they made a class in the same level for everybody, maybe from 10 maybe 2 or 3 are going to learn about what's going on with the other person, because you know each person is different _____, is different mind. Maybe you are really good to speak, but you have problem to write, or the other person is good to write and can write whatever like professional, but you know, but can he speak?

His suggestion seems to be that English language learners' differentiated needs (i.e., good verbal skills but weak writing skills or visa versa) effects what the instructor is capable of pedagogically. This might suggest that a verbal assessment of ESL students' capabilities would allow the college to differentiate ESL instruction according to their reading, writing *and* speaking capabilities.

Soo

Soo stopped out during the spring 2008 semester due to what can be described conservatively as a difficult experience with an ESL instructor. On the one hand she questions the value of the teacher's assignments. For one class sitting, the instructor encouraged students to bring food which represented their cultural heritage only requiring that they read the written recipe in front of the class. For the following class the instructor suggested that they go to a museum. Soo reports that "nobody no want to go to the museum but she just said, you know, 'If somebody go with me, I'm gonna give *extra credit*!'" Soo goes on to make the point that "[t]he museum and our writing class is…nothing connected, nothing." She describes how the instructor never really taught the class to write, only correcting "the other person's singular 's'" and not "how do we get into the introduction, or body, or conclusion, anything." During another class, Soo describes the teacher as "just a writing, and then she is eating in front of us… She's eating. Just a, just a screaming 'You can't be here!' Screaming. Everybody went 'Oh! What is she's doing now? Why she never teaches?'"

As a result of feeling like she wasn't learning how to write in English, she spoke to the classes writing lab tutor. The next day in an act of retaliation, the instructor pointed at Soo in front of the class demanding the class to "Teach her how to write!" As a result of this humiliation, she feared that the professor was going to intentionally punish her by failing her—and administrative records indicate that she was the only student to fail the course.

In the following exchange, we see how this experience discouraged Soo from returning for the next semester:

> *Interviewer*
> So you… so this one class, you… she…you feel, she, or she did single you out and made you feel bad and then you decided not to come back for the next semester?
> *Soo*
> Yeah, yeah. Of course I was really afraid, Oh my god! How can I talk about the professor. Even though they teach or not. I have to quiet. So I discourage really.
> …
> I was scared, 'cause personally I, I never have any bad relationship with anybody. I had really good relationship with my classmates, all my friends. But, teacher, I didn't intentionally [say] "she's bad." It's just the tutor asked "why, why you write this way. This is completely wrong." So, I don't know. My professor didn't say anything, so I don't know. So, that's why I wrote this way.

While Soo returns for a successful semester in fall 2008, she does not return to the college any point thereafter.

Malika reported an eerily similar experience with an ESL instructor in terms of the instructor's demeanor and teaching practices, but she did not leave the college:

> Yeah. Like, when I came first semester, I had a teacher…she was, ah, doing like if you asking her something, like she was screaming "I cannot tell you! I am busy right now!" And she said, "If you don't pass, if you don't do well, why you come here?" …and all student are like embarrassing and they feel like, 'Oh my god. We came here from other country for learn. And if she do, like, if she behave like that, then how can I study? How can I learn?' She is supposed to teach us then she expect like more, but she don't teach us how to write, how to do essay. And, she just get up everyday and come and give a paper, give an article, write this and write this.

Administrative records indicated that Soo and Malika's ESL instructors were not the same. While these two similar incidences of what may be generously described as poor motivational tactics by ESL instructors at the study college do not necessarily indicate a trend, these were the most egregious accounts of instructor behavior in the interviews.

Developmental English courses

Kavon

Kavon locates the source of his problem in his developmental English courses as partially stemming from his high school which he claims let him graduate "with a bad English grade." He ticks off "technical issues" such as grammar, sentence structure, and punctuation as posing him the greatest challenge. But, he also claims that he found the English tutors and teachers at the study college to be "nonchalant." He suggests that "[i]nstead of treating homework as an everyday thing, [they should] just be more open, more energetic, strict. They should explain how homework and assignments builds on the structure, on what students need to succeed."

In tackling this problem, Kavon describes marshalling numerous socially based resources. He sought help from friends, professors and tutors on his problems with his English coursework and assignments. His described his well-educated parents as supportive of his education and he reported having enough time to study --in his words "too much time." And, with seven developmental English course attempts Kavon might easily qualify as one of the most persistent students at the study college. But, it appears that one crucial source of his difficulty is test taking. He describes that he "always failed the final exam at the end of the semester."

During his second stop out period, Kavon moved to California to pursue his dream of becoming a massage therapist where he enrolled in a community college certificate program. Unfortunately, he could not find a job to support himself while there and returns home with the hope of eventually enrolling in a massage therapy program. The major pull factors was that in the local area he could receive better public assistance (e.g., food stamps) and more direct support from his family in terms of a place to live.

He returns to the study college one last time in fall 2007 and as likely evidence of his experience in California, he applied for and received a very substantial financial aid award ($4600) for that semester (ex. *learning from mistakes*). He reasons that earning his Associates first will provide knowledge that can be applied to his future study of massage, and that it will "look good on [his] resume" as a massage therapist. While he earned a C, a B, a B+ in three credit courses that semester, he again failed *Basic English II* and thereafter did not return to the college. Despite a critical mass of personal resources and family support for his education, Kavon's sunk costs in his developmental English course appear to have led to his decision to leave the study college.

Credit-bearing English courses

Jimena

Jimena's experience with *English 101* was not as dramatic as Kavon's, but when paired with difficulties getting financial aid appear to also contribute to her departure. Because of difficulties with her work schedule, during the first session of fall 2007, Jimena withdrew from two courses and received a WU in two others. She returned in the second session to retake two of these courses including *English 101* in which she earns an F. Here's how she recalls the reason for failing this course:

> What's silly is that I did really well in the class and my last paper I didn't comp – I did half of it but it was just the silliest thing. I don't even understand why I stopped because every test I took, every assignment I had I got A's, B's so I was doing well but I didn't hand in the final assignment. So she said you can't pass if you don't hand in the final assignment. And I don't know what happened. I got stuck. I got writer's block…
> ….
> *Interviewer*
> When you didn't do this paper what happened after that? Did you know you were getting an F? Or you got the F? Did you speak to the professor before?
> ….
> *Jimena*
> I went up to her and I said, "Well I've been doing well in the class and I would like to," I

was like, "I know I didn't come in last week to hand in the paper," I explained to her I couldn't get the words out, I had writer's block, I couldn't – was confused, stuck. I ripped up ten papers and started all over again. And I said "Right now I'm still working on it. Is there any way I can still hand it in to you in a couple of days?" And she said "Well you know the due date was last week."

Interviewer
So she was very strict.
Jimena
Very strict about it.
Interviewer
And there was no room; she was not giving you any wriggle room?
Jimena
No.

Whereas Kavon's difficulty lied with the tests in his English class, struggling to write the term paper for Jimena's *English 101* caused her to fail the class. This highlights the fact that particular course assignments pose stumbling blocks for particular students.

Developmental math courses

Developmental coursework in math is the most required of college students (Adelman 2004) and is the most highly correlated with the likelihood of retention and graduation (Behr 2008). Reflecting the remedial needs of the college population as a whole, a full 50% of the respondents needed developmental coursework in math.[10] Though experiences and difficulties with their math courses only factored in four interviewees' critical junctures in the target semester, many more occurred during their initial semesters at NECC. Twenty-three interviewees took a total of thirty-four developmental math courses before, during and after the target semester through sprint 2010. Of these, there were eight withdrawals and 14 course failures for a total unsuccessful outcome rate of 65%.

Inability to pass developmental math figured most prominently in potential leavers' accounts. Paired with a stressful job as a health care aid and pursuant legal conflicts with his employer, Hasan's difficulty with developmental math which he failed two times contributed to his decision to leave the study college as of the target semester:

I just did the math the first time and I was like, "You know what, I'm going to get through it." But, it just so happened I couldn't focus. And, the second time I tried to do it again, it's the same thing happening because whenever I get off work, it's like the time I am so stressed out. I just can't focus. I keep failing the math. The first time, I think, I didn't get to complete it completely. I was so bummed out I just dropped completely.

Difficulties in Cindy's developmental math course also lead her to "lose hope" of making adequate progress toward her degree: "Towards the end of the semester, I was having a difficult time balancing my classes and felt trapped. I didn't have a goal set, and got stuck in math…kind of lost hope."

---

[10] Of the 55 interviewees, 11 (20%) were placed into *Basic Math I* and 17 (30%) were placed into *Basic Math II*.

One striking feature of the math-challenged interviewees' accounts of their relationship to math was how well-formed and negative their math self-concept was. Their descriptions referenced psychological conditions and physical experiences not characteristic in their descriptions of their abilities in other subjects:

- David describes being "nervous about math" because he "just can't do it."
- Janice says that math was "kicking [her] butt."
- Hasan says that he is "very good at anything else besides math."
- Arnold calls himself "mathematically retarded" and when he sees math his "brain shuts down."
- Math totally "clouded" Cindy's thinking leading her to inquire at the disability office about testing for a math learning disability.

At the individual level, math-challenged interviewees laid blame with their experiences in high school, the time they spend out of school (e.g., after high school), and their English ability. At the college level, they implicated the course level into which they were placed, and their math instructors' teaching style and English ability including their foreign language accents. While some sought out math tutoring at NECC, there were more descriptions of non-beneficial experiences than effective ones.

Role of time between high school and college

Unlike language based skills which are reinforced daily out of school, the types of math skills taught and tested in college math courses such as algebra are generally not. Put another way, individuals tend only to encounter "math" while they are in school. It may come as no surprise then that many interviewees who took time off before enrolling in college or who stopped out for one or more semesters after enrolling described being "rusty" when it came to their math ability.

Victoria
You know, I haven't used math for a while, being out of high school… I never initially graduated from high school. I took my GED test. I only finished my junior year, and then I didn't go my senior year, and I wasn't exposed – I mean, I was exposed to mathematics the first two years, but then afterwards, it's like three years before having done actual, any math.

Dian
When was the last time I was in school? 2000 or was it 1999? So, that's a long time.

This was even relevant to interviewees who might be described as math-successful*:*

Carlos
I always been good in math but I mean maybe 'cause I took so much time off that I kind of lost – I kind of don't remember how it went, how these problems are solved.

Diego

So one guy… told me that there was no more room for calculus I. But, I could take pre-calculus. That was good, and I would just take it because I may have forgotten. I said "Okay, let's go: Pre-calc."

Some also described their experience with math in high school as alternatively both less than impressive and as even more rigorous than what they were experiencing in their math courses at NECC. The former tended to be native-born public school graduates and the latter were later immigrating individuals who had spent some time in school in homelands where math was taught using more stricter rote memorization approaches. This was the rule with one exception: Farrah describes the grading in her homeland's school system as revolving around bribes paid to teachers. As a result, she claimed during our interview that she was only learning how to study at that time.

Ormando

Past experiences in school are not the only historical experiences which matter for interviewees' math self-concept or -efficacy. While Ormando's determination, follow-thru and self-sufficiency are great assets to his career as a superintendent of a 34 unit building, a gigging musician and as a father, his math self-concept may have played a significant role in his decision to leave NECC. Although he felt "very strong" in other courses (in which he earned a 3.0 GPA average) in his first and only semester at the study school, he reported feeling "intimidated" by his developmental math course. He reported going to math tutoring two or three times, but he "took a fear towards it" and eventually "brushed it off" by withdrawing.

In the following passage, we find out the source of his fear of math is a result of his mother's approach to making him learn it at home:

Well, my mom is from the old school. And, the way that we were taught math we had to pretty much read our times tables or our divisions tables or anything out loud for about two hours. Right? And then, she'd test you on it. And, if you failed you had to go back for another hour or so just so we kind of, it kind of became traumatizing.

It might be likely that his mother's traumatizing way of having Ormando learn his times tables influenced his early departure from high school. If he learned to fear math in grade school (when times and divisions tables are typically taught), and he feared it in college, he likely feared it in high school. For Ormando, math is *always already* an insurmountable challenge because of this experience. Also lurking beneath the surface is the risk to his self-concept as a self-made man. In order to overcome his fear and the challenge of learning math, it would require help seeking and new strategies with the math material on his part. Instead, he employs the adaptive strategy of abandoning his math course and when faced with what he feels is the choice between being a successful parent and college student, he abandons NECC.

When asked what he would do differently if he were to return to college, Ormando not only potentially foreshadows for himself the growth in math self-concept that Victoria described, but also identifies an personal source of this improved self-concept: helping his son with his math homework:

I was considering probably tackling my demons and tackling what was the most difficult part for me. I was thinking of going to a remedial math class, trying to get that going. Because I'm finding that helping my son now 'cause now I sit down and help my son with his homework. And, I see some of the things that I had encountered before and I say to myself, "Now I'm understanding." Because now I'm doing it at a sixth grade, seventh grade level. But, at least I'm touching on these little things that had just been out of my brain for so long.

Situations such as this one where students connect what they are learning in college to some meaningful event or feature of their personal life can provide deeper context and momentum for their studies. Unfortunately, there were very few of these in evidence.

After leaving NECC, Ormando confided in his aunt who works at the study college about this situation and his desire to return to college. She suggested he take a third way: "Go back. One or two classes and take it at your pace." So, he considers "heading back part time. Only because again I'm afraid to put too much on my plate and not being able to finish, you know?" While we are uncertain as to whether Ormando can afford to go part-time in terms of financial aid, he is at least considering a modification of his normal approach to things; instead of taking a full-time load, he is considering going part-time particularly so that he has adequate time an energy to pass the math course. Perhaps as Ormando continues to improve his math ability and increase his math self-concept through helping his son with his math homework, he may get to a point where he feels confident enough to return to the college and tackle his math demons.

Like Ormando, Victoria implicates difficulties with developmental math along with family and work responsibilities in her decision to leave NECC the first of two times. She reflects on this past experience in our interview: "I never really gave myself a chance, you can say, to kind of knuckle through the whole course, as I would now." Despite this apparent growth in her attitude toward math, she avoided it until spring 2010.

Role of math instructor or professor

Several interviewees made a correlation between how well they did in their math courses with the teaching method and qualities of their instructor. Arnold contends that the reason that he had to drop statistics, "one of the easiest math courses you can take," was because "it wasn't really taught well." Dian puts the blame on the speed at which his upper level statistics instructor was going through the material:

Interviewer
How is it different or describe the teaching?
Dian
Fast and I'm pretty quick at catching up. You know you lose track in one, two days and you get lost. And, even trying to read the textbook sometimes doesn't help. I tried to go to the tutoring sometimes. It's just a lot to catch up and that's why.
Interviewer
Is this [statistics]?
Dian
Yes. (Laughs)
Interviewer

So you think the professor is just moving too fast?
Dian
I mean, there are other classmates that's having trouble as well. And, I was also thinking that if I have time that I would retake the class even if I was given a D just to fix that. If it's possible. I don't know how the system works I still need to find out.

In addition to her instructor's speed, Nathifa also faults his assumption-making about students' capabilities:

In math, uh, it depends on the teacher. … I know that they know the work, but they come to school thinking like I know everything I should know. And they treat us like – they assume we know everything. And they're trying to like – it's the ego, and it's like, "No." That first math teacher I had, he broke everything down to like fact – everything, you know. So it's like okay. Now I understand all this leads to that. You know, you're not really confused…. Or I'm either like, "I really don't get it. You're speaking a different language to me. Like I don't understand anything and I'm practically like – like an alien in your class." And that matters. It really does. It affects whether I'm a D student or an A-plus student, you know.

After failing his statistics course, Dian retakes it immediately the following quarter and earns a C+. This is an example of perseverance in action. Nathifa leaves the college due to unfortunate circumstances surrounding the incarceration of her brother.

A few students pointed out that the difficulty they had in their math course was caused by their instructors' non-native English accent. While there were several other accounts by interviewees of not being able to understand their professors in other subjects, math along with other technical subjects was by far the subject that the majority of such complaints occurred.

Hasan
Well, I can tell you the very first math professor, she wasn't good at all. She was like-- her English was terrible. Believe me, I couldn't understand most of it. I think she was Russian. I can't remember her name. And, she was always like in a hurry. She's always in a hurry.

Victoria
The [math] professor, you couldn't understand what he was sayin', [I]t's like "What are you saying?"

Diego and Nina reflected on the difficulty that they had understanding two of their non-native English speaking professors. Note that they also referenced their own non-native English accents.

Diego
Sometimes I have problems trying to understand what they say. Not in their teaching, but in their accents. Because *I know that I have an accent*, you know? But I remember I have my general algebra professor, …she's from China, I think. And she's got a very heavy accent. So I really have to pay a lot of attention to understand very well.

….

Interviewer
Can you give me an example of a not-so-good teaching moment?
Nina
Not so good – probably my statistic class. This professor – probably it was not his fault. I know that this professor was Spanish professor, but in my own opinion … I didn't do good at all in that class, but also it was very difficult for me to understand because, in my own opinion, he couldn't speak English, but he – you know. He was Spanish, I know, but he could not speak the English good, so I couldn't understand.
Interviewer
It would have been better had he spoken Spanish.
Nina
Spanish – oh, my God, yes! But I know it was not his fault. I understand him, but sometimes I said – *because I got my own accent*, *and I know that I make a lot of mistakes, and I cannot speak like an Latin*[11] *English American can speak*, but that's one of my concerns sometimes. If I'm gonna teach kids I need to be as clear as possible because not all the kids will speak Spanish so I can explain to them – whatever. But in this case, this professor – he was okay and everything, but I think it was very hard for him to speak the language, so I –
Interviewer
Was he frustrated?
Nina
I don't think so.
Interviewer
No, he didn't care? He didn't know?
Nina
I think he didn't know. I think he was thinking he was fine, you know, I guess. But for me, it was like, "Oh, my God!"

