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# Pace, Academic Progress, and the Antecedents of Student Motivation

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PACE, ACADEMIC PROGRESS, AND THE ANTECEDENTS OF STUDENT MOTIVATION

A Thesis  
Presented to the Faculty of the School of Education of the  
University of San Francisco

In partial fulfillment of the requirements for the degree of

MASTER OF ARTS  
In  
Organization and Leadership

By  
Aaron R. Hiatt

Fall 2014

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SIGNATURE OF APPROVAL

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## CHAPTER 1

### INTRODUCTION

American post-secondary education is in the midst of a transformation owed to a variety of tremendous social, economic, and political forces. The rapid shift from a production to a knowledge-based economy increasingly requires a workforce that is educated beyond the secondary level (Williams, 2007). Post-secondary education, in turn, is responding to provide education that labor markets require. In addition, changing educational demographics, advances in communication technology, and broad public funding of individual education objectives have greatly increased the volume and type of post-secondary education seekers beyond the traditional scope.

While post-secondary student enrollment (especially in nontraditional institutions) has dramatically increased in response to evolving market needs, this growth has been accompanied by an increase in student loan default rates across all post-secondary institution types (U.S. Department of Education, 2012). This and other “program integrity issues” were addressed by federal legislators in a June 2010 notice of proposed rulemaking (Program Integrity Issues, 2010). Subsequently, sweeping regulatory amendments to the Higher Education Act were passed in response to the changing college and federal financial aid dynamic.

Among these program integrity regulations is a prescription for satisfactory academic progress (SAP) policies that requires, for the first time, a specific progress/performance standard to be used by Title IV participating institutions in determining student eligibility for federal student loans. Effective July 1, 2011, these institutions must “[calculate] the pace at which the student is progressing by dividing the cumulative number of hours the student has successfully completed by the cumulative number of hours the student has attempted” (Satisfactory Academic

Progress, 2011). Using this formula, institutions must regularly measure/monitor student progress in order to determine their federal aid eligibility.

The pace at which a student must progress (for federal aid eligibility purposes) is a function of the maximum federal aid eligibility timeframe for that student's program. At the undergraduate level, for instance, the maximum federal aid eligibility timeframe is 150% of the number of credits in the student's program. Thus, to remain eligible for federal aid, an undergraduate student must minimally/cumulatively complete 67% of all credits attempted. (Consider: a student who successfully completes 67% of the credits they attempt each term is mathematically assured to complete the program before attempting more than 150% of the number of credits in the program.)

While graduate institutions are currently free to determine their own maximum eligibility standard (analogous to the 150% undergraduate standard), the pace rule impacts all post-secondary levels of Title IV participating institutions. Institutions are now required to have a pace component within their satisfactory academic progress policies, and they are required to measure student progress against it. In the event that a student does not maintain sufficient pace, the institution must suspend disbursements of federal financial aid according to regulation standards (Satisfactory Academic Progress, 2011).

### **Statement of the Problem**

The pace requirement sets a specific, uniform measure of student progress performance and financial aid eligibility across all Title IV participating post-secondary institutions. This regulation singularly ended a decades old policy of institutional discretion and judgment in determining a student's financial aid eligibility relative to academic progress. Prior to July 1, 2011, institutions were afforded the latitude to disburse aid under the "special circumstances"

exception to minimum required progress (Higher Education Act of 1965, 2013). If a progress deficient student demonstrated that the deficiency was caused by some extenuating, nonacademic circumstance, the institution was free to classify that student as SAP sufficient and disburse federal financial aid to them. As there was no regulatory limitation on applying the special circumstances exception, institutions were enabled to indefinitely retain and disburse federal aid to progress deficient students. The 2011 academic progress amendments, however, eliminated the special circumstances exception and, consequently, subjective academic progress reviews. Instead, the pace formula was prescribed as the gauge of satisfactory academic progress and financial aid eligibility. Though the regulation does narrowly allow probationary financial aid eligibility in the event of deficient progress, probationary periods are strictly bound by continued progress measurement to the exclusion of any other consideration. In no case may an institution disburse aid beyond the maximum timeframe for completion relative to the pace requirement.

Beginning July 1, 2014, Title IV participating institutions must include pace related student progress data in the normal course of their federal reporting requirements that will allow regulators to determine whether the institutions are disbursing aid in violation of the new federal regulations (William D. Ford Federal Direct Loan Program, 2013). Assuming these institutions are duly incentivized to suspend federal aid disbursements when required under the pace mandate, eligibility and accountability for the disbursements falls directly to students. Under non-negotiable threat of loss of federal assistance, students are now compelled to complete a static, bright line percentage of the credits they attempt, irrespective of their personal or academic circumstances at a given time.

The consequences of removing the determination of federal aid eligibility from the judgment of the institution exclusively to the performance of the student, is not accounted for in

the literature. Among the themes in education research concerning policy, federal regulation, accountability, and student performance, emerge three silos of research.

### **No Child Left Behind**

The No Child Left Behind Act of 2001 (NCLB) offers the closest approximation of the program integrity rules in the 2011 Higher Education Act amendments. To the extent that NCLB is a vehicle for student performance accountability consequences, the literature bears out a narrow range of research problems.

Chief among these problems was the impact that NCLB might have on student performance. Jacob (2005) analyzed the effects that Chicago public school accountability policies of the 1990s had on student high-stakes testing performance. This early preview of school accountability/student performance is paralleled by research determining the extent to which school accountability policies across multiple states affected student performance (Dee & Jacob, 2011; Hanushek & Raymond, 2005).

Reback (2008) explored whether NCLB affected groups of students differently relative to their respective performance levels prior to the school accountability policies. In a similar vein, Springer (2008) sought to ascertain whether performance increases in some groups were correlated with decreases in other groups. With a different focus, Chiang (2009) investigated performance changes among students in underperforming schools that fell under threat of sanction for that reason.

These studies are emblematic of NCLB and its impact on student performance. However, there are of course a number of reasons that the SAP/pace research conducted in the present study may not be threaded together with NCLB. Most importantly, the consequences under NCLB are borne by the schools. Students themselves do not directly shoulder the burden of

eventual administrative sanctions associated with their performance. Other important disqualifiers are the age of the affected students (generally, children between 3rd and 8th grades) and the compulsory nature of their enrollment.

### **Persistence/Attrition**

Persistence and attrition (the tendency for post-secondary students to continue or discontinue enrollment, respectively) have been topics of research interest for several decades. To the extent that federal financial aid supports college attendance, there is a conceptually dependent relationship between persistence/attrition and the pace requirement. Certainly, the ability of a student to continue enrollment is now at least partially dependent on the student's performance.

However, persistence and attrition have typically been researched as functions of other variables. Allen (1999), for example, reviewed patterns of undergraduate persistence between freshman and sophomore years in terms of socio-demographic data and academic predictors including GPA. Grebennikov and Shah (2012) focused specifically on voluntary withdrawal patterns at the freshman level and the subjective reasons determining the choice.

Institution level determinants of persistence and attrition have come under particular scrutiny. De Valero (2001) and Golde (2005) each investigated factors, especially within academic departments, that have contributed to doctoral student withdrawal trends. Ivankova and Stick (2007) examined drivers of persistence among doctoral students in a distance education context.

The persistence and attrition research has omitted student performance as a research criterion. The existing research has focused primarily on determinants that are generally outside of the student's control. Indeed, the overall tenor of the literature is institutional self-inquiry.

However, the value of these lines of research falls short of the question of student performance and actual degree attainment. These are a matter of curriculum completion (one possible outcome of the pace requirement), not mere enrollment status.

### **Student Performance and Motivation**

As the primary bearers of the consequences of deficient pace, post-secondary students are now compelled to perform to a specific standard of credit completion. Under the pace rule, students may, in general, attempt however many (or few) credits they would like in a given enrollment period. The rule requires only that they successfully complete a fixed percentage of the credits they choose to attempt over all enrollment periods. Assuming a student is academically capable of satisfactorily completing coursework in his or her program, the student's pace (as calculated in the completed versus attempted credits ratio) is largely dependent on his or her willingness and ability to perform.

There is minimal research into the antecedents and conditions of post-secondary students' academic progression, especially as it relates to course load size and performance motivation. Rodwell and Neumann (2008) studied determinants of time-to-completion among graduating doctoral students. In a related piece, Neumann and Rodwell (2009) more closely analyzed the time-to-completion difference between part-time and full-time doctoral graduates. Because the subject of these studies was students who were graduating (not those who failed), the analyses leave much to be known about the relationship between course load size, rate of progress, and degree attainment.