While Nina couldn't understand her teacher because he had difficulty speaking English, Diego suggests that students and professors from the same language background can understand each others' accents in English:

> He is Latin, like me, right? He is from South America. And then, I could understand his accent, you know? But some my classmates from Middle East, or my classmate from Brazil, I have one, for them I know it's hard to understand him sometimes. And I think it goes like that, because when I have my Middle East professor, they could understand him. My Middle East classmates, they could understand, but I couldn't.

---

[11] According to the context, the interviewee probably intended to say "native."

Math self-concept of math-successful interviewees

The few students in the sample who described being good at or enjoying math –nearly all of whom placed out of remedial math—presented a much different math self-concept than the former group. In most cases, students stated matter-of-factly that they "liked math" or that they were "good at" math with very little else attached to the subject. For those in technically focused majors (i.e., engineering, accounting) math skills were expressed as due course for the technical subjects they were studying. In only a few cases did a math successful interviewee elaborate on the subject of math. Note how Robert's positive math self-concept is woven into how he developed his future career goals:

> Basically right before I came to [NECC] I was thinking what are my interests? What do I like? What can I see myself doing? And I picked accounting because I would like to – I'm good with numbers. I like math and I would like to work in an environment where you have to come dressed in a suit every day and look nice, business type, and a 9:00 to 5:00 type job.

Jose and John connected their positive math self-concept to what they see as the disciplinary modality of math versus other subjects:

> *John*
> Yea, I'm good at math. Math, science, things that are a definite, you know formula, things definite, research, not just like, "Oh, what's your opinion of this and that?... English I have to work at, put a little more effort into it to make sure I do good. But the math, I don't have to study as much.
> *Jose*
> [With] math, I feel better because there's always a definite answer.

These math successful students find that it is easier for them to work on a subject where the goal is a definite answer unlike in other courses where they perceive the goals to be more vague or non-specific. Despite their professed abilities in the subject which poses most students the biggest problem, both Jose and John unfortunately left the college during the study period due most likely to chronic health problems (a head injury and anxiety, respectively).

Science courses

Interviewees' descriptions of their challenges in their science courses come in a close second to their difficulties with math. In many cases, inadequate performance in these course contributed to a critical juncture. Brief descriptions of these through the target semester are included in Table 4. Nearly all were majoring in one of the allied health fields (e.g. Nursing, Emergency Medical Technician, and Physical Therapists Assistant), most of which are highly competitive. To qualify for candidacy in many of these, aspirants must earn a competitive GPA in several key courses many of which are in the natural and applied sciences. Candidacy in these programs is typically awarded to those with the highest GPA rank in each program's "key" pre-

clinical course requirements.[12] Like most other community colleges, this is done based on the resources and size limitations of the lab science and practicum courses in these programs. In short, there are more students at NECC who make the minimum cut for such highly desired programs than can get in due to the lack of resources. This is also the condition for nursing aspirants nation-wide. Despite educating the majority of all nurses, community colleges do not have the resources to meet the demand for this high-paying and under staffed field.

Interviewees responded in several ways to failing or not doing well in science courses depending upon their degree goals and the length of time in their program. Paul and Cynthia remained dead set on making candidacy in their respective majors (EMT/Paramedic and RN) despite poor showings in science courses. Paul responded to failing *Human Biology I* by enrolling part-time the following semester when he retook the course and earned a 'C', a grade good enough for the paramedic program. Julia withdrew from *Biological Chemistry* due to its difficulty, but retook the class and made an 'A' in a subsequent semester.

Others who sought RN candidacy stubbornly persisted with that major's course of study though their grades in prerequisite courses clearly would not qualify them for candidacy. Cynthia earned a 'B+' in *Human Biology I*, but because of a 'B-' in *English Composition I* was probably not going to have a competitive GPA. She switches her major to the nursing certificate as a fall back plan, though still considered herself "on the waiting list" for RN candidacy. The program denied her nursing candidacy that semester, yet despite this fact, she moved forward

[Insert Table 4 about here]

with the coursework for the RN program, passing *Human Biology II* with a 'C' in spring 2008 and *General Microbiology* with a 'B' in fall 2008. Fortunately, she was admitted to RN candidacy that semester. However, due to her undocumented status, she was unable to receive financial aid and did not return to study college or any other college as of the spring 2009 semester.

Kathy also continues with nursing coursework despite not making candidacy in fall 2008. Though she made a 'C' in *Human Biology II* in the second quarter of fall 2008, she continued to enroll part-time in spring 2009, biding her time by taking credit courses in French, dance and voice. This strategy was not likely to help her because her GPA in the core courses was too low to ever be competitive for RN candidacy and these elective courses do not count for candidacy for the RN major. Beyond remaining full-time to continue to try for program candidacy, other possible reasons for Kathy's somewhat illogical course-taking behavior in order of likelihood may be: a) to continue to work as a lab assistant at the college, b) satisfy stipulations set forth by her parents who are helping to pay for her tuition, or b) qualify for public assistance programs which require full-time student status. Demonstrating the limitations of this analysis of Kathy's transcript beyond the interview semester, the true reason for students' ineffectual course taking behavior are not adequately provided by administrative data.

Like several other nursing aspirants who are unable to make candidacy at NECC, she switches to another local community college to attempt to finish her nursing associate degree.

A third response to low grades in their science courses was to adjust their degree and career goals, at least for the short term. Unlike Cynthia and Kathy, Violet changed her major to

---

[12] Depending upon the strength of the applicants applying for candidacy in a particular semester, this GPA can be as high as 3.8 for the Nursing program. This is despite the fact that the minimum cut off for the combined GPA in the pre-clinical courses for Nursing is 2.75.

the nursing practitioner's certificate because of a low grade in *Human Biology II* and moved forward with this choice in spring 2009. She claims that she couldn't make one of her exams for that course because of feeling sick that day because of sickle cell anemia and traffic. She reported that the professor had a "no tolerance" policy for being late to exams. In attempts to retake the exam, she talked with the professor and the department regarding what she felt was a reasonable explanation. However, the department chair said that the authority ultimately was the professor's and the professor did not let her take the exam so she earns a 'B-' in the course. Violet was not willing to retake the course perhaps because of her pride or unwillingness to give in to the professor. She was very upset in our interview about needing to downgrade her degree goals because she had A's in all her other classes.

Two other interviewees adjusted their degree goals because of less than adequate grades in their science courses. Farrah originally wanted to study nursing, but decided against this major in favor of Social Science after making a 'C-' in "Chemistry I." Carlos also changed his major from Vet Tech to Social Science after failing *Biological Chemistry*.

A fourth response was taking a science course over and over until passing with a 'D'. On the surface, this seems to be an adequate strategy, however it jeopardized more than one students' academic status at NECC.

Alicia

Alicia went to a 4-year college in a southern state right after high school. She studied hospitality management there for two years before moving to the local area in 2002 to be with her then boyfriend. She worked full-time in customer service occupation before returning to college at NECC in spring 2004 after her first child turned seven months old. She chose NECC because it offers a major in Dietetic Technician, something she was introduced to in her course of study at her previous college. She was only able to transfer six courses from her first college though she had earned 48 credits. This illustrates one of the major drawbacks of inter-institutional swirl—loss of credits earned. It has been estimated that 1 out of every three new college students will transfer colleges at some point. This adds up to a great deal of credits lost collectively and requires further investigation.

Alicia did very well her first semester at NECC, earning a 3.7 GPA. Unfortunately, she struggled academically thereafter. Her developmental math requirement and the science coursework in her major were particularly challenging. She mentions that her internships, being pregnant and caring for her growing family also compromised her ability to attend classes and to study. She stopped-out the spring 2006 and the fall 2007 for the birth of two children.[13] In spring 2007 she went part-time when her father passed away and remained so from spring 2008 onwards because the only two courses she needed to graduate were the *Human Biology I* and *II* sequence required by her major. Up until this point she had been going mostly full-time and receiving nearly the maximum financial aid award.

The *Human Biology* courses were particularly difficult for Alicia. Her strategy had been to stick out the first course to the end of the semester regardless of whether or not she passed:

> I was the type of person where I always wanted to try to stick into the class, and you know see if I could pass; because with my major, I just needed a D to pass. And I know how I am with science. I'm not striving for an A, because that's unrealistic.

---

[13] At the time of the interview, she was caring for three children of ages 5, 2 ½ and 1 on her own.

Unfortunately I stayed in there numerous times, and I didn't withdraw. Got an F; which has brought me down very low. I've seen a couple of advisors who basically said, "Well okay you need to pass [*Human Biology I*], at least get a D."

She passes *Human Biology I* with a D on her fourth attempt in spring 2008 and *Human Biology II* on her second attempt in fall 2008, also with a D. In explanation of why she continued in these science courses even though it was clear to her that she would probably not pass, she suggests that she has "withdraw issues." As further evidence of her issue with withdrawal—or alternatively as an act of help-seeking-- instead of dropping courses when her pregnancy made it difficult to come to school, she made arrangements with two professors to take their classes as independent studies. She found that these independent studies were "not like being actually in the class," and it made it difficult for her to do well on the assessments resulting in failing both courses.

There are two possible factors which contributed to Alicia's persistence. First is the fact that she probably needed to maintain a full-time load to receive the maximum financial aid. Though she reported receiving assistance from her children's father and her mother, the only work she reports engaging in is conducting catering jobs now and then. Therefore, financial aid was probably essential for her to remain enrolled. A second motivation may have to do with the fact that she had been in college for many semesters, both at NECC and at her previous college, and was trying hard to get out of school as quickly as possible. Considering the amount of investment, she may have reached the point of no return where not continuing was *not* an option. Even in the face of evidence that she might not make it through, this led her to pile hope upon hope that she might pass these difficult courses at the end of the semester.

I probe her about what makes these courses so hard. Her response:

I just cannot grasp the concepts that we're learning a lot. I mean I try to study and study and study. When it comes to the test, I don't know I just – I can't understand it. It's just very difficult for me.

She describes being more successful in the practical assessments in these science courses because these rely on rote memorization. She reports studying almost two hours a day on the science material in the interview semester. And, she reports reaching out to her professor for advice on how to study for the exams. But, when she encounters the multiple choice exams based on the lectures,

the professor is wording it in something that you don't understand – away from what you study; you're not going to pass as opposed to just looking at this and saying, 'Well I remember this is you know the patella,' or something like that.

Instead of having a hard time remembering what she studied and the actual functions of each of the features of the anatomy, she doesn't seem to understand what is being asked of her on the test (like Kavon). In short, the test turns out to be something very different that what Alicia prepared for.

This determination seemed to have worked against her in terms of continuing in a major which required a core of science courses. Further compounding these difficulties was her experience with depression, medical proof of which she brought to two offices at NECC in an

unsuccessful effort to have some of her failing grades converted to W's. In the end, following the suggestion of "a couple of advisors" that Alicia just shoot for 'D's in her key science courses and then trying to pull her grade up with some easy electives at the end of her college career backfires. When asked whether or not she did not consider changing her major, she replies, "nutrition… is the only thing I want to do." Despite having earned 48 credits at her first college and passing all of her degree courses in eight semesters at the college (seven of which she attended full-time) she was put on academic suspension in fall 2008.

Indira

A fifth and final response to poor grades in science or upper level allied health coursework was to transfer to another college. Indira made excellent progress in the nursing program at the start, but fell off very drastically at the end of her time at NECC and had to transfer. She started her college education as an international student at four-year college in a southern state in a science degree that would be prohibitively expensive in her homeland. She initially planned to return to her homeland after graduating and help support her parents. However, she changed her plans to nursing because it would be easier as a course of study, pay a salary that would enable her to help her parents – a very common theme for international and immigrated students—and because she became attached to living in the US, would allow her to stay in the U.S. more easily. Through online research about inexpensive community colleges in the local area and with some encouragement from homeland friends already living here, she enrolled in NECC in fall 2008 as a nursing major transferring only one course, English 101.

She did extremely well in her first year, earning a 3.7 GPA and was admitted to the nursing program on time in her third semester, fall 2007. However, because of a collusion of factors including her living situation, full-time job, and personal and family financial and health problems, she began to struggle academically. Her father, a poultry farmer in her near eastern homeland, had lost his entire stock due to the SARS epidemic. He developed health problems caused by worry and stress over his family's financial situation and a lifetime of heavy smoking. As a result, Indira, the oldest of six siblings on her own in the US, also began to worry and be stressed causing her an (unspecified) health problem. She could not afford to see a doctor and get proper care for her illness because she had no health insurance—a fact ironic for a nursing major. Above all, she needed to continue to work full-time at a coffee shop off the books— sometimes as much as fifty hours in a week in the summer so that she could have enough money to attend the next semester exacerbating her health problem. She could not ask her parents for money due to their situation and she could not relay the fact that she was having academic difficulties out of shame. Indira had been an extremely successful student in high school.

After becoming sick in the fall of 2007, she sought the advice of the international student office advisor who told her to stick out the semester because as an international student she must remain enrolled full-time each semester

> And I talked to him, "I don't know if I can do this or I need to drop the class," and he said, "You are doing okay. You are a 4.0 student, so I think you can do it. So don't feel stressed. So go through this semester and then we'll decide what to do." And then by the semester I was working like 35 – yeah, 5 days, 35 hours, and then I did this one.

I was sick, and in the class I was sleepy all the time. My professor used to tell me, "What happened to you? What's wrong?" So it was like everybody in the classroom knew that I was sleeping in the class.

She simply could not take a much needed break from school or even go part-time because it would violate the conditions of her visa.

Despite this, Indira passed all of her courses, earning a C+ in the first clinical course of the nursing major that semester and high marks in her other three courses. However, she could not continue to balance her personal challenges and working full-time with her school work. In each of the next two semesters, she failed an upper-level nursing course. It was during that semester that we held our interview and she was getting pressure from her housemates to move out because she was not paying her rent on time. Here's how she describes her state of thinking at that time:

So I was like, "It's okay. If I pass this difficult time I'll be okay because I'm doing good with my studies." But now I'm so stressed out that I'm like – this semester I was – I didn't really study until like the last week of the classes, last week of the deadline because I was not sure if I'm coming for this class. So – and then finally I had to take this [F grade] because I cannot take a semester break just because I want to take a semester break.

Indira leaves NECC as of fall 2008 after losing her nursing candidacy, but enrolls in a nursing program at another local community college in spring 2009. Both Kathy and Tricia had similar difficulties in their nursing courses at NECC and also left for other local community colleges. This response to their critical junctures--a lateral transfer--costs Indira, Kathy and Tricia precious academic momentum. They must transfer their credits and potentially retake classes as well as meet new and different course requirements. At least for Indira, had she been able to take a much needed semester break available at least in principle to most other students, she could have recovered from her health problems and remained at NECC.

Discussion

In terms of dealing with critical junctures caused by academic factors, the most effective strategies included retaking failed courses, dropping down to a part-time course load to have more time to study, and seeking tutoring or other forms of socially-based resources despite the "face" costs of such assistance-seeking. Other productive responses were produced when interviewees adapted to the realities of their capabilities and interests by readjusting their degree and career goals. Other perhaps more drastic responses which still allowed them to maintain progress towards their degree when they faced academic challenges were: stopping-out for a semester to "regroup;" continuing with their ideal course of study even though they were not doing well in "key" courses; retaking difficult courses until passing these with a 'D'; and transferring to other colleges when the latter two strategies did not work. The least productive responses were obviously to give up on their studies altogether, though we have seen that some who left the college seemingly never to come did in fact return after a prolonged stop-out.

Work and academic progress

Already alluded to in the proceeding findings, the types of jobs interviewees held and the number of hours they worked in a week significantly influenced the academic progress.[14] Quantitative data clearly demonstrates that working full-time is a risk factor for decreased persistence (Phillipe and Sullivan 2005; Levin, Montero-Hernandez and Cerven 2010). Table 5 presents interviewees distributed across three major dimensions of work which contributed to critical junctures caused by work for the fifty-two interviewees for whom adequate information about working was collected. Most of the interviewees were either employed full- or part-time (40% and 35%, respectively) before and/or during their time at NECC.[15] Most held jobs with standard full- or part-time hours; a few worked outside these traditional parameters, either upwards of 50 hours, a few hours per week or on and off, when they needed money. Thirteen interviewees (25%) were not working at the time of the interview. This is very much in line with national survey data on the amount that community college students in urban settings work per week (Community College Survey of Student Engagement 2008; NPSAS 2004). Those who worked part-time and studied full-time could be called "students who work" (Berker et al. 2003). And, those interviewees who worked full-time and studied more or less part-time could be called "employees who study" (ibid). Though, as detailed earlier, many interviewees' were double full-time (i.e., they worked full-time and went to school full-time).

[Table 5 about here]

The second dimension is the degree to which work was absolutely necessary for their own economic survival. Twenty-one interviewees (41%) described work (usually full-time) as absolutely necessary for their economic survival and sometimes that of their children or other family members as well. Eighteen individuals (35%) worked for other (non-mutually exclusive) reasons sometimes established in high school. The ranged from gaining freedom from their parents, having spending money, paying for college, helping their parents out with household expenses, sending money to parents back home, because the opportunity for a good paying job simply presented itself, or to gain work experience for a desired career. In the best case, working for these individuals resulted in stopping-out for one semester or more; in the worst case, it caused them to leave college altogether. A couple of interviewees for whom work was not an economic necessity did not connect the fact that working caused them academic problems. They either did not realize, admitted to or took advantage of the fact that they had latitude in how much they could work, realizing one or more of these facts only after stopping out or leaving college altogether. In most cases, these interviewees worked part-time and were younger and still living at home, although a few reported working full-time. In most instances, working part-time was viewed as preferable to taking out loans. All interviewees saw loans as inappropriate for financing an education.

---

[14] When an interviewee's work experience prior to the interview was related to current degree progress (e.g., the student dropped out because he or she had lost his or her job), the student's prior status was considered. For all other cases, the student's work status at the time of the interview was counted.

[15] Three people were not classified as working although they were engaged in work-related or economic activities. Pooran was participating in an unpaid internship in a commercial real estate firm. John had a small online business reselling sporting event tickets. And, Derrick was participating in illicit economic activities.

Age was also found to provide a useful explanatory factor in the amount and reasons for interviewees' working. Three age categories became salient in the analysis: traditional college-aged (17-22), near traditional college-aged (23-29), and non-traditional college-aged (30 and older). Traditional college-aged interviewees tended to work less, study full-time and live at home. Near-traditional college-aged interviewees often had some things in common with their non-traditional counterparts such as living at home and not having children. But, they also shared working full-time and being on their own in common with their older counterparts. That is, individuals in this group were in a transition phase between being what is thought of as a traditional college student to the truly non-traditional college student. There were significant exceptions to these categories. Five (20%) of the traditional college-aged interviewees worked full-time having taken on adult roles very early in life. A few of the interviewees in the two older categories indicated that they too had taken on adult roles at an early age. And, a few of the near- and non-traditional-aged interviewees did not work for various reasons including full-support from the government or husbands (it should be noted that all were women).

There were instances where interviewees managed the demands of full-time work, while setting aside enough time to study, by developing proactive strategies, utilizing time management skills and prioritizing activities. Some described limiting their socializing and spending habits; others described strategies involving enrolling part-time or stopping-out for a semester. These strategies were more apparent among those individuals who lacked other significant external constraints like children or family responsibilities—either by choice or by chance. Also, those who had more time invested in one job or field were able to benefit from their relationship with their supervisors in terms of work scheduling. Some were already working in lower level jobs in their desired career field (e.g., allied health services, education) or had completed internships before enrolling in college in these fields. This experience helped them see there college-going in a professional context. Those who reported working only part-time or not at all tended to make better progress towards their degrees, regardless of their academic background. These interviewees were almost always younger and still living at home.

Because the sample contains a disproportionate number of foreign born students, an interviewee's nativity (i.e., native born, native born 1st generation, 1.5 generation, or later-immigrators)[16] was also considered for its role in their attempts (and/or failures) in balancing work, life and school demands. Setting aside the age of the interviewees, there were sufficient numbers of cases among those who reported working full-time out of necessity to make a comparison of native born, 1st or 1.5 generation individuals to those who immigrated later in life after at least graduating high school and perhaps also having attended and and/or graduated college and perhaps even started a career.[17] A lack of participation by non-traditional college-

---

[16] Native born, 1st generation and 1.5 generation individuals (i.e., individuals who were born in another country but immigrated at some point during school age) can all be distinguished by the fact that they attended primary or secondary school in the U.S with some graduating high school and some earning a GED. For the 1.5 generation individuals, this means that they are more or less acculturated Americans and share with the native born far more cultural and social similarities than they do with those immigrating later in life. The latter graduated high school in their foreign homelands, and came to the U.S. with or without college experience or degrees. For these individuals, the relevant difference is the life experience they have accumulated (or are burdened by), which varies with age, and how this affects their ability to make adequate academic progress, either positively as in the case of those who have earned degrees and had professional experience, or negatively for those who do not have such experiences.

[17] Although international students meet the first criteria, they tend statistically to be of traditional college-age, not meeting the later (though two of the four international students who participated in an interview happened to be of non-traditional college-age).

age (again, those 30 and above) native born students suggests that future research should be conducted with native born students to complement and test these findings.

Working out of financial necessity

Traditional and near-traditional college-aged interviewees

Seven of the ten (70%) traditional and near-traditional college-aged interviewees faced difficult life situations as adolescents that required them to start working full-time at a young age. These early difficult life situations involved their families, high school or becoming pregnant. Dian, Victoria, Sandy, Lori and Juliana each dropped out of high school and all but Victoria left home at an early age. Dian and Victoria described themselves as falling into the wrong crowds, getting into trouble and leaving high school. While Dian left home, Victoria remained at home because of the traditional cultural expectations of her father. Juliana described herself as "just lazy "and that she "just stopped going" to high school. Sandy and Lori dropped out of high school because they became pregnant. Each mentions their effort to enroll in a local school for pregnant and parenting girls. Sandy eventually decided it was too far from her home and felt compelled to work full time to support her and her daughter. In one of many instances where the past repeats itself in interviewees' accounts, Lori was very interested in that school because it had been a great resource to her mother when she was pregnant with Lori. Unfortunately, Lori was not offered a spot in the school. Because of these life difficulties, all of these interviewees subsequently went to work at an early age and all but Victoria and Juliana remained continually self-sufficient. Victoria and Juliana lived on and off at home and they were doing so at the time of our interview.

Of traditional and near-traditional college-aged interviewees who worked full-time out of financial necessity, only Paul and Tanisha graduated high school. Paul eventually became estranged from his father and was forced to find full-time employment to help support himself. Tanisha had perhaps the most the most stereotypical path to college, having graduated high school and enrolling in a private 4-year college without any delay with family support. During her second semester at her first college, she became pregnant and her grades suffered as a result, requiring her to drop out. Her parents stopped supporting her college-going at this point, forcing her to work full-time to support her child as the father of her child was incarcerated.

Despite the early life difficulties and the necessity of working full-time, these individuals sought to better their life chances by either starting or returning to college. For all but Paul and Tanisha, this also meant getting a GED first. The burden of working full-time paired with other concurrent challenges (e.g., pregnancy, child care and child rearing) significantly hindered four of these six from making adequate progress toward their degree. Both Tanisha and Sandy experienced high-risk pregnancies during their first semester at NECC. Tanisha eventually had a miscarriage and subsequently lost her full-time job with the TSA because she could not find a babysitter for her first child. While Tanisha's loss of her full-time job is a primary reason for dropping out, the legacy of the debt that she still carried from her time at the private college prior to NECC from which she dropped out may also play a significant role in her decision to leave. Even though Tanisha thought of NECC as the only opportunity for her to continue her studies, the fact that she and her family owed nearly $10,000 in loans from the first college made her very wary of the cost, no matter how modest, of NECC. While giving up on her degree over

$361 seems like the straw that broke the camels back, however, it may in fact be a way of putting the blame off on the college as opposed to managing her disappointment of dropping out of yet a second college.

Sandy worked off the books full-time as a waitress and decided to live her dream of going to college. She earned her GED through the adult and continuing education program at NECC the summer before enrolling. Then, perhaps as a result of her physically demanding job as well as the increased activity of going to school full-time while raising her first child, her pregnancy became problematic. Her doctors put her on bed rest, making work and school impossible. Unfortunately, Sandy was not successful at proving to the college that her pregnancy caused her to leave the college. Therefore, she received all WU's and one F.

Lori

As a single parent of three small children, Lori was extremely intent on becoming a nurse although multiple difficulties as a result of her work led her to drop out during her second semester. During her first semester at NECC, she managed to put together a very effective schedule which involved 30 hours as a relief staff member at a residential home: "At the time I would just work 3:00 to 11:00 Friday, all day Saturday and all day Sunday just – and that was 30 hours. And then I had the rest of the week to myself to go to school." With that strategy, she did very well in her first semester. She passed both of her remedial courses with an 'A' and earned a 'B+' in a credit bearing course.

In her second semester, Lori received a raise at her job but because of the income guidelines for public assistance, the bulk of her public assistance was discontinued. Fortunately, she was able to increase her hours from that of relief staff to full-time employee, but this adaptation backfired. The increased time commitment of her job had dire consequences on her ability to continue at the study college. At that point she needed to find more child care resources for her three children. She struggled to create a patchwork of child support options, including the NECC child care program, to match her work and school schedule:

> So I had to find the babysitter and then it became too much; it was overbearing. Agencies[18] pay for 9:00 to 5:00 schedules. They don't pay for 3:00 to 11:00 schedules. So it kind of, when I did sign up for the permanent schedule, it messed me up 'cause I worked 3:00 to 11:00. And I was trying to maintain school, which I still was going.

Unfortunately, Lori found it difficult to get her children into NECC's child care program. Additionally, as a result of her increased income, her financial aid award was reduced by two-thirds. It was at this point that her work situation had already exacted its costs on Lori's time and energy and NECC's childcare program would have been the only college-located feature that might have prevented her from dropping out.

After dropping out of high school in a neighboring state, Juliana went "from job to job." During that time she had one child and later earned her GED in 2004 at age 22. In the following reflection, we hear Juliana account for her motivation for enrolling in NECC after seeing information about the veterinary technology program on the internet:

---

[18] The "agencies" Lori refers to is likely the public assistance program to help pay for childcare.

…it just came to mind that I wanted to do something with myself and I was like focused and I wanted to register into classes and start going to school before that – before the motivation just – you know how you just forget about it, "I'll do it next year," you know I didn't wanna stall anymore.

She was fortunate to have child care support from her mother and help with tuition and high transportation costs between her home state and NECC from her fiancé. However, the long commute, working full-time and caring for her daughter made studying nearly impossible. Even before her semester ended abruptly when she broke her ankle badly on an icy train platform on her way to the study college she described having serious academic difficulties. When asked what she would have done differently, she replies:

> I think I would actually work part-time on my job. Honestly. I think that's where I went wrong. Because just for the simple fact is I had a daughter, I was going to school full time and also going to work full time….I was unbalanced. I couldn't balance everything out correctly. So I would actually – I just spent too much time at work tryin' to do my homework and things on my breaks and things like that or too much time at school that I didn't have time for my daughter or actually trying to sit down and just study the way I was supposed to. You know I was unbalanced, you know, with no interruptions or things like that. I think that's where I went wrong.

Dian and Victoria

Of any of the six traditional college-aged native born, 1st generation or 1.5 generation interviewees, only Dian and Victoria were still making adequate progress toward their degrees. Despite working 55 hours a week as a bartender and having been completely self-sufficient since 15, Dian had remained enrolled full-time at NECC since 2006 except for one semester when he went part-time. As a result, he graduated in three years in spring 2009, if everything goes well with his five current session I classes. He voices skepticism, however, that he would be able to continue his business administration studies at Baruch because his GPA was near 2.5, less than the 3.2 he believes they require. Dian managed to make adequate progress toward his Associate's degree within the rather demanding parameters of his daily life, a result he and the college should be proud about. He might not, however, be able to meet his ultimate goal of transferring to a Bachelor's degree program at Baruch. Whether or not Dian ultimately made less than adequate progress is debatable, but should be considered.

After supporting her family during the period that her father was in jail for INS violations and making headway on a demanding, yet successful, career in the restaurant industry, Victoria decided to accelerate her progress toward her degree. She wished to reach her goal of getting a BA in hotel management and moving to Europe or Dubai more quickly. Because of her long-term employment she was able to negotiate with her company to bring her work schedule down to two or three days a week so that she could go to school four days. She was required by her supervisor to take one "graveyard" shift a week to make this arrangement acceptable. As a result of this less intense work schedule, she had consistently been able to make 'A's' since returning. In another example of the past repeating in interviewees' narratives, however, her mother was arrested three weeks prior to our interview by INS for the same immigration violation as her father. She maintains that, having learned from the experience with her father, she had the

situation under control, and it won't affect her studies. Hers was a hard won sense of self-efficacy and we should only hope that this event is, as a result, not going to act as a setback for her academic progress.

The three remaining traditional and near-traditional college-aged interviewees, Murat, Indira, and Tensing, were all self-supporting later-immigrating students with Indira and Tensing being international students. Murat's strategy to support himself and send home remittances to his family was to take off every other semester and work full-time to save enough money to go to school the next semester full-time. This strategy appears to be a good one as Murat continues to make adequate progress toward his degree. Tensing and Indira both come from the same far eastern country faced with continuing political and economic turmoil. Both relay stories of needing to be self-sufficient and hiding their academic and financial difficulties from their parents while they were in the U.S. They both report not being able to ask their family for help because it would violate some sort of cultural expectation that they would go out on their own and be successful and eventually help their financially struggling parents. Tensing worked part-time on campus in a job permitted by his student visa, but, because of financial difficulties, he must enlist the assistance of a doctor to forge a back problem so that, like Murat, he could stop out for a semester and work full-time off the books. Only by using this strategy was he able to afford his living expenses and his full-time non-resident tuition.

The majority of younger interviewees who needed to work out of necessity relayed accounts of struggling to balance the demands of work and family in their attempts to make progress toward their degree. Many took on adult roles early in life including full-time jobs, supporting themselves and their children. Some managed to balance the demands of work and school with various strategies (i.e., Murat, Dian, Tensing, Victoria), while others faced nearly insurmountable train wrecks. These involved the necessity of working full-time and academic, administrative and health problems that left them with no other choice than to leave the college (i.e., Sandy, Lori, Tanisha, Indira, Juliana, and Hasan).

Non-traditional college-aged interviewees

In contrast to the traditional college-aged interviewees, a majority of those in the oldest age category relayed accounts of better management of their family-work-school balance. Because they had already established adult lives-- in their homelands or in the US- including such things as families, careers, and sometimes postsecondary education, their accounts contained evidence of a greater sense of self-efficacy, an ability to prioritize, plan and manage difficulties. Although needing to learn English for some meant that progress in establishing their second adult lives in the U.S. was slow and certainly modest in comparison to what they had accomplished in the homelands, they were proud of their perseverance and ability to more or less make adequate progress toward their degree at NECC. For several, however, work responsibilities hampered both their ability to learn English and make adequate progress toward their degrees.

Nearly all of the non-traditional college-aged interviewees immigrated as adults. Both at NECC and nationally, foreign students do better academically than their native-born colleagues. While the findings here might help explain the differential academic progress of foreign born students, the low numbers of native-born respondents in this age group prevents us from fully exploring what it is about being raised abroad that improves academic progress. However, those raised abroad offer descriptions of more rigorous secondary school experiences and social and

cultural expectations for behavior which may differentially benefit both the 1.5 generation interviewees and those who immigrated as adults. A future interview study of native born students might be conducted in order to explore which native and non-native experiences matter for college success.

Not surprising given their age, the students in the non-traditional college-age category almost universally described needing to work full-time out of financial necessity to support themselves and sometimes children and extended families. Some could only come to NECC because they qualified for financial aid, while for others financial aid was not possible because of their undocumented legal status, requiring even more than full-time work. For nearly all the interviewees in this age category, work tended to play a central role in their narratives about remaining engaged with college and making adequate progress.

Like many in the younger age categories, work acted as an extrinsic motivation: they viewed getting a college degree as a way to get out of menial jobs and careers, which they saw as a step backwards from where they had been in their homelands. They also expressed sources of intrinsic motivation such as interest in learning, speaking and understanding English better, and working in more meaningful careers, such as physical therapy, nursing, education or veterinary technology. Nevertheless, continuing to work in their current jobs also substantially hindered some in their ability to make adequate progress toward their educational goals, a catch-22 we see over and over again in the interviews.

As mentioned, a defining feature of many non-traditional college-aged interviewees' accounts was their need and struggle to learn English in order to make academic and career progress. A few struggled to such a degree to learn English and pass their basic skill requirements that they eventually because frustrated and gave up. As we will see, whether or not their jobs required them to use English played a significant role in how rapidly they learned English and subsequently their ability to make adequate progress in school.

Case Group #1: Academically striving late-immigrators

Socially based resources, interpersonal skills and past educational experiences played a particular role in the ability of Nicolas, Lyndell and Francois in making adequate progress toward their degrees. They described their efforts to prioritize their life responsibilities such as needing to work full-time and adjust their degree goals in light of various roadblocks to their original degree and career goals. Three had earned college degrees in their home countries before coming to the U.S. which provided valuable resources in their quest toward their degree goals.

Nicolas

Nicolas had spent some time in a business administration degree program in his Latin American homeland before becoming in that subject because of its emphasis on profit and money. He took the opportunity to come to the U.S. on a five-year work visa in 1999. He was fortunate that his boss of many years sponsored his eventual application for citizenship, after which time he decided to go back to school, but to pursue a more meaningful career as a physical therapists assistant (PTA).

Several factors played a role in Nicolas' ability to satisfy his basic skills requirements on his first try and eventually make PTA candidacy by his fifth semester. First, while Nicolas' worked in a dead-end job in a semi-skilled trade, it was both a stable job with a flexible schedule, supportive boss and a setting that required him to speak English on a daily basis. Second, his past experience in college along with his brother's experience and example as a successful college student provided him with the cultural capital he needed to plan and be persistent. Third, he had several years to reflect on his educational and career goals and craft an approach that would be efficient and successful. The greatest example of his ability to strategize, prioritize and plan was evident in Nicolas' ability to time milestones toward his degree. Initially, he waited until he was a citizen before applying so that he could get financial aid. After enrolling full-time for two semesters, he went part-time in order to make good enough grades to qualify for PTA candidacy the semester after our interview. After making candidacy, he told me of his plan to quit his job and to take out loans to support his full-time enrollment until graduation.

Lyndell

Lyndell, a native English speaker, had a more than decade long career as a nurse's assistant in several Atlantic island countries before coming to the local area to be near his parents who had recently immigrated. He did his research well in advance and took the NCLEX even before moving to the U.S. and quickly found employment in a hospital. In that his original nurse training would be considered more at the vocational level relative to U.S. standards, he came to the realization that he would have to complete a Baccalaureate degree in nursing to get where he wanted to go professionally in the U.S.. An advisor in the nursing program at a local 4-year college suggested that the best way for him to get into their program was to complete 21 credits at a community college before transferring, because he had a foreign high school diploma, and his original nurse training may not have been in line with the U.S. higher education standards.