Attewell, Heil, and Reisel (2012) began to address the latter issues. The focus of this study was academic momentum, or the affect that the size of a course load at the outset of a student's program had on the likelihood of degree completion. Insight here, however, was

limited by the authors' defining momentum as credits attempted, not credits actually completed. This definition of momentum is of little value in the context of the pace rule, which requires a calculation of completed credits.

The literature on post-secondary student motivation and performance/achievement is not well developed. Roebken (2007) attempted to identify various outcomes (including achievement levels) among students grouped according to defined goal orientation types. Liu, Bridgeman, and Adler (2012) studied more directly the effects that motivation had in low-stakes testing conditions. While Liu et al. (2012) subjected participants to specific motivational stimuli, the focus of both studies here was trained on outcomes, not the antecedents or conditions of those outcomes.

The pace rule sets a non-negotiable performance standard that removes institutional judgment from the question of student federal aid eligibility in cases of deficient pace. The shift of eligibility accountability, and the formula that measures for it, raises the topics of attempted/completed credit volumes and student motivation as issues that are of direct relevance to post-secondary educational attainment. The lack of research in these areas is possibly owed, in part, to the non-existence of the pace rule prior to July 1, 2011.

### **Background and Need for the Study**

The pace rule presents a considerable change in federal posture on institutional satisfactory academic progress policy. Prior to the pace mandate, Title IV participating institutions were afforded the latitude to judge progress-deficient students eligible for federal aid under the "special circumstances" clause of the regulation (Satisfactory Progress, 2008). In 2011, this clause was revised out of the code of federal regulations, and with it, institutions' discretion

to disburse aid in all cases where the student is ineligible. Under the pace regulation, federal aid eligibility is driven exclusively by the student's progress performance.

The rule has implications that extend in three distinct areas: federal education policy, post-secondary progress/attainment, and student performance motivation. To date, there is no research producing demonstrable results in these areas with respect to each another, such as they are bound under the pace requirement. While there are strains of relevance and promise in these areas individually, when taken together they suggest an omission in knowledge relative to eventual effects of the pace requirement.

### **Policy (No Child Left Behind)**

The effects of consequential education policies are quantified and qualified in the NCLB literature. There is generally consensus among the relevant studies: accountability policies measurably alter school or student performance, depending on which might be measured, and how.

Using results data collected from the Iowa Test of Basic Skills as administered to Chicago Public School children in grades 3–8, for example, Jacob (2005) found generally significant gains, particularly in math and reading, after a wide-scale school accountability policy was implemented.

Because of the state level differentiation in school accountability structures under NCLB, both Hanushek and Raymond (2005) and Dee and Jacob (2011) assessed student test performance changes using the National Assessment of Educational Progress (NAEP) exam as a proxy for the effects of NCLB on student learning. Both of these studies support accountability policies yielding student achievement gains.

Chiang (2009) refined the research criteria to schools that came under threat of sanction for poor student performance. His findings of student performance gains in such cases were consistent with other NCLB performance studies. Of particular note in his research, however, was that performance improvements were strongest among students who performed most poorly prior to the year in which the school fell under threat of sanction.

While the NCLB literature demonstrates measurable student performance changes in cases of consequential federal policy, accountability under the regulation is borne by schools, not students. Student performance changes under NCLB result from schools adapting to the regulation's requirements. This materially differentiates NCLB (and other school level accountability structures) from the pace rule, which places the burden of accountability on students themselves to the exclusion of institutional intervention.

### **Persistence**

Persistence and its conceptual counterparts (retention, attrition, time to degree) anchor much of the student enrollment/progress literature. To the extent that a student's enrollment status may signal progress in the program, these topics roughly locate an area in which the bases and conditions of that progress also reside.

The research has typically attempted to identify causes of persistence or attrition. Golde (2005) focused on the latter. Among factors he found contributing to attrition were poor student integration in the discipline or department, ineffective advising, and lifestyle challenges imposed by doctoral education.

Persistence is largely dependent on the same family of variables that drives attrition. De Valero (2001) found that trends in persistence were influenced by departmental factors including advising type/quality and climate/culture within the department. These findings were mirrored in

a doctoral distance education study in which faculty, service support, and advising quality were all found to contribute to rates of persistence (Ivankova & Stick, 2007).

There is consistency in the approach and findings in the persistence research, particularly concerning graduate level education as described here. Its objective has been to identify factors that influence the likelihood that a student will either remain in school, or drop out. In the context of the pace regulation and a student's willingness and ability to progress, however, there exists a critical disconnect between whether or not a student is merely enrolled, and the activity an enrolled student must now undertake in order to preserve his/her eligibility for federal financial aid.

### **Progress and Completion**

There is notably little research attention paid to coursework completion or degree attainment with respect to the impulse of motivation or other student-centric factors. Because enrollment persistency has been the historically entrenched objective, research has served an apparent first order institutional goal of keeping students enrolled. Measurable student progress/performance, the factors that influence it, and its possible relationship with educational attainment have not been well investigated.

Roebken (2007) determined that student motivational disposition has a bearing on educational outcomes. Using a three dimension framework to group students by defined goal orientation types, associations were identified between goal orientations and resulting levels of satisfaction, academic engagement, and achievement.

Liu et al. (2012) studied the effects of direct consequence on undergraduate student test performance. They found that test scores varied according to the intensity of consequences.

Students performed best when they were induced to perceive the most severe consequence associated with their test scores.

The impact of course load size on student progress has received some attention. Neumann and Rodwell (2009) found that, among graduate level completers, part-time students (when adjusted for full-time equivalency) finished faster than full-time students. Attewell et al. (2012) examined the likelihood of degree completion with respect to academic momentum associated with course load size. They found that students enrolling in a full-time course load at the outset of their programs were more likely to complete their degrees than students who enrolled in less than a full-time course load.

Though the topic of student progress in the sense iterated here has not enjoyed a wealth of research attention, the literature that does exist is concentrated in just the last few years. While this may signal a gain in traction, the studies are still quite few and relatively disjointed. If the literature is taken at face value, however, a picture emerges in which student motivation becomes central to performance and progress. This motivation may be triggered by looming consequence, which might result in performance gains. Credit load size may also influence the likelihood of success. The importance of a possible relationship between these assumptions becomes much more vivid in the context of the pace rule, which has untested, direct implications upon student progress performance and the limits of educational funding.

### **Purpose of the Study**

The 2011 amendments to the satisfactory academic progress regulations were “designed to implement a more structured, comprehensive, and consistent approach to the development and implementation of institutional satisfactory progress policies” (Program Integrity Issues, 2010, p. 34821). The prescription of uniform standards/limits within institutions’ SAP policies is

intended to benefit the student. “Having a clear understanding of an institution’s satisfactory progress policy will help students understand the institution’s academic expectations and will increase the likelihood of their academic success” (Program Integrity Issues, 2010, pp. 34821-34822). Accordingly, the purpose of this study was to determine whether the pace rule, as iterated and broadcast in the case institution’s satisfactory academic progress policy, serves the stated public goals of clear student understanding of progress requirements and enhanced likelihood of academic success.

The pace rule presents an untested federal disposition on satisfactory academic progress. Because federal financial aid eligibility is tied directly to a student’s pace, this relatively anonymous bit of legislation has significant public policy implications, particularly with respect to enrollment trends, degree attainment, and the ability of the nation’s education trust to produce more graduates amid growing demand. Though this study’s design and purpose did not include enrollment and federal aid statistics, a considerable association between post-secondary enrollment data and federal assistance was assumed.

### **Research Questions**

Following the purpose of this study and its contextual background, three questions guided the research:

1. To what extent does the pace requirement contribute to students’ understanding of the case institution’s academic progress expectations?
2. To what extent is a relationship discernible between enhanced student understanding of progress requirements and course registration or completion tendencies?
3. To what extent does student understanding of the pace rule contribute to motivation to complete coursework?

While formulation and testing of hypotheses is outside the scope of this study, the research questions are related under the possibility that the interview participants' course registration behavior may be influenced by their understanding of the pace requirement. In addition, it is expected that participants who tailor their course loads to their individual ability will experience increased motivation to complete their coursework.

### **Conceptual Framework**

The success of this inquiry partially depended on determining student motivational amplitude. The need to assess motivational force poses an apparently significant conceptual hurdle, and particularly within the confines of qualitative design and analysis. To effectively interpret information collected from the research participants and cogently answer the questions driving this study, the model of motivational force must readily accommodate individual experience and expression.

Hiatt (2015) proposed a model of motivational force specifically framed for the subjective experience of the individual. This model leverages the human need to self-actualize (Maslow, 1943) to articulate a version of expectancy theory (Vroom, 1964) that is consistent with the human condition. The result is a formula in which motivational force is the product of the squares of the valence that a person associates with an outcome (desire, roughly), and the belief that he/she is capable of achieving the outcome.