Lyndell originally contemplated enrolling in a different local 4-year college after being accepted, but the commute would have been too difficult from his job. In order to earn the 21 credits necessary to transfer to his preferred local 4-year college, he chose instead to enroll in NECC because of its convenience to where he worked and to his home. In order to achieve a high enough grade point average to assure him admittance into his preferred college's nursing program, Lyndell made an intentional decision to go part-time after his first semester. He also described declining a nursing manager's position at his current job so that he could concentrate on his studies. He recognized that the nurse manager's position was a low hanging fruit that would only defer his educational and career goals. He was clearly focused on getting his baccalaureate in nursing. He even mentions the possibility of getting a masters degree in public health, but he also said that he was "kind of getting tired of the studying." Like Nicolas, Lyndell's work experience as well as his prior college experience played a pivotal role in his ability to stay on target with his degree. He researched his options extensively, speaking with administrators at both NECC and the 4-year college to find the most expedient and affordable avenue toward his degree.

Francois

Francois originally came to the U.S. as a tourist to visit friends after being a secondary school teacher for seven years in a French speaking African country. He eventually tired of

being a teacher and came to the U.S. to visit some friends and learn English for a short period of time. He overstayed his visa and found a restaurant job while taking English classes at a local propriety language school. After working 50 or more hours a week for several years at his restaurant job and even pedi-cabs on the side, it dawned on him that he did not want to continue this sort of work and was drawn back to college. Francois found out from a friend that NECC had the "best" nursing program and he visited the campus twice and enrolls because he liked the "multiracial" atmosphere. Like many late-immigrating foreign born interviewees, Francois earned a GED on his first try right before enrolling full-time in the study college in fall 2006 as a nursing major.

Francois described the absolute necessity of working more than full-time hours to pay for both his expenses and foreign non-resident tuition. He could not qualify for financial aid because of his undocumented status. He worked a double shift on Friday nights both because his boss required him to do so and because the time-and-a-half pay rate for his overtime was the additional money that he needs to afford his tuition. Like Nicolas, Francois dropped to a part-time load after his first year in order to make good enough grades to get into the nursing program. Even if he could go full-time, his boss was not very flexible in terms of allowing Francois to work less than 50 hours a week. He became a permanent resident by the start of fall 2008 and was able to pay instate tuition and applied for financial aid but did not qualify.

Francois did quite well each semester, earning two A's in the first two credit bearing courses he took. Despite his progress, he begins to rethink his plans to major in nursing because he realized that it would take a long time to make candidacy going part-time and, once he did, he could not quit his job to go full-time. During his 5th semester, a friend he made through his nursing program told him that "you can't work" when you go full-time in the nursing program. He also learned from this friend that he could enroll instead in the LPN certificate program which he believed would allow him a more feasible route to NECC's nursing program. He intends to go part-time while earning his LPN certificate and then after graduating, finding a full-time position in a hospital. He had heard that hospitals may be more flexible in terms of allowing LPN's to go back to school to finish their RN degree and that "even the hospital can pay for your studies or whatever." He was very committed to this route, enrolling in the core biology course for the RN degree in fall 2008, a course which was not required for the LPN certificate. Once he came back to the study college as a nursing major, he would have this very difficult core course out of the way, speeding up his time to candidacy.

Francois' decision to switch from RN to LPN was his way of managing the Catch-22 Nelson planned to avoid by taking out a loan to support himself while he went to college full-time for his last year and a half. On the other hand, Jean changed his major to LPN in order to get out of his restaurant job and find a job in a hospital which he believed would provide more flexibility in terms of schedule and support in terms of transferring to a nursing program.

Prior college experiences, information gathering and networks, goal commitment along with delayed gratification and the ability to balance work and school factor heavily in the ways these four non-traditional aged immigrated students were able to make adequate progress toward their degree. It was worth mentioning a couple of other factors which may have also allowed these individuals to better balance their priorities and be successful. First, Francois, Nicolas and Nina, who needed to learn English from the beginning, worked in jobs that required them to speak English. By doing so, it forced them to improve their English in a way not experienced by their foreign-born peers. In the next section, we will contrast this advantage with the challenges faced by late-immigrating interviewees Maria, Celeste, Edward.

Second, attention to their physical health played a role. Francois and Nelson exercised regularly and were very physically fit. In high school, Francois wanted to play soccer as a career and was even selected for the national B team for his country. Nelson reported that he liked going to the gym (where he saw a poster about a career in physical therapy). Lyndell and Nina did not indicate a passion for physical fitness, although each appeared to be very fit. For these individuals, physical fitness may have acted as one of the important balancing agents in their lives.

Third, each of these individuals was not responsible for supporting children and family. While having children or supporting family may provide significant motivators to pursue a college education, the lack of these responsibilities may played a pivotal role in their capacity to manage their work-school balance. Relatedly, Francois reports that he broke up with a girlfriend because she prevented him from doing well in school. Nina also in a sense a member of this case group reports not being in a relationship. While romantic relationships are certainly a sources of support and security for young people on their own, the absence of relationships may also allow more time for the pursuit of education and career goals. In this sense, students probably also need to assign a thoughtful priority to romantic relationships, but more research would be needed to establish this.

Case Group #2: Academically struggling late-immigrators

Six other late-immigrating interviewees were not as academically successful as Nicolas, Lyndell, Francois and Nina. While most of the six also had prior college and work experiences, they had difficulty managing the relationship between their full-time jobs and external responsibilities in their attempts to make adequate progress toward their degrees. For three in this group, Maria, Celeste and Edward, the necessity of work paired with difficulties learning English posed a particular challenge for these interviewees' ability to make adequate progress.

Maria

Maria emigrated in 1993 along with her husband and young daughter from a Latin American country in order to give her daughter a better life. She described that the difficult political situation in her country paired with the low pay of being a police officer contributed to their decision to immigrate. Like one of many immigrated interviewees who did not understand that they can go to college without a green card or citizenship, she waited until she gained citizenship before enrolling in NECC full-time as a paralegal major in fall 2007.

> *Interviewer*
> Well, between 1993 and 2007 that's quite a few years that you were out of school or you were working, you were raising your daughter, that sort of thing. What brought you to [NECC] in 2007?
> *Maria*
> Because I was citizen – citizenship in two years, three years. That is why.
> And after that, I still waiting for four years, and you know, I have my citizenship now…. This is why I start to study, but before I don't have any idea if I can go to the college if I don't have paper or the legal situation, you know.

Interviewer
Well, as a foreign resident you can go to college. You could go to school if you had a visa. You know, if you had a legal status you can go to school here.[19]
Maria
Yeah. Now I know. Now I know. Now because I have spend more time here talking about one person, the other, the teacher….I have open mind. You know, before, you know, I stay in the house, working in the house. My daughter, you know, all this….It's different world. Now I is here I discover many, many things. Now I know. I lost many, many years you know.

She chose the paralegal major because she planned to study criminology at a local public 4-year college, a natural choice because of her police background (ex. *career and educational planfullness)*. Her freshmen seminar advisor advocated taking 24 credits at NECC before transferring.

Maria worked as a kind of superintendent for a house of worship, doing cleaning and sometimes preparing meals for community meetings. Before she began classes, Maria asked her supervisor if she could be flexible with her schedule. At first her supervisor agreed to be flexible, but after a few weeks told her that she had to work regular hours. As is now clear, this is a common theme with the interviewees, and is one which depended on the power balance between the employee and the employer. Maria had to drop down to a part-time load. She also stopped-out during her second semester to attend to a family medical emergency in her home country.

Her struggle with English (clearly apparent in our interview) hindered Maria from making significant progress on her degree goals. She did not speak much English on her job and did not know to take advantage of the ESL program at NECC. Even if she was successful in her remaining courses, it would take her two more years going part-time to accumulate the 24 credits she needed before transferring. Fortunately, Maria described receiving support from her husband and her daughter to pursue her degree.   Her daughter attended the study college at the time of our interview and reported that they studied together. The potential of intergenerational transfer of her daughter's English skill to Maria may be an asset to her in learning English, though it is most likely that the *lingua franca* of their household will remain Spanish. Despite significant things going for her, Maria discontinues her studies after fall 2008 after failing two developmental English courses.
Celeste

Like Maria, Celeste struggled to learn English and had a hard time describing her experience in English in our interview. A nurse for many years in her Latin American homeland, she moved to the U.S. several years following her parents who followed her brother to the U.S.. She was caring for two school-aged boys with the help of her extended family and was the sole stable bread-winner in a household of nine. (The pending birth of her sister in-law's baby to make ten). She intended to complete the nursing program at NECC to again work as nurse in the U.S..

---

[19] In actuality, individuals can enroll in the study college even without legal status. The one benefit that legal status brings, however, is the ability to qualify for financial aid and that is perhaps the reason for such individuals' attempts to gain full legal status before enrolling.

Despite this success in her homeland, Celeste contends that her English ability poses a very substantial challenge for her success in the U.S.:

> …[O]ne of my objectives is learn English, but not only because people say, "You are looking for a second degree." It's not only — I would like to can express what I feel, help to my childrens in the school, get information about how they are doing, help to my parent to translate one letter, now many things in this country. But the situation means that I must for to do something with my ESL because I know one program in [NECC] helped a student for, in my case, for nursing, to get to learn that exam, to give that exam in the…this state and get a license like a nurse and work. That is what I would like to take, that course, but I must to do an [ESL course] that I'm probably lost[20] because teacher told me I'm doing bad — weak. *Weak.*

In this passage, we are witness to the many extrinsic motivators that drive Celeste to learn English and become a nurse in the U.S.. This would not only allow her to help her English-poor family with logistical issues (i.e., translation). It will also increase her capacity to support her two sons and large extended family: "if you have that language, you can do further things and can help — most of the people you can help."

If Celeste can get her U.S. nursing degree she has the potential to help our her family substantially. Thankfully, Celeste can count on a great deal of logistical and some financial support from her family. She could afford to work part-time and she reported that her parents helped care for her sons. Her father would even meet her at the train station in between school and work to give her some home cooked food for dinner. As a result, Celeste consistently took advantage of English tutoring at the college studied five hours a week. In addition, one of her sons attended a school located on NECC's campus, a proximity which was very valuable as she needed to maintain close contact with her son's teachers and disciplinarians after he began acting out.

Despite the support of her family, long term planning and successful adult experiences from which to draw confidence, a change in a state financial aid policy apparently derails Celeste's degree progress. This new policy stipulated that in order to qualify for state aid, aid which she depended upon to attend, applicants with foreign high school credentials must pass all three skills placement exams and an additional writing exam. In our interview Celeste expresses happiness that she passed the reading test (she was exempt from math), but seems despondent that she will not be able to pass the writing exam despite taking a test workshop. She fails the exam on her second try and was required to pay back $800 in state financial aid awarded to her in fall 2007. She describes needing to pay the money back "like when you try to fly and somebody catch you, I feel like that." To maintain her status with the college, she stops out during the target semester to find a better paying job in a chain pharmacy as a receptionist to make enough to pay back the award. As an added benefit, she "feel[s] good" that she needed to speak English at this job as it forced her to learn more quickly. She returns in fall 2008 part-time without financial assistance. Like Maria, she fails her ESL class a second time, yet reregisters for and withdraws in each of the following two semesters (spring 2009 and fall 2009).

Though she seems to have discontinued her studies, in our follow-up interview she reports that her inability to pass the two writing exams as well as her ESL course leads her concentrate on a career in pharmacy technology. She enrolls in a non-credit pharmacy

---

[20] "Lost" is a mis-translation from the Spanish verb *perder* which means both "to lose" and "to fail."

technology certificate program offered by NECC's continuing education division.[21] Her voice is tinged with melancholy as she responds to how she feels about the change in her degree and career plans. Like many other late immigrators who needed to learn English, the practical realities of their limited English skills and immediate need to earn money contributes to their decision to discontinue their degree studies for a quicker solution. However, in Celeste's case, her professional background in nursing along with ample support from her family, help-seeking and adaptability appear to have led her into a different, yet potentially stable, direction.

Edward

Edward's decision to leave the college is not only precipitated by his stagnant progress in his English skills, but also his job schedule. Edward emigrated from a Latin American country as an adult, but did not have any prior college experience. His job as a construction laborer, evidenced clearly by his soiled work boots and jeans and callused handshake, motivated him extrinsically to pursue a college degree to become an architect. This work setting did not, however, provide him with an opportunity to learn English on the job like Celeste and Francois. Demonstrating foresight and the access of socially based resources, he started towards his college journey by taking ESL classes at a local 4-year college as well as at NECC, and enrolled in fall 2004 initially as a fine arts major. He attended his first semester part-time but changed to full-time the next three semesters. He also changed his major in the following spring semester to mathematics evidently because it would prepare him better for architecture.

Even though his daytime work schedule allowed him plenty of time to make his evening classes, his boss would occasionally require him to work late, compromising his ability to make class:

> My schedule back at work is the regular time. I start by 7:00 and finish by 2:00. Every time when I start to study, I talk to my boss. I ask him for permit. You know, I know I go to study English, say, "Okay, take your time." I started, but you know, business is business, and money is money, and the time when the boss need you, you have to be — you have to be there.

Again, we see the offer of flexibility on the part of a student's boss rescinded. Although Edward did not do well in his basic skills classes, he was persistent in retaking classes he failed. Nevertheless, missing class because of his boss' inflexibility begins to take its toll. In his second fall semester, he missed a couple of classes with permission from the instructor, but afterward "I couldn't catch the class because they move the class and they don't put in you know some kind of sign or something like that." He contended that the class was moved on the first day, and that he received permission to miss the class, but because he didn't follow up with the department to find out where the class was meeting, he just stopped attending. He fails the course (with a WU) and because he was unable to repay the financial aid, he could not apply for the next semester leaving NECC for three semesters.

---

[21] It is likely that a certain percentage of individuals like Maria who drop out of degree programs at community colleges find their way into non-credit programs. Though these individuals are engaged in post-secondary workforce training, they are counted against community colleges in terms of calculation of retention and graduation rates. Without attending the community college in the first place, these former students might not have been exposed to more suitable, or at minimum, more pragmatic, educational options.

Demonstrating perseverance, he pays back his award and returned in fall 2007 changing to Fine Arts because he found math too hard. However, his problems with getting to class continued. He again spoke with the instructor of the speech class, and, although he reported that the instructor understood that he would be late some days, the instructor reneged on this arrangement, giving Edward a 'F.' Edward reported that the instructor was not flexible and that the counselor he went to see about having this course dropped supported the professor's decision because "he have to follow the rule — the college rule, and the college say if you have so many hours, then you lost a class. But I say, 'But, I asked for permission!'"

The variability of Edward's work schedule clearly took a toll on his ability to make class. An additional factor was that between work and coming to class, Edward was left with very little time to do homework. He did report coming to math tutoring and described his study habits as approaching one or two hours a day, but that did not seem to be enough for him to make progress on his English skills. The final straw appears to be his frustration over the teaching methods in an ESL course which he failed for a second time in fall 2007. After that experience, Edward left the study college.

A point that emerges from that accounts by Celeste, Maria and Edward is that going to college part-time for late immigrating English language learners may not produce the necessary momentum needed to learn English adequately. That is, a certain intensity of exposure to English in class, supplemented by exposure at work and possibly at home, may be required to continually improve an adult's English skills. Otherwise, the pace of one's English learning may stagnate, becoming detrimental to one's sense of accomplishment and efficacy and ultimately one's commitment to a degree.

Jasmine and Hasan: Legal troubles at work

Out of all of the non-traditional college-age interviewees, Jasmine's experience with her job is probably the most egregious. Jasmine graduated from a three year secretarial school in her Caribbean island homeland and worked for about five years as a secretary at a phone company. She then visited her mother here in the U.S. and decided to overstay her visa to live near her and all her extended relatives and, as common with many late-immigrators with children, to give her daughter a better life. She took a job as a secretary and eventually enrolled in NECC, but her boss took advantage of her undocumented status, paying her late and sometimes with bad checks. She also described him as verbally abusive and jealous of her college attendance. (He was eventually arrested for defrauding his employees.) Jasmine needed to discontinue her studies because she could not continue to afford the high foreign non-resident tuition. Despite working full-time, Jasmine reported being a very committed student and earning B's in all of her basic skills courses.

Hasan, a later-immigrating student of near traditional college-age, also had difficulties with his employer. During our interview he was on an administrative leave from his job because of a long standing legal dispute with his employer. His employer forced out Hasan and his coworkers who had voted to join a union. Hasan then took legal action and the subsequent administrative leave. (This dispute was verified through information available on the internet.) From the following passage we can understand Hasan's reasons for leaving NECC:

I felt I had to quit it. I had nobody to support me financially. I just had to quit the school. And, then, it so happened that I have not came back since because of the stress of

my job and now I'm having so much problem in my job I'm going to have to take them to court because I don't know what's going on with my job. My boss is giving me so much stress I just can't focus anymore.

Hasan's problems with his boss clearly had him agitated during our interview and he even cut our interview short because he got a call from his lawyer on his cell phone. Like his native born and 1.5 generation counterparts, Hasan was financially on his own (although he shared an apartment with his sister who provided comfort and counseling during this difficult time) and when faced with a stressful work issue, he set aside his studies in order to cope with the situation.

Working for reasons other than financial necessity

In contrast to those who reported needing to work out of financial necessity, seventeen interviewees supplied other reasons. Most nearly always worked part-time and, except in a couple of cases, were traditional college-aged. The reasons that emerged through the interviews with these individuals were:

- working out of habit (i.e., since high school)
- to have their own spending money
- to help out with family expenses
- to get work experience for their future careers
- to defray or pay for the cost of going to college so that their parents don't have to
- their job only offered full-time hours.

Two things may support the notion that working is in some senses optional for individuals in this group. First, accounts of job loss, at least for those working part-time, were not universally associated with needing to leave school. Most were traditional college-age, and most lived at home and reported receiving at least a modicum of family support for their education and sometimes a great deal more. Whether they felt that they could ask for more help from their parents or were willing to sacrifice making money for their school are bridges they needed to cross to continue.