Hiatt's person-centered expectancy motivation model offers a number of advantages that particularly suit it for use in this study. First, as suggested, it relieves the need to objectively quantify what is a fundamentally subjective experience, as well as the inherent dilemma posed by that need. Its use of self-actualization alters the mode of gauging motivational force. The increments of motivation are not measured by control or standard, but are depicted instead by the

individual. Not only does this person-centered expectancy model allow for outside conceptualization of motivation through individual expressions of desire and ability, it depends on them. With the primacy of subjective experience presumed, Hiatt (2015) suggested that the force of an individual's motivation defies measurement except by understanding. For this reason, qualitative research approaches may yield meaningful results.

Another important advantage of the Hiatt model is clarity. Because valence and instrumentality may be articulated in lay terms (desire/ability) that require no specialized knowledge or instruction, the researcher was able to freely probe along these themes with certainty that answers would be reliable. High reliability in this person-centered construct, in turn, allows analysis and discussion to wade deeply into the participants' full reflections. In this sense, reflexive emphasis given by participants is as informationally viable as the rationalized substance of the answers and descriptions, themselves.

Finally, the formula is straightforward and may be applied effectively without the burden of complex mathematics or delicate theory. While Hiatt's model is written mathematically as the product of the squares of valence and instrumentality, it is not necessary or preferable for the purpose of this study to labor through compounded terms. The model describes motivational force as the product of the equal exponentiation of two components. Distilling away this exponentiation yields a framework of simple valence and instrumentality that is logically analogous to the parent model. If relative motivational force is understood, inferences of capability and/or desire might be made. Similarly, knowledge of any two of the formula's elements allows a more refined sense of the third.

The phenomenon of human intentional behavior is commonly subject to classification by type (intrinsic, extrinsic, etc.). Few motivational theories, however, attempt to quantify

motivational force. Hiatt's person-centered expectancy motivation model leverages subjectivity, an apparent paradox of quantifying motivation, to reframe an outside understanding of motivational force from the perspective of the individual. This tool allows insight into motivation in dynamic circumstances of desire and perceived ability. For the purposes of this study, it enables assessments of student academic behavior in those circumstances, and interpretation of their actions or omissions from a motivation perspective.

### **Limitations**

The restricted scope designed for clearest and most precise focus is also this study's primary limitation. There are at least two issues that the reader should take into account when framing this study for other purposes.

First, the case institution is a mixed delivery (primarily distance) graduate school. While the delivery format is particularly relevant to institutions that are growing enrollment or enhancing existing programs with distance models, graduate education is typically undertaken by students who have already completed at least one post-secondary degree. If undergraduate enrollment is comprised largely of first-time degree seeking students, then it should not necessarily be assumed that graduate level student motivation conditions are applicable. Indeed, to the extent that motivation is a phenomenon experienced subjectively within one's environment at a given point in time, the results here (or in any other institution) may be considered unique.

Second, this research is descriptive and qualitative. While there is an appearance of effects associated with the implementation of the pace rule, insight does not penetrate beyond the information collected to predict outcomes. A primary goal of this study was to determine whether the pace rule was clear to students and whether it affected their motivation. The researcher assumed that the answers of the students would satisfy these research objectives.

## **Significance to the Field**

This study is distinguished and contributes to the field for a number of important reasons. First, it correctly addresses academic progression as the most vital aspect of degree attainment. Because the pace requirement ties financial aid eligibility to measurable progress, this study moves the research discourse beyond unqualified persistence and shifts the focus from the determinants of enrollment status to the determinants of academic engagement.

Furthermore, this study clarifies and emphasizes the role of motivation in assessing student academic behavior and outcomes. Hiatt's (2015) person-centered expectancy motivation model is introduced here, which is used to gauge interview participants' relative motivation level and associated academic outcomes. This model moves motivational force away from the moorings of philosophical abstraction or conceptual typology toward defined amplitude from a person-centered perspective. Its utility allows deductions and predictions to be rendered more easily, and positions future research to more firmly and accurately use motivation as a research implement.

Recent federal legislative efforts signal a shift in public policy more sharply toward accountability and consequentiality. Like No Child Left Behind, the program integrity legislation (and its pace requirement) represents a tightening of federal regulation around accountability and measurable outcomes. The impact of more rigid consequential federal education policies must be assessed as thoroughly and timely as possible in order to better inform future legislative efforts. To the researcher's knowledge, neither the pace rule, nor any other component of the program integrity rules, is present yet in published research. This study offers a starting point from which the pace rule and the determinants of student progress might begin to be inventoried. The

significance of this study with respect to those that may follow and/or public policy will be determined.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### **Overview**

It is no longer possible for Title IV participating institutions to review progress-deficient students under a special circumstances clause and continue to disburse federal aid to them for that reason. Under the 2011 Satisfactory Academic Progress amendments, institutions are now prohibited from disbursing federal aid to students who do not maintain sufficient pace. While there is limited provision for institutions to review student appeal of eligibility loss, the restrictions on aid disbursement in pace deficiency and appeal situations are explicit and finite. With institutional judgment factored out of the progress/eligibility relationship, the responsibility for establishing and maintaining financial aid eligibility falls solely to the student.

These regulatory changes were designed to increase student understanding of progress requirements and improve their chances of academic success (Program Integrity Issues, 2010). The rigidity of the pace requirement and the law's objective of student success are reconciled by themes including policy impact, accountability, consequence, progress, performance, and motivation. In the context of education research, these themes coalesce in three distinct subject areas: No Child Left Behind, bases of persistence/attrition in higher education, and student motivation research.

#### **Accountability Policies/No Child Left Behind**

The scope of literature including policy/regulation and student performance narrows to the No Child Left Behind Act of 2001. The consequential accountability of NCLB signaled a regulatory expectation that student success must result from federal funding. The pace requirement is rooted in the same federal expectation of student success. From a policy impact

perspective, with respect to the federal strategy of consequential accountability, the effects of NCLB offer a basis from which the pace rule might be qualified.

Jacob (2005) addressed the topic of results-based educational accountability in the wake of the passage of No Child Left Behind. Citing a distinct lack of empirical results-based accountability research, the author examined several years of standardized test result information relative to the implementation of a school accountability policy in Chicago Public Schools in 1996. The range of data generally spanned 1994 to 1998 and included students in grades 3 through 8 taking the Iowa Test of Basic Skills.

While the records revealed that generally significant gains were realized (especially in math and reading) after the implementation of the policy, the gains were influenced by factors besides improved student learning. Among these factors were “gaming” behaviors that resulted in a higher performing pool of test takers (such as flunking students in higher numbers at critical grade levels, or reassigning students to special education or foreign language learner status). Other factors included increased student effort in cases where entry to high school was at stake and improvement in selectively emphasized test-taking skills.

Hanushek and Raymond (2005) used broad scale NAEP test results to analyze the ways in which school accountability policies affected student math and reading test performance. Data were gathered from several years prior to NCLB from states that had already enacted school accountability systems. When controlling for variables including parent education level, school spending, and school/student racial composition, accountability policies were found to increase test performance across all identified racial subgroups. In refining test results according to the type of accountability by school, it was found that test performance gains were most pronounced

among schools that were subject to test performance consequences (sanctions, etc.). The requirement for schools to simply report test results had little impact on those results.

Accountability policy was further isolated as the primary variable associated with performance gains. Differences in per-student spending were examined, for example. However, “the pattern of NAEP scores across states [was] not explained by spending” (Hanushek & Raymond, 2005, p. 310).

This study offered a counterpoint to the school gaming behavior identified in Jacob (2005). An at-large concern has been that schools could manipulate average test scores by selectively funneling students into special education status. However, special education placements rates were demonstrated here to have a statistically insignificant correlation with the introduction and continuation of accountability policies.

Chiang (2009) examined the testing/performance gains measured in underperforming schools that came under the threat of sanction for that reason. Strongest performance gains were made by students who performed most poorly in the year prior to the sanction-threat year. To determine the extent to which educational reform measures resulted in test score improvements, data in the first year of school sanction threat were compared with subsequent years’ results for the same population of students after they moved on from the elementary level. Year-over-year data indicated that student test improvements in math persisted 1-2 years after the sanction-threat year. While test results in reading also improved in the sanction-threat year, they did not experience similar longevity. Consistent with Hanushek and Raymond (2005), Chiang (2009) concluded that improvements in test scores were not accounted for in schools that were strategically reclassifying students into special education status.