Second, those who worked full-time and as a result struggled to make progress reflected that if they had to do it over again, they would have worked part-time. To what extent was their college degree goal hampered by the low hanging fruit of immediate, potentially optional, and yet occasionally substantial economic gain? There appears to be a teachable moment here where colleges could educate students about the relative benefits of reducing the amount that they work so that they can increase their chances of earning their college degree and earn even more money down the road. While there may be substantial barriers to this in terms of cultural expectations, personal pride and familial power and politics, the effort it would take to help community college students overcome these is nonetheless preferential to failure.

Case Group #3: Working full-time, "getting the money"

Shannon

Among those for whom work was not a critical financial necessity, four worked full-time "getting the money" as Shannon put it to afford spending habits established before coming to college as well as to help defray the costs of attending college for their parents. Shannon started out her college career at another local community college after high school because the college was close to home and a friend from her high school was also going there. She found college "pretty scary" and she was "indecisive" about what she wanted to major in. She started out as a nursing major because her father wanted her to study nursing but found the science coursework too difficult. She was unable to pass any of the math or biology requirements and after two years going full-time as a nursing major, she switched to Liberal Arts. Her performance in the humanities and English courses was bi-modal: she earned more A's, B's, F's, WU's and incompletes than C's or D's in these courses.

She felt that she did not do very well at her first college because she skipped classes with her friend and because she found it difficult to find energy and time to study while also working full-time as a copier at a law firm. The latter was particularly the case when she had to wake up early after a long work day: "So I would not study for long, basically. I would read something, but it would not make sense to me. And I'd try to reread it, and I'm like, 'You know what? Forget it. Let me just sleep. I'm already exhausted.'"

In the following exchange, Shannon came to terms with the fact that her grades suffered as a result of her job:

> *Shannon*
> I'm so focused on like *getting the money* and paying bills I have, so that was my main focus. And I know I have to go to school, but I wasn't too, too focused on it. That's why my grades were slipping. But I guess if I can do it all over again, I know I can get A's and B's, I know that.
> *Interviewer*
> [A]t what point did it occur to you: "If I were working only full-time[22], I might be able to do it." At what point, do you remember?
> *Shannon*
> When I got suspended from [SCC]. Even though that should have been "Duh," my point, like, I should stop working full-time, but, still... I still need the money. I still do.
> *Interviewer*
> What did you need the money for?
> *Shannon*
> Because I had my bills to pay, and also I still wanted to help out paying half of the tuition. So I said, "If I go part-time, I get less pay." So I mean, I wasn't making much on top of that, but at least with full-time I have some money to pay for half the tuition, my bills, and still have a little bit in my savings, and some pocket money for me.
> *Interviewer*

---

[22] While the interviewer says "full-time" here, "part-time" was meant, and the interviewee apparently corrects for this as a result of the context.

Right.
Shannon
So even though I knew that I should go part-time, I didn't. Because I was so focused on *getting that money*, but yet I was still focused on finishing school.
Interviewer
Right. Sounds like you knew, but you couldn't change the sort of situation, like you had sort of a set path?
Shannon
Right.

"Getting the money" was a priority for Shannon, one that supplanted going to class and having time and energy to study. She listed several purposes to which she put the money, but the one that had the most complex origin seems to be helping to defray the burden on her parents by paying her "portion" of the costs. At one point, she mentioned not wanting to "waste [her] parents' money" by studying to be a nurse. At another she confided that she did not tell her parents that she was not doing well in her courses. It appears that Shannon had some sort of motivation to prove both to herself and her parents that she could help pay her way. Or, perhaps feel a responsibility to pay her share if she did not do as well as her parents might have wanted her to. Either way, her interest in not burdening her parents contributes to her working full-time which came at a cost to her academics.

Could Shannon have asked her parents for more financial support instead of working full-time? On the one hand, she described paying her share as "helping out" and as a family they found the tuition at both community colleges to be reasonable. On the other, her parents seemed to being doing okay financially, making more than would allow her to qualify for financial aid. Moreover, all her older siblings were out of school and not living at home. Without admitting to her parents that she was having difficulty, they had no opportunity to cover all her tuition costs so that she could work only part-time and have more time and energy for her studies. Or perhaps she could have scaled back on her spending to invest more into the long term pay off of her college degree. As a result of her poor performance, Shannon was suspended from her first college after the fall 2005 semester. She transferred to NECC in fall 2006. Of the 14 credit courses she passed at her first college, she was able to transfer eight to her third major Social Science.

In a classic example of the past repeating itself, Shannon continued to work full-time while enrolled at NECC, failing to connect the dots regarding working full-time and her poor performance in school. She squeezed by each semester maintaining a 2.0 until her third semester when she took 17 credits in the first session and earned 2 D's, bringing her cumulative GPA under 2.0. After the end of the spring semester, she consulted her degree audit and believed that she had passed all of her degree requirements. Thereafter, without registering to graduate or seeing a counselor, she moved "down south" where her parents had moved, an ill-informed decision on her part.

What happens next is both confusing to her and staff and faculty at NECC and after an initial account was shared with advising personnel, spurred new policy and a technical intervention. Shannon registers to graduate in the fall of 2007 through the college's web-based electronic registration system, after which she consults her online transcript in March to see how things are going: "Then next thing you know, I see like one or two classes pop up, and I had to call someone and they told me that I would have to come back and finish." The courses that

"pop up" are the required biology course she failed in her last semester, as well as two new courses added to her major after her initial year at the college.

Instead of pursuing further the true source of the misunderstanding to find a solution to her problem, she relies on her dogged determination:

> *Interviewer*
> Did they give you a reason why these new courses sort of suddenly appeared as requirements for your degree?
> *Shannon*
> No, not really. The person who I spoke to, she really didn't know why. So I said, "Alright, well I know what I have to do." Instead of getting upset I said, "You know what? Let me just come back to [local area] and finish out these courses." And then when I got a hold of the new academic booklet, I actually saw the new courses there. So I figure, okay, these must be the brand new courses – because I know they're always adding on courses to degrees to finish. So I said, "Okay." But I felt that someone should have contacted me instead of me having to – I know it's my responsibility to look as well, but someone should have contacted me beforehand so I could at least have started in spring of '08 to finish.

Had she talked with a counselor, Shannon would have found out that new courses can't be added to a major in progress. But, when students change majors, new courses can be added because their catalogue year is changed to the current year. This is what happened to Shannon though the inadvertent collusion of a technical flaw in the college's student data system and procedural oversight. Because NECC shares a registration system other same-system colleges, students are first assigned a three digit place-holder major code ending in '0'. Each individual college is responsible for changing this code to a college specific code. This does not happen automatically, however. Either a student or an advisor needs to change the major code in the online system at some point before graduation.

When a student registers to graduate, counselors in the Office of the Registrar review that student's transcript and if it has not been changed previously, assigns them the appropriate college specific major code based on their course of study. However, the student information system automatically resets a student's catalogue year to the current year when their major code is changed. It is up to the counselor to recognize that this change will occur and to manually change the catalogue year back to the student's original year when they update their record.

The counselor who reviewed Shannon's transcript changed her major code but did not undue the change to her catalogue year (from to 2006 to 2007 and back) after assigning her the appropriate major code. Thus, her program of study automatically updated to include two additional courses that were legitimately added to her major in a later year. Though she doesn't see a counselor, she does go to the chairperson of the department hosting these two new courses to find out why this course is now required of her.

> And when I saw that one class appear on [the degree audit system], I went to the chairperson and asked him – this was in the summertime – I said to him, "You know, this class just popped out of nowhere. I feel I shouldn't have to take it." So he said, "Well, it's required for [study college] students." I was like, "Okay, but you just added this on, so I figure it's supposed to be for students who are new to the school." He said, "Yea,

you're right. Let me talk to someone," and he did. He said that, "Okay, you wouldn't have to take the class." I was like, "Are you sure now?" he's like, "Yes, don't worry about it, it's gonna be removed from [the system]." I said, "Okay."

So when he said that, it still stayed in the back of my mind, like I have to still be on top of this. And when the summer session finished, I went back to him – let's say in August. Yea, definitely August, before this semester started. So I knew he didn't remember me, but I told him my name, I told him I was here before, and I said, "Is it still on that I don't have to take this particular course?" He said, "Well, now you have to take this course." I said, "But you told me I didn't have to." He said, "Well, now you have to." I was like, "You know? I should've gotten a written statement for you to sign." So now I have to stay back just to finish this one course. That's why I'm doing part-time, because of this one class.

As a result of the confusion, she stays in the local area for the first quarter of fall 2008 to take and pass this new course added to the liberal arts major.

As a result of her frustration, we see Shannon intensifying her information gathering from members of the college administration. She also finally sees a counselor who tells her --after reviewing her transcript-- that she did not actually need to take the two new courses because she already had enough liberal arts credits and her catalogue year should have been set to 2006, not 2007, respectively. Upon hearing the news, she was "shocked" and "pretty upset about it, pretty upset." As she opines in the following exchange, Shannon put a blind faith into how the online degree audit system worked, and did not understand that counselors were the ultimate gatekeepers towards her degree:

Shannon
They say some students don't even follow [the degree audit system], some say they don't follow [it] because [it] is always wrong. So it's like half and half, like which one do you believe? So I feel like maybe a counselor should contact students who are on their way to graduating, at least let them know, "Okay, you're graduating. You might need such-and-such class." Like, "Thank you for informing me." I think that would be a great help.
Interviewer
Certainly in your case, if they just gave you one answer, then you could've wrapped this up a little earlier.
Shannon
Oh, yea.

This late understanding of the relationship between the online degree audit system and counseling comes at a cost for Shannon. She leaves NECC and the local area, ostensibly for good, after fall 2008 without her AA degree having earned 75 credits. Lessons are to be learned from Shannon's experience on both sides of the equation. On the institutional side, this demonstrates that counseling is crucially necessary for transfer students who usually avoid taking the freshman seminar. Had she been required --at a minimum-- to go to counseling before being able to apply for graduation, she would have found out that she needed to change her major code and that she had actually satisfied all of the course requirements by spring of 2007 save for passing the required biology lab elective. She still would have had to take and pass the rising

junior exam and bring her GPA up to 2.0, the latter which she might have done easily by retaking at least two courses in which she received D's, all of which could have theoretically been accomplished in fall 2008.

Shannon's personal role in failing to reach her degree goal can be traced to, on the one hand, not learning from her lesson about working full-time while going to college. While we don't know the particular conditions around her parents' willingness or ability to help her financially, working full-time and going to school full-time came at the cost of her degree. She clearly values "getting the money" and paying her own bills. But, that she continues to work full-time after transferring to NECC--in light of pretty strong evidence that it's detrimental to her progress—suggests some serious inflexibility on her part. She is unable to replace the long term payoff of a college degree with the short term gain of a low level white collar job.

On the other hand, Shannon also does not seek information from individuals at the college; instead she trusts the degree audit system and only seeking advisement when her ability to graduate seemed in jeopardy. This technical issue regarding her major code certainly plays a significant role in this less than successful outcome for Shannon. The college would do well to identify those students who are at risk of automatically having their catalogue years reset when they apply for graduation. Some students, like Shannon, will only rely on the audit system to inform them that there is a problem.[23]

Jimena

Jimena's experience was almost identical to Shannon's. First, her earning and spending habits were established before she came to college. In the semester she took off between graduating high school and enrolling in her first college, another local community college, Jimena began to work full-time off the books at three different jobs. "I worked all day and I would make a lot of money and I would just go out. It wasn't necessary. It was a luxury for me to have that much money. An 18-year-old girl shouldn't walk around with $800.00 in her wallet." Second, she did not relinquish her immediate money making opportunities to have more time for school. Third, as a result of her prioritization, she failed out of her first college and after transferring to NECC failed out again. As we see in the following exchange, she again had difficulty making her evening classes, because her boss reneged on an offer to support her schedule and her studying at work:

> *Jimena*
> I was working the three jobs, I would be there from 8:00 in the morning till about 6:00 in the afternoon which was bad, but the thing is I started my classes at 5:30 and I was taking the night classes till about 10:00ish. But my boss would never let me go on time. He would always have me waiting for him because I couldn't leave till he got there. I was doing coat check. So he would never come – he was always there at like 7:00. I failed. I had to withdraw some classes.
> *Interviewer*

---

[23] As a result of this finding, the counseling and advisement center along with the registrar's office at NECC developed a comprehensive outreach effort to students who were at risk of having their catalogue years reset upon application for graduation.

Did you tell your boss, at least the boss for the job that mattered for you to get to class, the last job in the day, did you tell your boss I need some flexibility with my schedule because I'm going to school?

Jimena

I told him. I gave him a copy of my schedule and everything. Explained to him but he was just very – sometimes he had people who were supposed to come in after they went to school they were supposed to come in and cover for me at 5:00 but they wouldn't show up. It was just a big mess and I wasn't able to leave. One time I left and I almost got fired.

Interviewer

What point of the semester did it sort of occur to you that this is not gonna work? That you were not – things weren't working out?

Jimena

It was about maybe towards the middle of the semester because I tried and tried and tried and it was too much. Not only that – my boss told me you can study here, you could study at work since I was doing coat check. But then we had gotten complaints that all the students that worked there were doing their homework and studying while they were working

In addition to placing a higher priority on making money than the long-term, yet unknown, benefits of getting a college degree, Jimena's case shares several traits in common Jasmine. First, she shows planfulness and taking a College Now course at her high school, then by passing her skills tests easily and then by being committed to finding time to study. Second, and less fortunately, she was working "off the books" which gave her boss more leverage to be inflexible. In addition to her Achilles heel of working to satisfy her spending habits, another feature of Jimena's personality which may have hindered her ability to make adequate progress on her degree was a sense of perfectionism. Jimena's is just one of several instances where interviewees' bring to bear a self-concept forged by events and experience external to the college which is less than productive for their academic progress.

Genevieve

Like Jimena, Genevieve graduated high school one semester early and began working full time at a customer service job to pay for her cell phone, monthly metro cards and clothes. She was accepted into a four year college, but could not attend the summer skills program required to satisfy her reading skills requirement because of her job schedule. Enrolling in NECC as a Nursing major, she finds that she looked forward to class and asked a lot of questions. Although she received full financial aid, she continued to work and described her schedule during her first and only semester like this:

At the time I was working a morning shift, had to wake up at 6 am to be at work by 8 am, get out at 5, get to school for classes by 5:45, get out by 10, stay up to 2 am doing school work, get up again for the next day. On Mondays and Wednesdays, I would leave work from 1 to 3 and come back to work to finish up the [work] day then go back to [NECC] for my evening classes. Everything became more stressful and harder.

Because she was a valuable employee capable of a lot of responsibility—a source of immediate personal pride—she was able to make this arrangement with her boss. But she reported that her boss would still get mad when she took the time off to go to class (ex. *sabotage by boss*). Although the work load was nearly unbearable, she could not enroll part-time because she would not have qualified for enough aid to continue. Like Edward, her freshman seminar class was moved and because her work day was so cluttered, she could not find time to call the school to find out where the class was meeting. Her company then had "financial issues" and she was let go during the latter half of the semester. "And then I didn't have money for transportation for school. I was missing days, getting behind." As a result of getting behind, Genevieve stopped attending classes around mid-November and did not withdraw from her fall second quarter course resulting in a WU. She described an interest in returning, but like Tanisha she could not immediately afford to pay off the $400 emergency loan for books she had received at the beginning of the fall. She even researched local proprietary colleges to continue her education, but they insisted that she would have to pay off what she owed NECC before enrolling and qualifying for financial aid.

Fortunately, Genevieve was able to return to NECC as of the fall 2009 semester as a *Mathematics* major after stopping out for three semesters. She earned a 2.4 GPA in her first year back.

Carlos

Carlos is one of the few who grasped quickly how much working full-time hindered his ability to make adequate academic progress. Carlos left high school in order to get away from "the bad sort of people that got [him] into going to parties every day, cutting high school, stuff like that." Unlike most other high school leavers, Carlos remained at home with his parents and two brothers. After a few years working, "getting money" and taking it easy, his parents encouraged him to get his GED. Like Sandy, he eventually earned his GED through NECC's adult and continuing education program and enrolled in the Vet Tech program. He benefited from the fact that NECC was close to where he lived. He described himself as the "black sheep" in the family in terms of education. His younger brother currently attends a local private university and his older brother graduated from another local private college. Both his parents graduated from college in Peru, emigrating when Carlos was in middle school to give their children a "better life."

Despite passing all of the skill tests, Carlos essentially failed out of NECC in his first semester including two key courses for his major. He resisted dropping the most difficult of these because he figured he "could at least get a C on it and then …take it again and get a better grade." He attributed his poor showing to continuing to work full-time even though he qualified for nearly full financial aid. Carlos concisely explained his motivation for placing making money above going to college: "Yeah, when you're young, if you get money, you want [it] to stay like that."

In his first attempt to manage the rigors of school and working, Carlos dropped down to a part-time work and school load in his second semester (spring 2007) which allowed him to attend class more consistently. He passed a social science course with a C+ and *Statistics* with a D. He liked the social science course and claimed he should have done better except that he did not do well on the tests. As for the statistics course, he believed that "'cause I took so much time off that I kind of lost – I kind of don't remember how it went, how these problems are solved."

Despite this modest turnaround, Carlos leaves the study college for the entire 2007-08 academic year because of his disillusionment with the difficulty of the coursework and the competitiveness of the veterinary technology program.

After a year of soul-searching, Carlos returned to NECC on a new tack. He changed his major to Liberal Arts, developed a passion for painting and stopped working altogether, partially because he qualified for full financial aid:

> So that's a good thing. Now I'm trying to get my GPA up so they can keep giving me financial aid, so I'm gonna keep studying. I'm not working so that's kind of a thing. It's kind of a thing getting used to not getting money but I'm gonna have to get used to it if I want to do something else with my life.

As a result of learning from his mistakes, adapting his goals to better match what he believed were his capabilities and with the support and encouragement of his family, Carlos returned to college and in his first semester back earned all A's. While not all community college students are allowed second (and even third and fourth) chances from their family like Carlos, his experience sheds light on why students stop out for a year or more and return successfully. Prioritizing his degree over the immediate gratification of making money allows him to turn his progress around at least for the interim. Unfortunately, Jimena, Genevieve and Shannon did not learn the same lesson.

Case Group #4: Part-timers: Balancing school and work

Ten of the 11 interviewees who worked part-time for reasons other than economic necessity were still living at home as of our interview. And, of these eight were traditional college-aged at the time of the interview (only Arnold and Arif were older). Part-time work directly limited the ability to make adequate progress toward a degree in only two cases (Carlos as described above after the target semester and Daphne below). Most held hourly low-skilled jobs in customer service or light industrial fields, although there were professional benefits to some of these jobs.

While all started their jobs before coming to college, their work experiences differed in several ways from that of their counterparts who worked out of economic necessity. Their bosses were usually supportive of their education. This occurred both because they had established a history with their employer and because their bosses wanted them to be successful in college. They could count on adjusting their work schedules to accommodate their class schedules. This flexibility was available to them both in terms of during the week as well as across semesters. While these jobs were important to them for various reasons, they also understood that these jobs were temporary and subordinate to their goals of getting a college degree and going into professional careers. That is they described sensitivity to delaying their material gratification as well as faith that postsecondary education would provide them tastier fruit once they finished.

A number of the interviewees in this subgroup held jobs which gave them semi-professional experience working with the public, experience which they might capitalize on in their future careers. Jose worked in event planning in a children's museum; Kathy was a lab assistant at the college; Lydia worked in a library gift shop; Farouk was recently promoted to a

shift supervisor at a fast food restaurant; and Arif worked as a real estate agent for a company (but was eventually let go as the real estate market collapsed in late 2007). Finally, losing their part-time jobs did not cause any turmoil in terms of attending school. This is a hallmark of this group: working is not necessary for attending college.

Daphne

Daphne was the only individual in this group for whom part-time work in conjunction with her mother's medical crisis posed any serious risk to her academic progress. Daphne did well enough in high school to earn a small scholarship and conditional acceptance to a baccalaureate college contingent upon passing her math skills test. Her math test results, however, were not adequate, and she then enrolled in NECC. Shortly before classes started, her mother was hospitalized unexpectedly. This required a great deal of Daphne's time and energy, making it difficult for her to attend class. She was also continuing to work a retail job with a variable schedule which she had landed two weeks before school started. Because she did think initially that she would be enrolling in college until the spring semester, she had been open to receiving whatever shifts were available. Unfortunately, her manager was either unable or unwilling to generate a more stable schedule for Daphne.

Because she could not afford to pay back her scholarship, Daphne did not withdraw from her classes despite knowing she would probably fail her classes. She did not understand, however, that not withdrawing results in WU's which still would require her to pay back this scholarship. This assumption on her part caused her to earn a 0 GPA in her first semester. She only managed to pass the non-credit freshman seminar, the only course she continued to attend. Daphne reported that her mother's health stabilized over the fall semester and she attempted to reenroll in the spring for a full-time course load. Because her boss still was not able to provide her with a predictable work schedule, she was only able to take *English 101* that semester in which she earned an 'B.' After all that she did to compromise her academic progress to accommodate her job, she was fired during the spring semester after a disagreement with her boss.

In fall 2008, Daphne enrolled part-time in the first session, only finishing two courses with an F in each. She repeated this poor performance in the following semester, and reenrolled full-time for the spring 2010. Unfortunately, the circumstances related to her part-time job and her mother's health prevented her from living up to her potential on her first attempt at college. In her case, the combination of her dogged determination to hold on to her arguably optional job as well as her misinformation regarding policies on withdrawing from classes, taking a leave of absence and financial aid were academically disastrous for her.

Case Group #5: Unemployed or not working out of choice

Thirteen interviewees reported that they were not working at the most critical juncture(s) in their college going. That is, work did not play a role in how much progress they were making toward their degree. Nevertheless, they may have worked at some point in the past or during the time of our interview. Not surprisingly, nine of these thirteen lived at home and their college-going was supported by their family. Seven of those living at home received very little or no financial aid, suggesting that their parents' income was near or above the cutoff for financial aid.

Jane received three-quarters of a full financial aid award. Alicia, David, Inez, and Soo received full or close to full financial aid support, although for Soo this amount decreased to half and for David to nothing over time.

Discussion

Work clearly plays a huge role in many interviewees' ability to make progress toward their degrees at NECC. Table 6 presents the effects of interviewees' working on three "enrollment intensity" categories (with full-time being the unstated reference group) by their reason for working. Among the 39 students who worked at any point while at the study college within the timeframe of this study, working caused 11 part-time events, 4 stop-out events, and 9 leaving events. While going part-time and stopping-out were found to be adaptive strategies in managing the demands of work and school and, thus, allowed most to continue making adequate progress toward their degree, work and its relationship to financing their college was a central cause in the majority of cases where interviewees left the college.

Work involves and intersects many variables in students' lives beyond school, including family and dependent responsibilities, immigration experiences, and plans and goals for the future. Many students have already established a relationship to work, sometimes long before coming to college. Often these menial, dead-end jobs provide the motivation to earn a college degree in a search for a more meaningful and better paying career. Several interviewees even mentioned changing their career goals after enrolling in college in order to move away from fields based entirely on money (e.g., banking, accounting) to prepare themselves to work in health or criminal justice careers. Thus, college provided the motivation to seek out jobs in helping professions.

[Table 6 about here]

While work was a motivator for many interviewees, for some it also carried significant baggage, in terms of how much time they could attend class and study and the sacrifices they had to make for their education. For those who needed to work out of financial necessity, school had to be fit in and around their work schedules and, when present, family responsibilities. Some were able to manage this with careful planning, herculean persistence and personal scarifies. Others, particularly those who did not need to work out of financial necessity, became used to the immediate financial returns of their jobs. This inability to delay gratification came at the expense of time and energy for their studies. Immediate money-making ability trumped whatever career and income that they thought a college degree might offer them later. Not surprising, this was often accompanied by a lack of clear career paths or disillusionment or lack of focus in their studies and in some cases an adjustment in what they studied (i.e., Arnold, Carlos, Jimena, Juliana, Ormando and Tanisha).

Work greatly affected many interviewees' decisions about college attendance. Employers in contemporary service businesses stand to lose in the short and long terms if their employees go back to college. In the short term, they are asked to be flexible with schedules or to allow their employees to study on the job. This costs the employers in terms of extracting the greatest amount of work for the least amount of pay. This may explain why so many interviewees relayed episodes of their supervisor's reneging on their offer of flexibility or even worse

episodes of harassment. At first, they oblige but once they encounter the cost of this flexibility, they rescind the offer. In the long term, the employers risk losing what are or are becoming valuable employees if their employees finish their degrees and move on to better jobs or careers.

The exceptions to the difficult boss syndrome seemed only to occur when students and their employers began with the clear understanding that these are temporary, if mid-range, positions. In these instances the bosses mentored and encouraged interviewees, occasionally because they themselves were unable to attend or finish college. That is, they wanted the students to learn from their own mistakes. For the most part, these jobs seemed to be less dead-end "adult" careers. These were jobs where clearly the best employee would be a young, responsible and socially outgoing young person. A number of the jobs held by those in the older age categories required less cultural capital. In these instances, an interviewee's immigration status and length of time in the U.S. also played a role in what job they could get and what arrangement they could make with their employer in terms of having time to go to school.

Another feature of the undermining nature of working is that many interviewees accepted more work and greater pay when it became available almost out of principle. Some did so nearly without any regard to the effect this might have on their studies or even on other aspects of their life. This occurred almost exclusively with those who worked for reasons other than financial necessity.[24] In a sense, the concrete immediate gain of money was preferable to expressed yet distant goals of getting a college degree and entering a career. Future research might explore in more depth students' decision-making process regarding the value of immediate financial gain through working and the value they place on the more distant labor market rewards once they earn their degree. We would like to understand what influence college has on students' decision-making and prioritization regarding this issue.

While working had directly and indirectly affected students' ability to make progress toward their degrees, the English language work environment has an indirect effect on students' academic progress. A second indirect effect occurs when those English language learners who could only attend part-time or who needed to stop-out as a result of the job may not experience the academic intensity necessary to make more than incremental progress on the English skills. Some may need intensive periods of work on their English skills in order to make lasting improvements. Going part-time may not present enough exposure to English to make the gains needed to ultimately be successful, particularly for older English language learners. By extension, the lack of exposure to the academic intensity inherent in a full-time load may apply to the whole range of academic subjects and skills. For instance, several individuals complained that they had been out of school so long, that they had forgotten how to do math problems.

Despite the apparent drawbacks to working for many of our interviewees, there was ample evidence that working provided a sense of accomplishment and capacity and contributed to self-image and identity. In that so much of modern society is based on what one does and how much one makes, it is not surprising that so many features of self-assessment are based on one's working life. Unfortunately for many, an established relationship to work, sometimes long before enrolling in college, means that a competition of sorts arose between the immediate gains of work (both emotional and monetary) and the more distant and uncertain rewards available to them in the labor market once they finish their degrees. Some in the sample were able to see

---

[24] However, both Victoria and Lori may fall into this category. Lori took a raise but didn't understand the implications of it for her public assistance; Victoria moved out to California on the urging of her boss and tried to continue to go to college there, but it did not work out.

beyond the low hanging fruit of their immediate money-making opportunities, while others unfortunately did not.

Conclusion

The critical junctures model developed though this qualitative study provides valuable understanding of the process of community college student disengagement. Presented were the ways in which academic preparation, external constraints, administrative issues, academic challenges and working combine to create critical decision-points for students. The types of interpersonal skills and social resources that students brought to bear on these critical junctures shaped how effective their responses were for short and long-term outcomes. This study demonstrates that the relationship of students' backgrounds, encumbrances and abilities to their academic progress is not a deterministic process. How and why they attempted to resolve critical junctures mattered for their progress. Policy and intervention efforts to address the low outcomes of community college students should incorporate this understanding.

In terms of enrollment disruptions, this study suggests that students who downgrade from full-time to part-time status are more likely to succeed than those who stop-out. This occurs for two reasons. First, attending part-time allows for continued academic momentum in ways stopping-out does not. In many instances, dropping down to a part-time course load was a productive adaptive strategy such in those instances where interviewees were faced with a particularly difficult course (e.g., math). Second, the circumstances which preceded their decision to attend part-time appear qualitatively less acute than those that led to stopping-out. While some interviewees stopped out as a response to discrete and relatively benign administrative problems (Lydia) and personal issues like travel (Malika), the majority did so as a result of more acute college-related issues (Soo), life crises (Douglass, Victoria, Tensing) and personal health issues (Violet, Jose, John). It may not be surprising that many in the stop-out group wound up stopping out again during the time scope of the study. And, more of those who stopped-out left the college than their peers who only went part-time. In other words, the attendance profile for those who stopped-out tended to be more complicated and was associated with less positive long-term outcomes.[25]

Of those who left the college entirely during the time scope of the study, the critical junctures that they encountered were the most serious combining both academic and life issues. Although some attempted to rectify and manage these junctures by seeking help, their challenges were so demanding that they—and quite possibly anyone—would have difficultly crafting a productive response. For most of those who were in-transfers, the reasons for and the manner in which they left the college was identical in effect to their departure from their previous college (Shannon, Jimena, Tanisha).[26] In other cases, students learned from past experiences and altered their response thus avoiding departure. It is only hoped that in the act of leaving, leavers take appraisal of what led them to leave and readjust their approach if and hopefully when they return.

---

[25] A study conducted by the college using institutional data for the 2002 cohort of first-time freshmen confirmed that those who stopped out had a decreased likelihood of graduating in six years than those whose only enrollment disruption was going part-time.

[26] This also plays out going forward. Several interviewees have gone on to other community colleges after failing out of the college.

Students' life-task appraisal and self-concept discrepancy

Understanding students' decision-making processes when faced with critical junctures is a useful resource for policy and interventions. During these junctures, it is clear that students weigh solutions and options against their goals, commitments, resources and various costs of these solutions. Cantor et al.'s (1987) insights into the process of college students' strategy formation in academic and social life-tasks provide a useful way to frame this decision-making process. They find that when individuals are faced with difficult life-tasks, they develop different cognitive strategies to protect their self-esteem. Cognitive strategies are "coherent patterns of appraisal, planning, retrospection and effort that translate an individual's goals and beliefs about himself or herself into effective action" (1180). Cantor et al. hypothesize that these strategies are shaped by the discrepancy between their *actual* self-concept and *ideal* self-concept in the performance of these life-tasks. Actual self-concept concerns an individual's evaluation of his or her current performance on a life-task (e.g., I am not doing well in this math class). Ideal self-concept is how they think they should perform based on normative definitions and expectations (e.g., I should do well in this math class).

Cantor et al. (1987) examine this process among a sample of 4-year honors college students as they engage with two life-tasks: academic performance and a social event (i.e., a party). They find that the differing motivation to fulfill normative pressures associated with these two life-tasks depends upon whether or not the domain is comfortable (such as attending a party) or stressful (such as pertaining to academic work). Discrepancies between actual and ideal selves in the academic but not the social realm produced two different motivational strategies. Students with a larger discrepancy between their actual and ideal academic selves used a defensive-pessimistic strategy to defend their self-esteem. The anxiety produced in this discrepancy contributed to their pessimism about future performance on academic tasks which motivated them to work harder. Optimists, on the other hand, did not have a large discrepancy and they, therefore, believed that they would do well thereby protecting their self-esteem before, during and after the academic task. These two strategies emerged despite the nearly identical and successful academic performance of these two groups prior to and during the study. Thus, their findings do not pertain to how academic preparation or other factors influence outcomes, but rather the cognitive process through which students reach the same outcomes.

The current research highlights a third set of life tasks which can extend Cantor et al.'s (1987) work to non-traditional college students—whether at a community college or 4-year college. These are the life tasks which make college students "non-traditional," namely child rearing and other family responsibilities, full-time work, and immigration experiences (i.e., learning English, naturalization). As we have seen, success in most if not all of these life tasks is not only obdurate necessity for these students: they are also life-tasks in which they are actively engaged in appraisal, self-concept evaluation and motivational strategy creation. As the likely discrepancy between non-traditional college students' actual self-concept in life tasks with their actual—and much less ideal—performance in academic tasks becomes apparent, their attachment to their success in these life tasks may strengthen to protect their self-esteem and self-concept. Not only do life-tasks complicate in a practical sense the ability of non-traditional students to meet academic challenges, but ironically their success in these may actually increase the likelihood that they will adopt a pessimistic strategy for academic tasks. As a result of this pessimism, they might be quicker to rationalize giving up their educational goals when faced

with serious academic challenges. The threat to their self-esteem that likely academic failure portends, therefore, makes the self-concept and self-esteem garnered through success in life-tasks that much more valuable.

On the other hand, this study also points out that success in life tasks can also be a source of positive cognitive strategies for students' academic tasks. Here, students apply the strategies developed in their life-tasks such as perseverance, help-seeking and sacrifice-making to their academic tasks. Even in the face of repeated academic failure, they adopted an optimistic cognitive strategy to manage this threat to their self-esteem. That is, their life-task success was their primary source of self-esteem and self-concept which mitigated the damaging effects of academic difficulties. This was also observed from another angle. Those who were struggling to be successful in life-tasks (Jane, Arif) did not have resilient cognitive strategies to deal with both these and academic difficulties. They tended to "preserve their old strategies and routines in the face of shifts in the rules of the…game" (Cantor et al. 1987: 1190). In short, they chose to abandon their academic goals when faced with new academic challenges.

Policy recommendations

Based on this deeper understanding of community college students' decision-making processes and the role of interpersonal skills and socially-based resources, it is clear that much more attention needs to be paid to developing community college students' "soft" skills and capabilities. Excepting brief and intermittent advising sessions and a new student seminar, interviewees did not describe participating in any additional college-initiated development experiences. Their "non-traditional" college student lives clearly put on damper on the time and energy they could invest in the many student development experiences offered at the study college like clubs and academic success workshops. This is perhaps the sole reason why Tinto's (1975, 1987) theory about the importance of social integration in college gains finds little purchase when applied to community college students: they simply do not have time for the social aspects of attending college. However, this study indicates that the features which shape students' decision-making during critical times are powerful fulcrum points with which to improve the quality of their responses and ultimately their long-term educational outcomes. Policy and intervention efforts could incorporate the insights of the critical junctures framework in developing systematic, sustained and required student development experiences. Merging the insights of both the pathways and milestones literature and the critical junctures perspective, past students' performance could be used to develop likelihood scenarios regarding their performance at various points (i.e., end of semester). This information could be presented to students at various key points such as at the end of semester, during advising sessions or be made available to them on their student portal web page (if available).

Three additional policy and practice recommendations stem from the findings. The first emerge from insights regarding *slippage* in students' progress caused by preventable administrative problems. Systematic outreach to students vis-à-vis quick polls, surveys and other feedback mechanisms could be used to identify and address those administrative issues which are causing students to attend part-time or stop-out. By addressing and preventing these through policy, professional development, and cross-training (i.e., to prevent "runarounds"), significant improvement in aggregate student progress could be attained. Critical junctures lend themselves to identification vis-à-vis students' transcripts, early alert type interventions (e.g., based on attendance) and faculty and advisor contact with students. At these junctures, students could be

provided crisis-type assistance either to help them manage their crises (i.e., connecting students directly to child care resources) and remain enrolled or leave the college in more productive ways (i.e., canceling all of their classes and avoiding and unpaid balance). The identification, prevention or solution to critical junctures has the potential of improving aggregate student progress.