These studies are representative of the NCLB literature with respect to consequential accountability. While there has been some indication that accountable schools have engaged in gaming behavior (Jacob, 2005), these are subsumed by findings that connect enhanced student learning to school actions under NCLB. Interview information provided by the relevant school principals in Chiang (2009), for example, indicated a reasonably uniform school response to threat of sanction, including “increases in school expenditures on instructional and curricular development, teacher training, and technology surmised to support assessment-driven instruction” (Chiang, 2009, p. 1046).

Though positive effects of consequential accountability have been demonstrated in the context of NCLB, similar research with respect to the pace rule is absent from the literature. NCLB and the pace rule have little in common apart from consequential accountability. The differences in whom the pace rule affects, and how, require that it be separately charted in policy research.

### **Enrollment Persistence**

When reframed for post-secondary education, persistence (and its variants) emerges as the literature’s dominant feature. Since academic progress can only occur during periods of student enrollment, bases of persistence and attrition are issues relevant to the pace requirement. Graduate education enjoys particular attention in the persistence literature.

Golde (2005) examined underlying causes of doctoral student attrition among four departments at Midwestern University. Research methods included data collection from enrollment records, researcher self-immersion into department academic and student activities, and interviews conducted with students who withdrew from their programs. Attrition related

factors included, but were not limited to, poor student fit with the department or discipline, student/advisor mismatch, and struggles with the realities of doctoral student life.

The article highlighted areas that might reduce attrition, but it did not directly address the possibility of poor academic performance and/or slow progression as possible underlying causes. However, looming progress requirements (qualifying for candidacy, or completing Incomplete courses) did contribute to attrition, which suggest a possible relationship between progress requirements and persistence.

De Valero (2001) also focused on the department level, but with respect to factors associated with persistence, time-to-graduation, and rates of graduation. Using student records data at a land-grant research university, academic departments were categorized according to their students' persistence and graduation rates. Interviews conducted with students and faculty indicated that advising quality and departmental climate were associated with persistence and graduation metrics. Department policies were also stated to be relevant. However, no information about what those policies were, or how they may have differed between departments, was provided.

Like Golde (2005), de Valero (2001) placed the academic department at the center of persistence and attrition trends, depending on the relative quality of the identified department characteristics. Also like Golde (2005), de Valero (2001) touched upon but largely omitted the substance and detail of actual student progress as a possible determinant of persistence and, more importantly, degree attainment.

Ivankova and Stick (2007) assessed the determinants of persistence in a distance doctoral program offered at the University of Nebraska. Methods included quantitative survey analysis and qualitative analysis of extensive interviews conducted with four students (three of whom

completed or were still enrolled, and one of whom withdrew shortly after matriculating). The results were largely reflective of other studies' findings. Faculty, service support, and advising quality were all found to influence persistence. This study was uniquely distinguished by its examination of a distance education program, which is directly relevant to the case institution in the present study.

Persistence has been objectified in several decades of literature. To date, the research assumes a value dichotomy in which persistence sits opposite attrition. Under the terms of the federal pace requirement, which severs a student's aid eligibility in absence of progress, unconditioned persistence becomes the very design of attrition. For this reason, research primacy must shift from the determinants of enrollment to the determinants of progress. Persistence must now be considered subsequent, consequent, or incidental to the activity a student undertakes toward degree attainment. From this perspective, there is deep incongruity between the extant literature and the requirements imposed by the pace requirement.

### **Student Performance Motivation**

Student motivation is commonly but incidentally raised in the persistence literature. Ivankova and Stick (2007) found that student motivation, among other factors, contributed to persistence. Similarly, Allen (1999) identified motivation as a factor impacting persistence among minority undergraduate students. Student motivation was cited by 75% of faculty and 42% of students as a "major determinant of student success" in de Valero (2001), but no definition of success was provided (de Valero, 2001, p. 362).

Under the pace requirement, however, the causes and effects of motivation are central to the issue of a student's ability to remain enrolled. Because the requirement hinges financial aid

eligibility directly on student progress performance, motivation is the conceptual nexus between the policy's demand and the student's performance response.

Motivational cause and student performance effect are found in Liu et al. (2012). They conducted a broad study to determine correlation between student motivation levels and academic performance in low-stakes testing. The ETS Proficiency Profile exam was administered to several hundred undergraduate test subjects across three differently motivated groups. The control group received no motivation incentive. One test group was told that their scores would be averaged with all other test takers in their institution to inform employers and others about the relative academic quality of their institution ("institutional" condition). A second test group was told that their test scores would be shared with their faculty and prospective employers to determine academic ability ("personal" condition). Test results strongly correlated student motivation and test results, with the personal condition measured to be the most motivating and yielding the highest performance gains. In this instance, strength of performance was related to the perceived magnitude of the consequence.

Roebken (2007) investigated the effects of student goal orientation on their behavior and academic outcomes. Using data collected from over 2,000 undergraduate survey respondents, the researcher developed a three prong classification system with respect to academic content mastery, quality performance, or work-avoidance tendencies.

It was found that different goal orientation types resulted in different behavior and academic outcomes. Students with both performance and mastery dispositions, for example, were measured with higher grade point averages than those with mastery orientation alone. Students of a work-avoidance/performance orientation were found to achieve lowest among all students.

Both Liu et al. (2012) and Roebken (2007) presented definition incompatibilities with respect to the pace requirement. Their concept of performance was a quality measure (GPA, test grades), not volume or speed of coursework completion that are the relevant measures of performance under the pace requirement. Furthermore, though Roebken's (2007) goal orientation framework proved useful for determining behavioral and academic outcomes, the research design omitted antecedents of those motivational dispositions.

Course load size, for example, might bear upon student motivation and/or a student's ability to progress academically. Neumann and Rodwell (2009) found a stark contrast in time-to-completion between part- and full-time doctoral students at one Australian university, when weighted together in full-time equivalent terms. "Using FTE-weighted graduation times, 19.5% of full-time students [graduated] in four years or less, whereas 72.5% of part-time students completed in four years or less" (Neumann & Rodwell, 2009, p. 61). These figures were raised only with respect to students who had actually completed their programs, however, not those who failed to complete. Because of this exclusion, there are no inferences to be made about part- or full-time status, and relative likelihood of completion.

Another finding suggests variable independence between student satisfaction and their progress. Despite completing much faster than full-time students (in full-time equivalent terms), part-time students were "less satisfied with the infrastructure support provided by their institutions and departments, and [had] a less favourable perception of the research climate of their department than full-time research students" (Neumann & Rodwell, 2009, p. 63). Though this finding is specific to completers, it significantly blurs the conventionally presumed relationship between student success and student satisfaction within the persistence literature.

The effect of course load size on student progress is also reviewed in Attewell et al. (2012). They described academic momentum as a phenomenon whereby students who successfully complete coursework at the outset of their programs continue to do so in subsequent terms.

Using data from the National Center for Education Statistics (NCES) and controlling for variables, including the family socioeconomic status, the authors determined that students who enrolled part-time at the outset of their programs were less likely to complete their degrees as compared with students who began their programs at full-time levels. The opposite, however, did not hold true. There was no indication that students attempting high credit totals (18+) in their first term complete their degrees in higher numbers than those enrolling full-time at less than 18 credits.

There are two important points of distinction to be made with respect to the research presented in this thesis. First, the NCES data included only students in 2- and 4-year undergraduate programs. Momentum trends at the graduate level were not included. (Additionally, there is no refinement of analysis for, or suggestion of, traditional versus distance student populations.) A second, much more critical distinction was the authors' interpretation of academic momentum, which they defined as credits attempted (not credits successfully completed). Completing coursework was interpreted to be the eventuality of the academic momentum of attempting credits.

While this interpretation of momentum seems unsteady at face value alone (the mere registering of coursework, effectively), the authors directly contradicted their initial definition of momentum by later stating that momentum is "the speed with which undergraduates progress"

(Attewell et al., 2012, p. 39). Speed of progress directly implies completing, not just attempting, coursework.

The student performance motivation literature is not well developed and presents incompatibilities with respect to the pace requirement's role in student performance behavior. Liu et al. (2012) induced student performance behavior in test taking situations only. Roebken (2007) looked more closely at student behavioral disposition and resulting academic outcomes, but suggested that future research determine "how goal orientation develops, changes and how it affects motivational and educational outcomes" (Roebken, 2007, p. 698). Finally, Neumann and Rodwell (2009) and Attewell et al. (2012) suggested that the amount of coursework a student takes has some bearing on completion outcomes. These various studies are related in the pace dynamic, which combines policy demands, defined consequences, and behavioral requirements. However, there is a gap in the literature where these three concepts intersect.