A second finding is that the most productive responses to critical junctures were observed with those individuals who had a strong commitment to their degree and career goals. Their goal-commitment enabled and encouraged them to marshal and sometimes develop interpersonal skills and socially based resources essential to manage these sometimes overwhelming circumstances. In many cases this entailed adjusting their original goals to fit their actual skills and capabilities. It follows then that a major source of critical junctures for leavers was the result of not adjusting degree and career ambitions to better match their skills. This occurred most often with those enrolled in one of the allied health fields. On the one hand, these individuals overestimated their academic capabilities in math and science courses. On the other, they underestimated the amount of commitment, time and effort that completing these degrees would entail. Some like Carolos corrected their degree aspirations as a result of course failure. Others like Janice and Alicia continued despite clear indications that they were not making adequate progress until they were put on academic suspension. And, a third group left the college after the first semester once they saw the gap. That is, instead of adjusting their goals, they abandoned them.

It follows that the college might work to better match students to majors more appropriate to their skill level. This might involve an evaluation and counseling before they choose a particular course of study and enroll in key courses. This might persuade students like Janice and Alicia to major in more realistically attainable fields earlier in their careers instead of being put on academic suspension. It may certainly go against the grain for the college to intrusively counsel *Veterinary Technology* aspirants, for instance, to choose other majors based on their skills and comfort level in math and science courses. It would, however, ultimately serve them and the college better with the additional benefit of reducing the loss of students' academic momentum associated with switching majors.

The third policy relevant finding revolves around the efficacy of the three age categories—traditional, near-traditional, and non-traditional—in understanding the types of critical junctures students face and how they can manage these. While younger students were exposed to less dramatic external factors, they were not as capable as older students at dealing with critical junctures when they occurred. Those in the middle age category were exposed to more complicated life situations such as early emancipation (Dian) and family crises (Victoria), but they also tended to have more family support and better developed coping and decision-making skills than their younger counterparts. Most in the older age category were most often saddled with the most trying life responsibilities, but as covered previously were the most developed in terms of persistence, commitment and decision-making—as well as cognitive strategies. These skills were ironically often developed through their life-experiences including immigrating to the U.S. (Francios, Diego) and supporting their family (Celeste) which provided them the faith that they could succeed and made them more open-minded in devising solutions to critical junctures.

Community colleges ---as all colleges who enroll non-traditional aged students-- should consider more carefully students age specific needs and strengths. One approach would be to age-grade freshmen or student development seminars so that instructors could better tailor that

experience according to students' ages. Same-age students may feel more open to sharing and learning from their peers than in mixed settings.

Directions for future research

One goal of this study was to invigorate quantitative models of community college student progress through foundational qualitative work. These in turn may provide the actionable suggestions needed for policy and interventions aimed at improving the academic outcomes of community college students. Many, but certainly not all, risk and preventative factors associated with critical junctures were presented. While it is beyond the practical capacity of most institutional research offices to collect additional data on these factors, existing administrative data can be repurposed to this end.

Tables 7 and 8 present an inventory of data elements collected by the study college which could be explored as indirect or proxy measures of some of the interpersonal resources outlined in this study. Whether or not a data element is a direct or indirect measure is also indicated. The plus (+) or minus (-) sign of the data element indicates the direction of association that it is believed to have independent of the value (i.e., positive or negative) that resource is assumed to have to students' academic progress. In some instances there are perhaps no better direct measures for the item than the indirect measure presented short of a comprehensive psychological assessment. These instances are indicated by a "←".

Identifying critical junctures for the sake of predicting responses and outcomes would be a less certain process. There is no way to access all individual students' experiences internal and external to their college-going which create these events. There are, however, a few potential signals such as going part-time and stopping-out as well as incidences where students fail or withdraw from courses or earn non-passing grades which may indicate a critical juncture is at hand. These data points are currently used in early warning systems. The goal of a predictive model would then be to identify critical junctures through these transcript and administrative events, ascertain students' possible responses to these events (e.g., dropping-out, going part-time) based on whatever interpersonal traits and personal resources or constraints are identified though repurposed data and suggest the possible outcome(s) of these responses.

Table 9 presents an example of this sort of meta-transcript analysis using both the insights of this qualitative study and the additional data points available through repurposed administrative data including the following features or steps:

- interpersonal skills
- personal resources and responsibilities
- critical junctures
- predicted outcome
- actual outcome
- suggested intervention to prevent the predicted outcome
- the potential return on that intervention.

Once a catalogue is created of such predicted critical junctures, the potential outcomes and best possible interventions and return on interventions, larger scale testing of the prediction of critical junctures and their outcomes as well as interventions to changes these outcomes can take place.

[Insert Tables 7, 8 and 9 about here]

Many cross-case themes or factors both influencing interviewees' academic *and* life progress were explicitly developed in the qualitative analysis. The following themes or factors were also encountered or implied in the analysis which may deserve follow-up in future research. These are:

- Avoidance of student loans
- Difficulties and challenges of undocumented students
- Opportunism and "unofficial" workarounds
- Withdrawal of support or sabotage of students' college-going by parents/guardians, family members and bosses
- Aspirational vs. pragmatic education and career goals
- Cultural conflict between students and instructors
- Female students' greater exposure to severe personal crises
- Difference in academic preparation of native vs. immigrated students
- Physical proximity to college
- The effect that transferring has on academic momentum
- The pull of proprietary educational institutions.

List of Works Cited

Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns, and bachelor's degree attainment.* Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college.* Washington, D.C.: U.S. Department of Education.

Astin, A.W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, *25*, 297-308.

Attewell, P., Lavin, D., Domina, & Levey, T. (2006). New evidence on college remediation. *The Journal of Higher Education*, *77*(5), 886-924.

Attinasi Jr., L.C. (1989). Getting In: Mexican Americans' Perceptions of University Attendance and the Implications for Freshman Year Persistence. *The Journal of Higher Education 60*(3), 247-277.

Attinasi Jr., L.C. (1990). Phenomenological Interviewing in the conduct of Institutional Research: An Argument and an Illustration. *AIR Professional File 38*. Tallahassee, FL: The Association for Institutional Research.

Bailey, T., Calcagno, J., Jenkins, D., Leinbach, D., & Kienzl G. (2006). Is student-right-to-know all you should know? An analysis of community college graduation rates. *Research in Higher Education, 47*(5), 491-519.

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

Bers, T. H., & Smith, K. E. (1991). Persistence of community college students: The influence of student intent and academic and social integration. *Research in Higher Education, 32*(5), 539-556.

Behr, P. R. (2008). Does mathematics remediation work?: A comparative analysis of academic attainment among community college students. *Research in Higher Education, 49*(5), 420-450.

Bettinger, E. P., Long, B. T., Oreopoulos, P., & Sanbonmatsu, L. (2009). The role of simplification and information in college decisions: Results from the H&R Block FAFSA experiment. National Bureau of Economic Research Working Paper No. 15361. Retrieved from http://www.nber.org/papers/w15361.

Braxton, J., Milem, J., Sullivan, A. (2000). The influence of active learning on the college student departure process: Toward a revision of Tinto's theory. *The Journal of Higher Education 71*(5), 569-590.

Brower, A. M. (1992). The "second half" of student integration: The effects of life task predominance on student persistence. *Journal of Higher Education*, *63*, 443-462.

Calcagno, J., Crosta, P., Bailey, T., and Jenkins, D. (2006). Stepping Stones to a Degree: The Impact of Enrollment Pathways and Milestones on Community College Student Outcomes. New York: Community College Research Center, Teachers College, Columbia University.

Cantor, N., Norem, J. K., & Brower, A. M. (1987). Life tasks, self-concept ideals, and cognitive strategies in life transition. *Journal of Personality and Social Psychology 53*(6), 1178-1191.

Chamaz, Kathy (2006). Constructing grounded theory: A practical guide through qualitative Analysis. Thousand Oaks, CA: Sage Publications.

Community College Study of Student Engagement. (2008). [Data file]. Retrieved from http://www.ccsse.org/survey/search1.cfm.

Conley, D.T. (2005). *College knowledge: What it really takes for students to succeed and what we can do to get them ready.* San Francisco: Jossey-Bass.

Cox, Rebecca D. (2009a). 'I would have rather paid for a course I wanted to take': Students' utilitarian approaches at a community college. *The Review of Higher Education, 32*(3), 353-382.

Cox, Rebecca D. (2009b). *The college fear factor: How students and professors misunderstand one another.* Boston, MA: Harvard University Press.

Desrochers, Donna M., Lenihan, Colleen M., and Wellman, Jane V. (2010). Trends in College Spending. Washington D.C.: Delta Cost Project. Retrieved from http://www.deltacostproject.org/resources/pdf/Trends-in-College-Spending-98-08.pdf.

Di Tommasso, K. (2004). *Adjusting to College: The Non-cognitive experiences of developmental writing students.* Unpublished doctoral dissertation. Harvard University.

Fox 1986 Application of a Conceptual Model of College Withdrawal to Disadvantaged Students

Gardenhire-Crooks, A., Collado, H., Martin, K., & Castro, A. (2010). Terms of engagement: Men of color discuss their experiences in community college. Retrieved from http://www.mdrc.org/publications/547/full.pdf

Gates, A., & Creamer, D. (1984). Two-year college attrition: Do students or institutional characteristics contribute most? *Community/Junior College Quarterly of Research and Practice*, *8*, 39-57.

Glaser, B. G. & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Chicago, Aldine Publishing Company.

Gohn, L., Swartz, J., & Donnelly S. (2001). A case study of second year student persistence. *Journal of College Student Retention: Research, Theory and Practice, 2*(4), 271-294.

Goldrick-Rab, Sara. (2010). Challenges and Opportunities for Improving Community College Student Success. *Review of Educational Research, 80*(3), 437–469.

Hagedorn, L. S. & Kress, A. M. (2008). Using transcript in analyses: Directions and opportunities. *New Directions for Community Colleges*, *143*, 7-17.

Horn, L., & Nevill, S. (2006). *Profile of Undergraduates in U.S. postsecondary Education Institutions: 2003-04: With a special analysis of community college students (NCES 2006-184).* U.S. Department of Education. Washington, DC: National Center for Education Statistics.

Horn L, Wecko T (2009) *On Track to Complete? A Taxonomy of Beginning Community College Students and Their Outcomes 3 Years After Enrolling: 2003–04 Through 2006* National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, D.C.

Ishitani, T. T. (2006). Studying attrition and degree completion behavior among first-generation college students in the United States. *Journal of Higher Education, 77*(5), 861-885.

Jeffreys, M. R. (1998). Predicting nontraditional student retention and academic achievement. *Nurse Educator, 23*(1): 42-48.

Karabenick, S. A. (2004). Perceived achievement goal structure and college student help seeking. *Journal of Educational Psychology, 96*, 569-581.

Kuh, G., Cruce, T., Shoup, R., Kinzie, J., Gonyea, R. (2008). Unmasking the effects of student engagement on first-year college grades and persistence. *The Journal of Higher Education, 79*(5), 540-563.

Metzner, B. S., & Bean, J. P. (1987). A conceptual model of nontraditional undergraduate student attrition. *Review of Educational Research, 55*(4), 485-540.

Nora, A., Cabrera, A. F., Hagedon, L. S., & Pascarella, E. T. (1996). Differential impacts of academic and social experiences on college-related behavioral outcomes across different ethnic and gender groups at four-year institutions. *Research in Higher Education, 37*, 427–451.

O'Gara, L., Mechur-Karp, M., & Hughes, K. L. (2009). Student success courses in the community college: An exploratory study of student perspectives. *Community College Review, 36*(3), 195-218.

Olivas, M. A. (2009). Undocumented College Students, Taxation, and Financial Aid: A Technical Note. *The Review of Higher Education, 32*(3), 407-416.

Pascarella, E., Pierson, C., Wolniak, G., and Terenzini, P. (1998). First Generation College-Students: Additional Evidence on College Experiences and Outcomes. *The Journal of Higher Education, 75*(3), 249-284.

Radford, A.W., Berkner, L., Wheeless, S.C., and Shepherd, B. (2010). *Persistence and Attainment of 2003–04 Beginning Postsecondary Students: After 6 Years* (NCES 2011-151). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved 6/12/10 from http://nces.ed.gov/pubsearch

Rendon, L. I., Jalomo, R. E., & Nora, A. (2000). Theoretical consideration in the study of minority student retention in higher education. In J. M. Braxton (Ed.), *Reworking the Student Departure Puzzle* (pp. 127-156). Nashville, TN: Vanderbilt University Press.

Roderick, M., Nagaoka, J. Coca, V. & Moeller, E. (2008). From high school to the future: Potholes on the road to college. *Consortium on Chicago School Research*. Retrieved from http://ccsr.uchicago.edu/publications/CCSR_Potholes_Report.pdf.

Roueche, J.E. & Roueche, S. (1993) *Between a Rock and a Hard Place: The at-risk student in the open-door college.* Washington, D.C.: The Community College Press.

Pascarella, E.T. & Chapman, D. W. (1983) A Multiinstitutional, path analytic validation of Tinto's model of college withdrawal. *American Educational Research Journal, 20*, 87-102.

Phillippe and Sullivan. (2005). *National Profile of Community Colleges: Trends and Statistics. 4th edition.* Washington, DC: American Association of Community Colleges.

Rutschow, E. Z., Richburg-Hayes, L., Brock, T., Orr, G., Cerna, O., Cullinan, D., Kerrigan, M.R., Jenkins, D., Gooden S., & Martin, K. (2011). Turning the Tide: Five Years of Achieving the Dream in Community Colleges. New York: MDRC. Retrieved from http://www.achievingthedream.org/Portal/Modules/133a5359-8084-4c0e-af92-f01d5662f044.asset?

Saunders, M & Serna, I. (2004). Making college happen: The college experiences of first-generation Latino students. *Journal of Hispanic Higher Education, 3*, 146-163.

Scrivener, S., Weiss, M.J., & Teres, J.J. (2009) More Guidance, Better Results? Three-Year Effects of an Enhanced Student Services Program at Two Community Colleges. New York: MDRC. Retrieved from http://www.mdrc.org/publications/524/full.pdf.

Scrivener, S. & Coghlan, E. (2010). Opening Doors to Student Success: A Synthesis of Findings from an Evaluation at Six Community Colleges. New York: MDRC. Retrieved from http://www.mdrc.org/publications/585/policybrief.pdf.

Stahl, V. V., & Pavel, M. D. (1992, April 20-24). *Assessing the Bean and Metzner model with community college student data.* Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.

Tannock, S., Flocks, S. (2003). "I know what it's like to struggle": The working lives of young students in an urban community college. *Labor Studies Journal, 28*(1), 1-30.

Terenzini, P., Springer, L., Yaeger, P., Pascarella, E., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education*, *37,* 1-22.

The College Board. (2008). Fulfilling the commitment: Recommendations for reforming Federal student aid. Retrieved from http://professionals.collegeboard.com/profdownload/rethinking-stu-aid-fulfilling-commitment-recommendations.pdf.

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

Tinto, V. (1986). Theories of student departure revisited. In J. C. Smart (Ed.), *Higher Education: A Handbook of Theory and Research* Vol. 12, 107-164. New York: Agathon Press.

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

Tinto, V. (1998). Colleges as communities: Taking research on student persistence seriously. *The Review of Higher Education, 21*(2), 167-177.

U.S. Department of Education, National Center for Education Statistics. (2003). Work First, Study Second: Adult Undergraduates Who Combine Employment and Postsecondary Enrollment, NCES 2003–167, by Ali Berker and Laura Horn. Project Officer: C. Dennis Carroll. Washington, DC.

Voorhees, R. A. (1987). Toward building models of community college persistence: A logit analysis. *Research in Higher Education, 26*(2), 115-129.

Zimmerman, B., Bandura, A., Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal, 29*(3), 663-676.

Appendix A
Tables and Diagrams

Table 1
**Comparison of Interview Sample with Study College Degree
Student Population**

	Interview Sample		Study College
	N	%	%
Total	55	100.0	100.0
Gender			
Female	30	54.5	64.0
Male	25	45.5	36.0
Nativity			
U.S. Born	19	34.5	41.0
First Generation			na
Foreign Born	36	65.5	59.0
1.5 Generation			na
Race			
Asian	10	18.2	18.0
Black	13	23.6	18.0
Hispanic	18	32.7	34.0
White	4	7.3	14.0
Other	1	1.8	6.0
Unknown	9	16.4	10.0
Age			
17 to 22	26	47.3	48.0
23 to 29	15	27.3	26.0
30+	14	25.5	21.0
Representation by Region			
Africa	1	1.8	3.0
Europe	1	1.8	7.0
Far East & Oceania	11	20.0	20.0
Latin America & the Caribbean	19	34.5	29.0
Near & Middle East	1	1.8	
United States & Canada	22	40.0	41.0
High School Degree			
High School Diploma	23	42.0	51.0
GED	17	31.0	16.0
Foreign	14	25.0	13.0
Missing	1	2.0	21.0
Developmental Needs			
ESL	10	18.2	23.0
Math	28	50.9	54.0
Reading	14	25.5	34.0
Writing	34	61.8	36.0

Table 2
Resources Brought to Bear on Critical Junctures

Interpersonal Skills	Socially Based Resources
Learning from mistakes	Personal contact at the college
Pro-active, strategizing, time management	Kinship/homeland peer networks
Adaptability	Role models
Career and educational planfulness	Supportive family member(s)
Educational and career goals and commitment	Supportive boss
Delayed gratification, sacrifice-making	Internships
Prioritization	Religious faith
Perseverance	Cultural expectations
Decision-making	
Problem solving	
Academic self-concept/college-going identity	
Help-seeking	
Internal locus of control	

Table 3
Primary Source of Disruption to Full-time Enrollment by
Degree of Disruption: Spring 2008

Primary Source	Degree of Enrollment Disruption			
	Potential Leaver	Part-time	Stop-out	Total
Administrative Issue	0	6	3	9
Critical Juncture	17	13	11	41
Personal Choice	1	3	1	5
Total	18*	22	15	55

*Five converted to 1-year or longer stop-outs within the scope of the study.