### **Summary**

To remain eligible for federal financial assistance, post-secondary students are now compelled to successfully complete a fixed percentage of the course credits they attempt. This pace requirement involves issues of federal education policy, academic progression, and performance motivation. The research in each of these areas was not conducted in a pace rule context or under any other set of conditions that is directly relevant to this new piece of legislation, but they are related by it. The present study is designed to directly address this relationship and help fill the attendant gap in the literature.

## CHAPTER 3

### METHODOLOGY

This research was conducted in a single case institution. Saybrook University is a private, nonprofit graduate institution with master's and doctoral degree programs in psychology, organizational systems, human science, and mind-body medicine. It was founded in 1971 and has been continuously accredited by the Western Association of Schools and Colleges since 1984. The full-time enrollment count at the time of the research was approximately 600, with roughly 500 enrolled in distance or mixed delivery programs. The calendar follows a semester model, with a summer term in select programs. The researcher is also the institution's registrar.

The institution introduced and has enforced a pace requirement as part of a complete revision of its satisfactory academic progress policy effective Fall 2011. The rule applies a 150% standard. Students must successfully complete all credits in their program before attempting more than 150% of the credits in the program. This implies that students must complete, minimally, 67% of the credits they cumulatively attempt over all semesters of their enrollment to remain eligible for federal assistance. Academic progress is calculated after each semester, including the summer term.

Because the research questions were developed within the confines of student intentional behavior and subjective experience, a portion of this study is driven by qualitative information. Descriptive course completion data are also presented. Information and conclusions reached from these two complementary sources sufficiently illuminate the object of this inquiry.

The interview subject pool was narrowed to students enrolled in a group of administratively related programs that exhibit the highest proportion of pace-deficient students each semester. The programs are delivered primarily at a distance and comprise the majority of

the institution's student body. In addition, students in these programs enjoy the freedom to design their course schedule each semester.

Interviews were conducted by phone to discuss pace and student motivation. Participants were solicited based on their cumulative pace performance as calculated at the end of the Spring 2014 semester. To ensure the best chance that interview participants had familiarity with the pace policy and possibly clearest perspective on its motivating impact, only students on the margins of the minimum satisfactory pace threshold were solicited for interviews. Two participants persisted under the minimum pace requirement during both Fall 2013 and Spring 2014. Three students had improved themselves to good standing during Spring 2014 after a pace deficient Fall 2013. Two students persisted just above the satisfactory pace threshold over Fall 2013 and Spring 2014. Questions were prepared in advance to determine participant understanding of the case institution's pace policy, its impact on their motivation, as well as other bases of their performance motivation. The interviews were recorded and transcribed from audio by the researcher.

Registration and course completion data were mined from the case institution's records system. These data were collected manually, using no specialized instrumentation. The institution's records system reporter was made available to draw information on course registration and drop patterns, as well as speed to completion rates for pre-doctoral candidacy coursework. Candidacy qualifying course data were gathered manually by the researcher from the institution's records system. Days to completion for this information was also calculated manually. Academic progress results were pulled from the institution's existing satisfactory academic progress records.

The descriptive data were organized and framed over the years immediately preceding and following the introduction of the pace requirement at the case institution in the Fall 2011 semester. A comparative analysis was conducted across four dimensions of these descriptive data to assess possible changes in course completion patterns with respect to the introduction of the pace requirement. Interview information was analyzed using a person-centered expectancy model of motivational force (Hiatt, 2015) to contextualize the student behavior driving changes in the descriptive data and to assess academic outcomes among the interview participants.

## CHAPTER 4

### RESULTS

Information was collected through interviews conducted individually with seven participants. In addition, course completion data were mined from the institution's student information system. These information sources were intended to bring answers, as directly as possible, to the first two research questions: To what extent does the pace rule contribute to student understanding of academic progress expectations at the case institution, and to what extent is a relationship discernible between enhanced understanding and course registration or completion tendencies? Interviews also yielded extensive information relative to progress policies and student motivation. That information is presented with respect to person-centered expectancy motivation (Hiatt, 2015) to discern the antecedents and outcomes associated with the participants' relative motivational force.

#### **Student Understanding of Progress Requirements**

Interviews were structured across two primary topics. The first portion of each interview was devoted to determining participant awareness of the pace rule and their familiarity with its requirements. (To reiterate for clarity of this section, pace is the cumulative ratio of credits earned versus credits attempted.) In addition to directly polling students on this topic, the related topics of financial aid need and deficient progress consequences were also explored.

When asked if they had heard of the pace requirement, six of seven participants indicated that they had. However, of these six, none were aware of the pace requirement until they received a notice of pace deficiency from the administration during the normal course of academic progress review. The lone participant with no awareness of the pace requirement was the only participant who did not at any point run afoul of the minimum pace threshold for good

standing. As the institution only distributed progress notices to progress deficient students, this respondent did not at any time receive a notice indicating good standing or the basis for that status. However, she did indicate awareness that the institution has a satisfactory academic progress policy.

In general, participants' understanding of the pace rule was vague or incorrect. Only two participants were able to reasonably articulate the policy as a rate of progress driven by the ratio of credits earned versus credits attempted. Only one of these two understood the ratio to be cumulative. This basically correct understanding was significantly outweighed by a preponderance of misunderstanding among the remaining five. Of these five, four had indicated awareness of the pace rule. While all four understood pace to be an academic progress policy, one described the pace measure incorrectly and three were unable to describe the measure at all.

Six of the seven participants indicated reliance on federal financial aid to fund their enrollment at the case institution. Of these six, all indicated strong or complete dependence on federal aid to remain enrolled. Four indicated that loss of aid would end their enrollment. The remaining two expressed some ability to pay out of pocket in the event of loss of aid, but at considerable financial hardship and only to the extent that they were nearing degree completion. The participant who did not draw federal financial aid was a VA beneficiary with a fully funded tuition benefit.

Weak participant understanding of the measure of satisfactory academic progress contrasted sharply with their clear understanding of the consequences of deficient progress. Six of seven participants independently expressed or confirmed upon question that deficient progress results in loss of financial aid eligibility. Five of these six independently articulated dismissal as

another consequence.<sup>1</sup> Among those who cited both consequences was the only participant who had never actually come into violation of the progress requirements. She was aware of the financial aid consequence “because it happened to one of [her] friends.” Despite having received a notice of progress deficiency at the end of the Fall 2013 semester, the sole participant who had no awareness or understanding at all of the consequences of deficient academic progress was the VA beneficiary receiving no federal student financial aid.

To the extent that interview participants may be representative of the population of students on the margins of progressing satisfactorily at the case institution, the considerable weakness of their understanding of the pace requirement is nonetheless contrasted by their awareness of the consequences of progressing insufficiently. Thus, while the legislation’s stated goal of increased likelihood of student success may not necessarily be served by clear student understanding of the academic progress requirement itself, it may possibly be served by student understanding of the consequences.

### **Course Registration and Completion Tendencies**

Central to the question of the pace requirement’s effectiveness are student success outcomes that the satisfactory academic progress regulations are intended to realize. With respect to the pace rule itself, the primary measure of student success is the rate of coursework completion. Related to this measure of success is the possibility that the pace requirement influences students to adapt their attempted credit loads in order to increase the likelihood of maintaining satisfactory pace. Course completion and registration information was collected to determine whether there were identifiable pattern shifts relative to the introduction of the pace requirement at the case institution.

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<sup>1</sup> The pace requirement and SAP legislation do not impose consequences beyond the loss of financial aid eligibility in the event of deficient progress. However, the case institution's progress policy does include dismissal as an eventual consequence of continued progress deficiency beyond the point of loss of financial aid eligibility.

## **Course Registration/Drop Pattern Shifts**

Until the pace rule was implemented at the case institution in Fall 2011, students in programs forming the basis of this study faced no consequence for dropping courses, provided they remained at least half-time status and completed a minimum of six credits per semester. In addition, students were free to drop courses at any point throughout a semester, both before and after the implementation of the pace policy. Beginning in Fall 2010, a deadline was imposed each semester after which point self-drop functionality in the student online portal was disabled. After the self-drop deadline, students effected course drops through the administration. To calculate pace starting in Fall 2011, the case institution used the self-drop deadline as the demarcation for classifying credits as attempted. Courses remaining registered for any length of time beyond the self-drop deadline (including those dropped after the self-drop deadline) were classified and calculated as attempted. For the purposes of discerning possible influence of the pace requirement on student registration behavior, therefore, course drop information was identified as the signal of that influence.

The possibility of pace influence on course drop behavior is supported in the case institution's course drop data. Table 1 presents pattern changes in the percentage of credits dropped before the self-drop deadline. While the self-drop deadline was imposed beginning in Fall 2010, it was not used to define attempted credits until the pace rule became effective in Fall 2011. A change in the pattern of course dropping behavior emerges at that point. Of all credits dropped by psychology students in the Fall 2010 and Spring 2011 semesters, for example, approximately 63% were dropped before the self-drop deadline. Beginning in Fall 2011, however, the balance of credits dropped before the self-drop deadline increased sharply. The

increase coincides with the introduction of the pace rule, which indicates a shift/reduction in course attempt behavior.

Table 1

*Of the Dropped Credits, Percentage Dropped Before the Self-Drop Deadline*

<b>Department</b>	<b>FA 10</b>	<b>SP 11</b>	<b>FA 11</b>	<b>SP 12</b>	<b>FA 12</b>	<b>SP 13</b>	<b>FA 13</b>
Psychology	63.04	62.58	76.80	76.43	80.16	75.32	80.95
Human Science	56.25	50.00	52.63	78.95	78.57	77.78	66.67
Organizational Systems	55.26	67.65	62.16	58.82	87.50	50.00	80.00

Tables 1 and 2 categorize information by department. Breaking out the data by department is useful for two reasons. First, it allows comparisons between autonomous units of academic authority. Data trends are reinforced when exhibited across these boundaries. Second, although these departments collectively enrolled the majority of the case institution’s student body, the human science and organizational systems departments enrolled far fewer students than the psychology department.<sup>2</sup> Isolating the psychology department allows a review of data that is stabilized in sample depth. In Table 1, for example, while the course drop trends are reasonably evident in the human science and organizational systems departments, they corroborate a much clearer pattern shift in the psychology department.

**Course Completion Efficiency Changes**

By limiting the number of attempted credits that federal financial aid will support, the pace requirement compels students to efficiently complete the credits they do attempt in order to

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<sup>2</sup> Five year Spring census data (2009-2013) indicate an average of 274 psychology students in the population sample chosen for this study. Average enrollment in human science and organizational systems over this time period was 34 and 48, respectively.

finish their programs before loss of aid eligibility. If the pace requirement is successful in this regard, course retakes would decrease and completion of courses in a single enrollment period would increase. Table 2 presents the latter of these indicators. After the Fall 2011 semester, when the pace rule became effective, the proportion of credits earned in the original semester of registration began to increase. While not particularly sharp, the increase is reasonably steady over time, as demonstrated in the psychology department. The significance of this trend, however, is more apparent when framed across the span of semesters since the student self-drop deadline became effective in Fall 2010. Not only has course attempt behavior changed since the pace rule became effective in Fall 2011, but progress performance gradually has, as well.

Table 2

*Of the Credits Earned, Percentage Earned in Semester of Initial Registration*

<b>Department</b>	<b>FA 10</b>	<b>SP 11</b>	<b>FA 11</b>	<b>SP 12</b>	<b>FA 12</b>	<b>SP 13</b>	<b>FA 13</b>
Psychology	84.10	85.87	85.96	89.08	89.90	87.91	96.57
Human Science	65.12	80.00	79.41	86.49	78.95	96.77	92.11
Organizational Systems	77.42	80.95	84.75	98.18	79.66	92.50	97.62

While these figures demonstrate an overall increase in coursework completion efficiency that is consistent with the introduction of the pace requirement in Fall 2011, the general trend does not accurately describe student behavioral tendencies in all instances. Specifically, the changeover to a pace measure of progress at the case institution presented the opportunity to focus more precisely on its effect among students attempting to qualify for doctoral candidacy.

Prior to adopting the pace requirement, the case institution followed a maximum timeframe driven progress model which specified a fixed number of years of financial aid eligibility by degree level (4 years for M.A., 7 years for Ph.D.). Students were required to

complete at least six credits per semester until the coursework phase of their degrees was complete. Ph.D. students were relieved of the six credit/semester minimum upon entering the doctoral candidacy qualifying phase of their program. They were then free to progress at their leisure, provided they completed their degree prior to exhausting the maximum timeframe of seven total years of enrollment in the program. Effective Fall 2011, however, the four courses comprising the candidacy qualifying phase became subject to the pace measurement each semester. The affected courses are a pilot study (Research Practicum), a dissertation research methodology critique (Qualifying Essay 1), and two literature/content essays (Qualifying Essays 2 and 3).

Table 3

*Mean Days to Completion of Candidacy Qualifying Courses Registered in Academic Years Before and After Introduction of the Pace Requirement*

	<b>2006–2011</b>	<b>2011–2014</b>
Research Practicum	277 ( <i>n</i> = 180)	195 ( <i>n</i> = 126)
Qualifying Essay 1	214 ( <i>n</i> = 176)	173 ( <i>n</i> = 144)
Qualifying Essay 2	239 ( <i>n</i> = 239)	228 ( <i>n</i> = 138)
Qualifying Essay 3	194 ( <i>n</i> = 189)	235 ( <i>n</i> = 140)

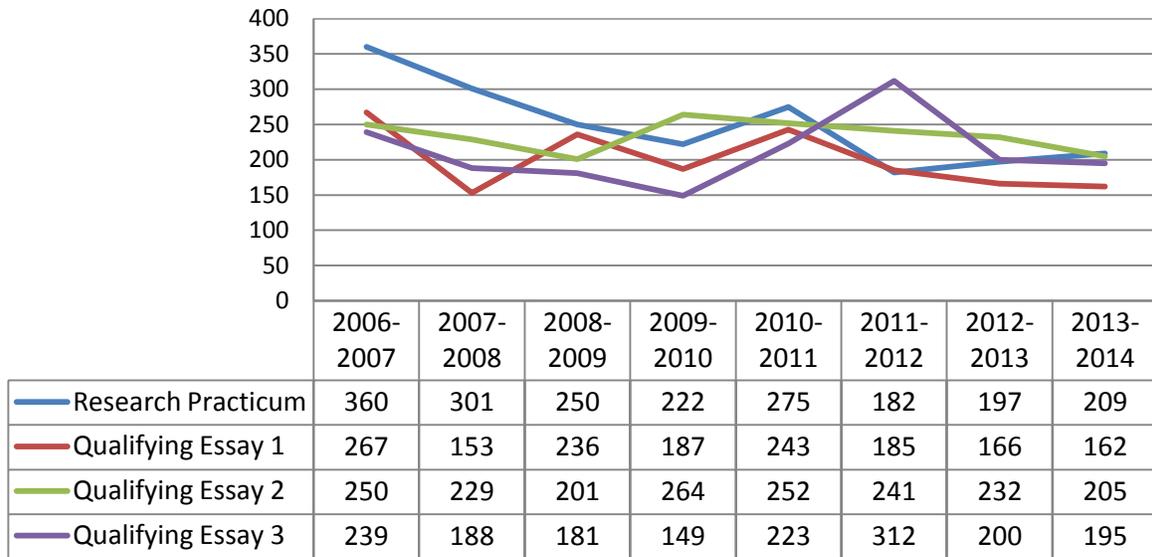
Table 3 presents the mean days to completion for each of these courses registered in the five academic years prior to the introduction of the pace rule in Fall 2011, and three academic years after. The reduction in days to completion for the Research Practicum and Qualifying Essay 1 is evident. Both dropped substantially since the pace rule was implemented. The reduction is much less pronounced for Qualifying Essay 2, however, and the mean days to completion for Qualifying Essay 3 actually increased by nearly six weeks. This increase conflicts

with the information in Table 2 that suggests an overall gain in course completion efficiency since the pace rule was implemented.

A more detailed examination of the mean days to completion reveals instances and trends in the data that are obscured by the overall figures. In Table 4, mean days to completion of the candidacy qualifying courses are mapped by the academic year in which the courses were initially registered. The mean days to completion for Qualifying Essay 3 during 2011–14, for example, is considerably skewed by the instance of 312 mean days ( $n = 46$ ) in academic year 2011–12, before dropping to 200 mean days ( $n = 56$ ) and 195 mean days ( $n = 38$ ) in 2012–13 and 2013–14, respectively. Most apparent in the charted data, however, is emerging uniformity in mean days to completion among the four candidacy qualifying courses after 2011. In the years preceding the introduction of the pace rule, there was considerable inconsistency in the mean days to completion between these courses. During the 2009–10 academic year, for example, Qualifying Essay 2 ( $n = 44$ ) exceeded Qualifying Essay 3 ( $n = 38$ ) by 115 mean days, despite their similarity in scope and content. Not only did the gap narrow between them after 2011 to a nominal amount by 2013–14, but there is a convergence of mean days to completion across all four of these candidacy qualifying courses.