Table 4
Interviewees' Responses to Science Courses Difficulties and Eventual Outcomes

Interviewee	Major	Course	Grade	Reason	Response/Outcome
Alicia	Diet Tech	Human Biology I (SCB203)	F (x3); W (x1); D (x1)	Material too difficult; issues with terminologies and test-taking; depression	Persisted to complete these two courses, but GPA is under 2.0 as a result of D grades.
		Human Biology II (SCB204)	W(x1); D (x1)		
Carlos	Vet Tech	Biological Chemistry (SCC140)	F	Material too difficult; working full-time	Stopped out and changed degree to Social Sciences
Cynthia	RN	Human Biology I (SCB203)	B+	(Not provided)	Didn't not make RN candidacy; went part-time to make better grades; switched to PN
		Human Biology II (SCB204)	C		
Indira	RN	Medical Surgical Nursing (SCR210)	F (x2)	Personal emotional and health issues due to working full-time and family troubles	Although near the end of her program, student left the college
Julia	Mortuary Science	Biological Chemistry (SCC140)	W	Registered late; book not available in the book store	Stopped out; retook course and earned an 'A'
Kathy	RN	Human Biology I (SCB203)	B	(Not provided)	Didn't not make RN candidacy; taking non-relevant courses to bring her GPA up
Farrah	Liberal Arts (RN aspirant)	Chemistry I (SCC210)	C-	Material too difficult	Continued as a Liberal Arts major; will not attempt RN candidacy
Paul	EMT/ Paramedic	Human Biology I (SCB203)	F (x1); C (x1)	Working and commuting left little time/energy to study	Retook class; went part-time in school
Shannon	Social Sciences	SCB201	F(x1); D(x1)	Material too difficult; working full-time left little time/energy to study	Retook class; GPA took low to graduate; left college
Violet	RN	Human Biology II (SCB204)	B-	Instructor locked her out of an exam for showing up late due to illness	Stopped out; returned as a PN major

Table 5
Primary Work Status Prior to Interview by Reason for Working, Work Intensity and Nativity

Work Intensity	Work out of Financial Necessity			
	Traditional College-Aged (17 to 22)	Near Traditional College-aged (23 to 29)	Non-Traditional College-aged (30 and older)	N
Full-time	Murat[§], Tanisha[*]	Dian[‡], Hasan[§], Indira[¶], Julianna[†], Paul[‡] Sandy[*], Victoria[‡], (Lori[*])	Edward[§], Francine[§], Francios[§], Jasmine[§], Lyndell[§], Maria[§], Nicolas[§], Ormando[‡], Nina[§], Tora[¶]	19
Part-time	Tensing[¶]	Lori[*], (Victoria[‡])	Celeste[§]	3
Subtotal	3	8	11	22
	Work Out of Habit for own Private Income, "to help out" the family, to Pay for College or for work experience			
Full-time	Genevieve[†], Jimena[‡], (Carlos[‡])	Shannon[†]		4
Part-time	(Carlos[‡]), Cindy[‡], Daphne, Diego[§], Farouk[‡], Farrah[¶], Janice, Jose[†], Kathy[§], Lydia[*], Robert[†], Santosh[§],	Arnold[†], Arif[†]		12
Subtotal	14	3	0	17
	Did not Work			
	(Carlos[‡]), Cynthia[‡], David[*], Dilip[‡], Douglass[*], Jane[‡], John[*], Nathifa[‡],Tricia[‡]	Violet[‡], Alicia[*], (Lori)	Inez[§], Julia[§], Soo[§]	
	8	2	3	13
Total	25	13	14	52

*Native Born
[†]Native Born/1st Generation American
[‡]1.5 Generation
[§] Later-immigrating (i.e., graduated high school in homeland and possibly college; also work experience in homeland)
[¶] International Student
Note: Names in parentheses indicate individuals whose work status changed between the time they started at the study college and the time of the interview. Counts are unduplicated.

Table 6
**Effects of Working on Interviewees' Selected Enrollment Intensity
Statuses by Reason for Working**

Work out of Financial Necessity		
Part-time	Stop-out	Leaver
Dian, Indira, Paul, (Victoria), Francine, Francios, Lyndell, Maria, Nicolas, Celeste	Murat, Victoria, Tensing	Tanisha, Hasan, (Indira), Juliana, Sandy, Lori, Edward, Jasmine, Ormando
8 (11)*	2 (4)	8 (9)
Work for other reasons other than Financial Necessity		
(Carlos), David, Farouk, Jimena, Shannon	Carlos	(Shannon), Jimena, Genevieve, Arnold, Arif
(1)	1	2 (1)

* Those names and counts without parentheses indicate enrollment disruptions during the target semester (Spring 2008) related to work while those in parentheses indicate any change in enrollment status of these individuals during the interview semester (Fall 2008).

Table 7
Examples of Potential Repurposing of Existing Data Elements as Measures of Students'
Interpersonal Resources

Interpersonal resources	Direct Measure	Indirect Measure
Problem solving		GED recipient if foreign (+)
		GED recipient if native-born (-)
		Transferring from another college after failing out (-)
Pro-active, strategizing, meets deadlines	Date at which student registers for classes/submits paper work relative to the start date/dead line	Taking coursework for a higher major (+); undocumented resident
		Going part-time while taking upper-level courses (+)
		Late applicant (-)
		Applying for financial aid in first semester
Adaptability		Changing major after inadequate performance in key course (+) (←)
Decision-making	Enrolling in [the study college] shortly after earning a GED (+)	Changing major immediately after inadequate performance in key course (+)(←)
Perseverance/goal commitment		Retaking failed courses immediately (+)(←)
		Returning full-time after stopping-out for a semester (+)(←)
Stubbornness*		Remaining in a major though GPA in key courses are too low (+)(←)
		Persisting to end of course of study though GPA is too low to graduate (+)(←)
Time management		Patterns in course selection (e.g. little spacing between courses; only day or evening) (+)(←)
Help-seeking/follow through	Clearing Bursar and advising stops in a timely fashion (+)	Gaining permission to take incompletes and not finishing them (-)
	Changing major, applying for financial aid or other behaviors immediately after advising appointment (+)	
Educational and career goals are reasonable	Pre-college academic skills are in line with the profile of initial major (+)	
Delayed gratification/prioritization	Taking more difficult courses early (+)	No economic hardship, family support, but working full-time, COMPASS (Question 1)

*Stubbornness was found in this study to be perseverance or goal commitment carried to a negative outcome: the inability to make any additional progress towards one's degree as is the case with earning a GPA too low to graduate or remaining with a major which requires an unachievable GPA for candidacy.
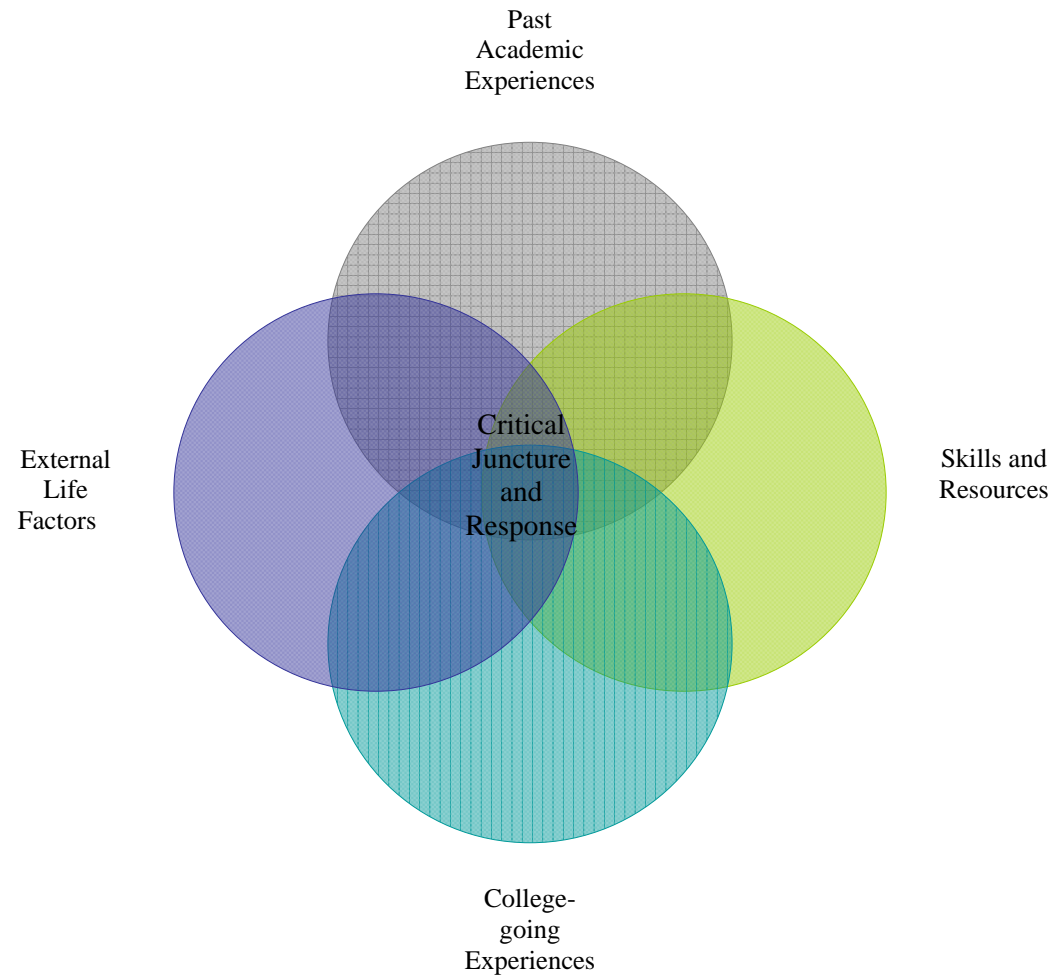
Table 8
Examples of Potential Repurposing of Existing Data Elements as Measures of Students'
Personal Resources or Constraints Suggested by the Study's Interpretive Findings

Personal resources/constraint	Direct Measures	Indirect Measure
Work	COMPASS (Question 1)	Patterns in course selection (all day or all evening)
	Income from Financial Aid application data; COMPASS (Question 6)	Not applying for/qualifying for financial aid
Parent of young children	COMPASS (Question 7)	Patterns in course selection (all day courses)
Single parent	COMPASS (Question 5 and 7)	
Financial hardship/need	Income from Financial Aid application data; COMPASS (Question 6)	Amount of Financial Aid awarded;
Commute	Distance/time between home and [the study college]	Estimated distance/time added if one also works (+)
Family support	Income from Financial Aid application data	Not applying for financial aid (+)
		Does not qualify for financial aid
		Family information from Financial Aid application data; marital status, COMPASS (Question 5)
Nativity	Resident status information collected for the purpose of determining tuition	
Past educational experiences	High school transcript data	
	Participation in adult and continuing education programs	
	Prior college performance for transfers	

Diagram 1 Interpretive Model of Critical Junctures

Past
Academic
Experiences

External
Life
Factors

Skills and
Resources

Critical
Juncture
and
Response

College-
going
Experiences

Appendix B
Interview Protocol

Pre-interview Preparation

Prepare and review academic transcripts of the students who will be participating. This will provide insights into participants' experiences at [the study college] and will allow the interviewer, to the extent possible, to anticipate or shape interview dynamics. Include learning community, GPA, credits attempted by semester, ePortfolio, financial aid applied for 2007-08, financial aid awarded 2007-08, developmental courses tested into, developmental requirements not completed, and number of times accessed [online transcript system].

I. Distribute and Obtain Signature on Consent Release Form

As discussed on the consent form, you do not have to answer any of the questions for whatever reason. You may also terminate your participation in this interview at any time for whatever reason.

Before we begin, do you have any questions?

II. Question Sets

A. Causes and sources of interviewee's decision to take a lighter load, stop-out or leave [the study college][27]

When did you realize that you were going to [take a lighter load/stop-out/leave [the study college]]? [Probe: before fall 2007, during fall 2007, during the beginning of spring 2008]

What contributed to or led to your decision to [take a lighter load/stop-out/leave [the study college]] *in the Spring 2008 semester?*

[Additional probe—if unanswered in the response and where appropriate]

What sorts of difficulties, pressures, responsibilities or experiences influenced your decision to [take a lighter load/stop-out/leave [the study college]]?

[Additional probes—if unanswered in the response and where appropriate]

---

[27] As discussed in the study proposal, a potential leaver is considered a student who did not enroll in the spring and fall 2008 semesters.

Institutional Sources

Did any experience at [the study college] influence your decision to [take a lighter load/stop-out/leave [the study college]]?
[Optional probes—if unanswered in the response and appropriate]
Did a lack of quality service or attention from professors or particular college offices influence your decision to [take a lighter load/stop-out/leave [the study college]]?

Did you have difficulty getting a good schedule, especially courses and lab times?

What could [the study college] have done that might have made it possible for you to continue going full-time?

[Optional probes—if unanswered in the response and appropriate]
Could [the study college] have provided you more information about courses, requirements, schedules or various services that you think could have helped you maintain a full-time load?

Were they any other things that contributed to your decision to [take a lighter load, stop-out or leave [the study college]]
[Possible probes: commute, had something else to do, just taking a break]

Academic Sources

Did any difficulties with your studies play a role in your decision to [take a lighter load/stop-out/leave [the study college]]?

Were you doing okay at [the study college] before [restate above academic difficulty or experience]*?*

How did you feel about your grades? Did you have any incompletes?

[Leave off any that have been answered above.]
If you needed developmental course work, what role did that play in your decision to [take a lighter load/stop-out/leave [the study college]]?

Did your decision to [take a lighter load/stop-out/leave [the study college]] *have anything to do with wanting more time to improve your GPA or performance in a particular course/subject*?

Financial Sources

Did difficulties with financing college play in your decision to [take a lighter load/stop-out/leave [the study college]]?

Did you encounter any problems when you applied for financial aid?

Work Sources

> *Did work responsibilities play in your decision to* [take a lighter load/stop-out/leave [the study college]]?

> [Optional probes—if unanswered in the response and appropriate]
> *How many hours per week do you usually work?*

> *Is your schedule fixed or flexible? What is your schedule?*

> *Is the job so difficult that it makes attending classes and doing your assignments challenging?*

Family or Personal Sources

> *Did family responsibilities or personal issues play in your decision to* [take a lighter load/stop-out/leave [the study college]]?

> [Optional probes—if unanswered in the response and appropriate]
> *Did you need more time to* [take care of a sick family member/child; move; handle a relationship problem; take care of yourself]?
> [If yes] *Could you please describe how that event influenced your decision to* [take a lighter load/stop-out/leave [the study college]]

B. Interviewees' decision-making process to take a lighter load, stop-out or leave [the study college]

Before making your decision to [take a lighter load/stop-out/leave [the study college]], *did you seek help or talk with from anyone or any office at the college to help you remain full-time*?
> [Probe for: professors, staff or advisement, transfer, tutoring, counseling, financial aid, ombudsman, child care, [other] office]

If you did, at what point in time? What role did your contact with this [person/office] *play in your decision?*

Did you talk about your situation with anyone at outside of [the study college]?
> [Probe for: friends, family, clergy/religious person, [other] professional]
> *If you did, at what point in time? What role did your contact with this* [person] *play in your decision?*

What relationship did you think [taking a lighter load/stopping-out/dropping-out] *would have in making progress towards your degree at the time you made the decision?*

What relationship do you think [taking a lighter load/stopping-out/dropping-out] *has had on*

making progress towards your degree now?

Will you try to switch back to full-time? What does that decision depend on?

If you were to start [the study college] all over again, would you do anything differently?

C. Prior academic preparation, and work and career goals

How do you think that your high school experience did or did not prepare you for your work at [the study college]? [Probe: academic preparation {subject: math, English, writing}, time-management, scheduling, taking notes]

What are your educational goals?

> [Optional probes—if unanswered in the response and appropriate]
> *What would you say is your motivation for those goals?*
>
> *Are you thinking of transferring? If so, when and to what school and why?*

What are your career goals?

> [Optional probes—if unanswered in the response and appropriate]
> *What would you say is your motivation for those goals?*

Do you see your educational goals as related to your career goals?

D. Academic behavior and academic and social integration/support

I'd now like to get some further perspective on your experience as a student at [the study college].

> **Academic Behavior**
>
> > *What percentage of your classes are you/were you able to attend per day or per week?* [prompt suggestions: half, three-quarters, all]
> >
> > *How much have you been able to study for your classes* [per day/per week]*?* [prompt suggestions: 1 hour per day, five hours per week
> >
> > *Where do you study?*
> >
> > *Is* [place] *quiet and without distractions?*
> >
> > *When do you study?* [prompt suggestions: during the mornings/evenings/on the weekends]

If you took a course with an ePortfolio component, did your work actively on your ePortfolio?

Academic Integration

Do you/Have you had conversations with any of your professors outside of class?

Do you find your professors encouraging and supportive of your work?

How often do you see an/your advisor? Do you find your advisor(s) helpful?

Did you participate in the learning communities at [the study college]?

Did you seek out tutoring help?
[If yes] *Was it a positive experience?*
[If no] *Why not?*

Social Integration

*Have you made friends here at [the study college]? If so, what percentage of your friends did
    you meet here?*

*Do you study with other students? If yes, describe how and when you might typically meet
    and do your course assignments.*

Are you active in any clubs or student government?

What do you do on campus when you are not in class?

*Have you experienced any sort of discrimination or mis-treatment at [the study college]
that influenced your decision to* [take a lighter load/stop-out/leave [the study college]]*?*

F. Emotional and personal support

*My last questions relate to the supports you have from family, friends and acquaintances
regarding your education.*

Do you have a family member or friend who is encouraging and supportive of your education?
    [If yes] *Could you please describe how they encourage and support you.*

That completes my interview. Do you have anything further that you would like to say?

Thank you very much. I've learned a great deal.