Table 4

*Mean Days to Completion of Candidacy Qualifying Courses Registered by Academic Year*



There are strong indications in the data that suggest the changes in mean days to completion for these courses were influenced by changes in student registration behavior. While the overall mean days to completion for Qualifying Essay 3 increased from 194 ( $n = 189$ ) to 235 ( $n = 140$ ), for example, the standard deviation decreased from 210 days to 181 days. The phenomenon of days to completion condensing at higher mean values does not in and of itself suggest a change in course registration behavior. However, when taken with a comparison of the lower spectrum of days to completion over the two time periods, it does. During the three academic years prior to the introduction of the pace requirement (2008–11), 12 of 114 Qualifying Essay 3 courses (10.5%) were evaluated for completion in fewer than 10 days from the date of registration. By comparison, during the 3 years following the introduction of the pace rule (2011–14), only two (1.4%) were evaluated for completion in fewer than 10 days after registration ( $n = 140$ ). To the extent that it is not possible to complete a doctoral candidacy

qualifying course in fewer than 10 days, these instances suggest a more extensive incongruence between actual days to completion, and total duration of registration, prior to the introduction of the pace requirement.

Although the incongruence is most obvious in the Qualifying Essay 3 data, it is also apparent among the other three candidacy qualifying courses. In the three academic years preceding the introduction of the pace requirement (2008–11), there was a combined total of 24 instances (5.3%) of candidacy qualifying courses evaluated for completion in fewer than 10 days from the date of registration ( $n = 453$ ). In the three subsequent years (2011–14), only six of 548 total candidacy qualifying course completions (1.1%) were registered for fewer than 10 days. The lower spectrum of days to completion between the two time periods, in general, is similarly imbalanced. The change in registration behavior is consistent with the introduction of the pace rule, but also with the alteration of registration policy at the case institution specific to candidacy qualifying courses at the time the pace rule became effective. Prior to Fall 2011, students entering the doctoral candidacy qualifying phase were required to register the research practicum first, and were limited to registering only one qualifying essay course at a time until the research practicum was complete, after which point students were free to register any two qualifying essays simultaneously. The policy of limiting candidacy qualifying courses to two concurrent registrations was lifted beginning in Fall 2011 when progress through the phase became regulated by the pace requirement.

The 2008–14 data indicate a change in registration behavior and a deeper incongruence between candidacy qualifying course registration data and the actual mean days to completion prior to Fall 2011. To determine whether there was an appreciable change in actual speed of progression through these courses relative to the introduction of the pace requirement, total

length of time spent in the candidacy qualifying phase was collected.<sup>3</sup> Because the 2011–2014 data were unsettled at the time of data collection, it was not possible to compare mean speed of progression through the candidacy qualifying phase between the two time periods. However, omitting the Spring 2014 values from the post-Spring 2011 data enabled a comparison of the medians of the two time periods (before and after introduction of the pace requirement) as a proxy indicator of change of speed of progression.<sup>4</sup> Of students beginning the candidacy qualifying phase prior to the Fall 2011 semester, half completed in 495 days or fewer ( $n = 174$ ). Of students beginning the candidacy qualifying phase between Fall 2011 and Fall 2013, half completed in 504 days or fewer ( $n = 101$ ).

The marginal difference in the median figures between the two time periods suggests that it is unlikely that the pace requirement has appreciably altered student speed of progression through the doctoral candidacy qualifying phase. Yet, evidence indicates a trend toward uniformity in mean days to completion among the four courses since the pace requirement was introduced. From this information, it is possible to deduce that students have been registering and working through the candidacy qualifying courses more sequentially under the pace requirement, particularly since 2012. Conversely, the pre-Fall 2011 data indicated a stronger tendency for students to work on candidacy qualifying coursework concurrently during that timeframe. This is supported by evidence that students were more likely to work on their unregistered candidacy qualifying courses, as well as the greater mean days to completion for all but Qualifying Essay 3.

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<sup>3</sup> This duration was measured as the mean days elapsed between the date on which the first of the four courses was registered, and the date on which the last of them was evaluated for completion. Periods of student withdrawn status were subtracted from individual totals.

<sup>4</sup> Removal of the Spring 2014 data yields a post-Spring 2011 median that was settled, as over half of all students who began the qualifying phase between Fall 2011 and Fall 2013 had completed prior to the collection of data.

The obsolescence and removal of the limit on concurrent candidacy qualifying course registrations in Fall 2011 (when they became subject to pace measurement) presents a compelling anomaly in the data if considered apart from the pace requirement. Prior to Fall 2011, students were limited to registering two candidacy qualifying courses concurrently, but data indicate that they also worked on those they were restricted from registering. When the registration limit was lifted in Fall 2011 and students were free to register any number of them concurrently, the sharp increase in days to completion of Qualifying Essay 3 suggests they did so to some extent. However, after approximately one year, their academic effort began to synchronize with an emerging tendency of courses to be registered sequentially rather than concurrently. The shift toward sequential progression through the four candidacy qualifying courses defies the expectation that they would register and work concurrently on the courses when permitted to do so after the limit on concurrent registrations was lifted. This adaptive behavior is consistent with the alteration in course drop behavior in Table 1, and signals a change in academic behavioral efficiency that is a hallmark of the design of the pace requirement.

### **Progress Results of Pace Deficient Students**

The pace requirement is a rigid, consequential policy. Students progressing at a pace deficiency lose their federal financial aid eligibility and institutions can only disburse to them once again if they improve to the minimum standard of the policy. For students with no other means of financing their education, this would typically necessitate withdrawal. Although it was not within the scope of this study to conduct a comparative analysis of satisfactory academic progress data before and after the implementation of the pace requirement at the case institution, progress data after its introduction is offered here to further contextualize pace and motivation.

Between Fall 2011 and Fall 2013, a total of 97 students fell below pace for the first time. As the case institution calculated academic progress every disbursement/enrollment period, it is permitted under regulation to extend a onetime Warning status to such students and disburse aid to them in the following semester (Satisfactory Academic Progress, 2011). Of these 97 first time pace deficient students, none of whom were required to withdraw as a result of the deficiency, 87 remained enrolled. At the end of the subsequent semester, 57 of the 87 remained below the pace threshold again and lost their aid eligibility for that reason. 48 of these 57 remained enrolled in the following semester under a single probationary period afforded to them (Satisfactory Academic Progress, 2011). At the time these data were collected, at least 28 of them had achieved satisfactory progress. In total, of the 87 who remained enrolled after initially falling below the minimum pace threshold, 57 (65.5%) eventually completed the balance of deficient coursework required to resume eligibility for federal financial aid. Only nine of these 57 (15.8%) returned to a pace deficiency at any point after resuming good standing, and at least eight those (88.9%), at the time of data collection, had righted their progress.

There is no basis from which to assess these figures comparatively. However, what is clear without a comparative analysis is that the rate of persistence is tied to the rate of success under the pace requirement. At the time data were collected, the rate of persistence/success among the original 97 pace deficient students was 58.8%. If the 10 voluntary withdrawals are factored out of the Fall 2011-Spring 2012 persistence rate, the persistence/success rate is 65.5%. Although the figures on persistence/success rates with respect to voluntary attrition are not identifiable through the semesters most closely preceding the point of data collection, the earlier data indicated that students who remained enrolled after an initial pace deficiency succeeded in much greater numbers than those who did not succeed.

## **Student Motivation and Outcomes**

The relationship between student motivation level and academic outcomes in higher education is touched upon in the extent educational research, but is a central feature of the present study. Implicit in the potential of this connection is the assumption that the force of motivation will determine the performance that a student will exert and the level of success that will result. Person-centered expectancy motivation (Hiatt, 2015) is described as the product of the squares of the valence that a person associates with an outcome and his or her belief in ability to achieve the outcome. This model frames motivational force from the subjective experience of the individual, and allows understanding of motivational force to flow through experiential descriptions of desire and ability.

The seven students interviewed for this study were identified as performing on the margins of the minimum pace requirement at the case institution over the Fall 2013 and Spring 2014 semesters. By the pace measure of performance over those two semesters, they fall into three categories. Sandra and Joan<sup>5</sup> maintained pace performance just above the minimum standard over both semesters. David, Tracy, and Bill performed below standard in Fall 2013 but righted their progress by the end of Spring 2014. Kristen and Kelly performed below standard over both semesters. Six of the seven funded their enrollment with federal financial aid (David was fully funded by the VA), and all who performed deficiently received notice of the deficiency and its bearing on the case institution's ability to disburse financial aid.

Personal accounts of the motivational elements under Hiatt (2015) were explored in depth to assess the relationship between the antecedents of motivation and individual participant outcomes. For the purposes of this presentation, no attempt is made to quantify individual levels of motivation. Instead, a comparative approach is used to highlight, compare, and contrast

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<sup>5</sup> Pseudonyms used in place of all personal names.

participant accounts and individual outcomes. These data are framed across three precepts of the Hiatt model to assess the consistency of the accounts and outcomes in an educational context: (a) Progression and cessation are determined along lines of motivation, (b) Motivation to progress is fluid and dynamic, and (c) Motivational force is regulated internally.

### **Progression, Cessation, and Motivation**

Between the end of the Spring 2014 semester and the point when interviews were conducted, Kelly had voluntarily withdrawn. Shortly after the interviews were conducted, David also voluntarily withdrew. The remaining five students continued to progress in their degree programs. For comparison purposes, a review of progression and cessation with respect to person-centered expectancy motivation is limited to the two participants who performed above the pace requirement over both Fall 2013 and Spring 2014 (Sandra and Joan), and the two students who ceased their enrollment (Kelly and David).

In cases of student academic success, Hiatt (2015) suggests that the motivation driving that effort will be sourced by the student's belief in his or her ability to meet the challenge and rigor of higher education. Because no distinction is made between internal or external limiters of ability in person-centered expectancy motivation, belief in ability is determined by self-assessment of academic potential as well as the perception of environmental obstacles impeding progress. When the topic of ability was discussed in the interviews, all the participants cited environmental challenges. Kelly, however, was the only participant who came to believe herself potentially incapable of completing her program.

Sandra waited until her children were grown before undertaking her graduate education. She completed a master's degree prior to matriculating into a doctoral program at the case

institution. The challenges she faced were nonetheless external/logistical, as she struggled with the competing demands of working and going to school fulltime.

So I think through the first year and half, the first three semesters, very motivated, but I also worked fulltime. So like that that fourth or fifth semester, because I had tremendous work responsibilities (and I still do) I was feeling the pressure of being in school fulltime at that graduate level and then working 12-hour days. So even though my kids are all young adults and I didn't have that kind of home responsibilities, I did feel like my world was closing in because I was surrounded by my work world and school world and nothing else.

She also singled out lack of information and advising during the doctoral candidacy qualifying phase as a source of complication.

So then I hit another wall when I got into essays, and that's where that first semester when I was in essays, I felt like my world came crashing down because I didn't have the information that I needed in order to move forward in a way that I wanted to progress. As a matter of fact there was nothing, or no guidance in that regard and so I really felt—you know I had to reach out to other students to ask them what were the expectations and what was I supposed to be doing with these essays because my understanding of critique essays, I actually did it incorrectly the first semester so I had to start back over in that second semester with essays to do what I should have been doing that first semester and had to work really hard to catch up. And that was really scary for me, you know, how did this happen? So, that was a frustration. But I'm back at, you got this little bit of way to go left, and so I'm really, really excited and motivated. So it's been up and down, up and down.

Sandra associated these impediments to her ability with reduced motivation.

Q: If I heard you correctly, and correct me if I'm wrong, but I want to get a little more clarity on this piece: are you suggesting that difficult circumstances, in the context of a semester, impact your motivation?

A: Yeah, well, and the lack of information and guidance. Around that same time of essays I switched advisors for whatever reason. That wasn't my choice. I think when you feel like you're moving at a good pace and you have good progress things look good, but when there's a change, it could be any kind of change, I think you do experience a kind of a low, whether it's around having a different advisor, whether it's going into a different academic, for lack of a better word, a difference in course studies versus essays, and not really knowing what the expectations are around completing those essays or doing those essays, and the format around doing those essays, or whether it's pressure on—this semester I experienced the death of a family member and that's been really hard. Anyway, I do think you have your highs and your lows.

Q: Highs and lows with respect to your motivation level?

A: Yes, in regards to my motivation level, absolutely.

Joan described her ability from an external/logistical perspective, as well. In addition to the competing demands of work and school more recently in her program, Joan was engaged in humanitarian efforts in Africa for two years early in her program. When questioned about changes in her motivation level relative to environmental obstacles, she described motivational alteration as a function of shifting priorities (valence/desire).

The change in motivation, for me, was, again, not about interrupting my learning because learning continues, no matter what. But yes. And again, my work is about war and torture and trauma, et cetera, et cetera. So was I pulled sometimes to pay more attention to the real lives that were actually sitting in front of me rather than going back to the computer to read a chapter in Psych 101? Yes. But, see, all of that goes away once you get to essays and dissertation because it all becomes one, because I get to decide, finally, what I'm learning and what I'm studying. And if I'm sitting with a child who has just had their family massacred, well that's ok because the information that I get from that child is going to enrich my dissertation. It's going to enrich my course of study and it's going to enrich what we know about mental health and about humanity. It's not about going back and learning, ok so now I've got to close, I've got to shut the door on all of this really important, real life stuff and go back and learn about, you know, whatever. Freud, Jung, whatever. That I would get impatient with because I wanted to be applying the real life, real world stuff to what I was studying. And now I get to do that. Whereas, if I was taking a course that I just needed for a requirement, then that really didn't apply.

Joan was mostly consistent in her reframing questions of ability in terms of shifting desire. However, she did cite internal confidence as a potential issue upon beginning the doctoral candidacy qualifying phase.

Where my confidence would waver would be more like getting to—ok, but the coursework that I was presented with, a lot of it wasn't—a lot of it—I didn't question whether or not I would be able to complete it. Sometimes it was, do I have the stamina to complete it because sometimes I would find it not interesting. But no, where my confidence would begin to waver would be like where I'm reaching now in my coursework because I think once you reach the essays and the dissertation, that's when you really have to prove your stuff. That's when you really have to—that's when you're really working very closely with the professors that you've chosen. And you've chosen them because they're really good at what they do and they're experts in their field and because they're good mentors. And that's the place where I'm reaching now in my education, is where maybe some of that lack of confidence starts to come in. But not before. Not before. But now it does. Now it does.

Like Sandra and Joan, Kelly also cited logistical/external impediments that might impact motivation. However, she described these issues objectively and then turned deeply inward to the much more personal and imposing issue of broken self-confidence.

Q: Do you feel that your motivation level can vary from semester to semester, depending on circumstances?

A: Absolutely. I mean, because you have life happening. If we were studying in a vacuum, and we had all of the right pieces in place—we had the finances, we had the time, we had the focus, we had all these things—then yeah. In that laboratory it would be possible to finish school in the perfect amount of time, in the perfect way. But that's not the life we live. Many of us are working part time or full time. We have families. We have significant responsibilities that cause us to be pulled in many directions. And then we have our own demons that we're battling with. For me, it was getting my first piece of critical feedback. I'd never gotten academic feedback that way and it rocked me to my core. And try as my chair might, to explain that it was normal, I just—it felt like pure rejection. It just felt like an absolute indictment of my ability to do this work. It rocked me and it took me a while to recover. So my motivation was definitely affected by that feedback, but that feedback came to me towards the end of my coursework. So if you look at my progress from when I started, to when I got to the end of the coursework, I started off with a serious—like a rocket. I was just going. And then I got the feedback and it just started to take effect. And by the time I got to the end of the coursework it was like—uhh, it was painful. Getting the assignments done, it was painful writing.

The initial pangs of self-doubt that took root at the end of the coursework phase became crippling as Kelly progressed into the doctoral candidacy qualifying phase, when she came to believe herself incapable of writing at that level.

A: Before, I just assumed it was going to be an essay. Like, I think about it like a mini-thesis. That's the way I would approach it, like how I did my thesis for my master's program. And then when I got in it, I realized I didn't know what I was doing. I kept changing my topic and I would talk to my readers and they would try to help me structure it, but when I was home—so when I was at the RCs, I would try to meet them and structure it, but when I got home I just—I didn't get it. I couldn't get my arms around it so that I could see it. That was part of the challenge. The way I was used to writing, I would get a writing assignment and then I would literally just toss it around in my brain for a couple weeks, just back and forth, thinking about it, thinking about it. And as it took shape in my brain, by the time I sat down to type it, it would just flow out of me. And I realized when I got to the candidacy essays, I couldn't write like that anymore because it was just too much to hold, so I couldn't see it anymore. That just left me paralyzed, just unable to produce.

Q: Can you talk—maybe reflect on what it was that caused that paralysis? That’s a pretty strong word.

A: So if we go back to when I said that got my first piece of academic feedback—critical feedback—it was from Helen. One of the things that she said was, she was like, you have a really great lyrical voice, but you need to develop your academic writing style. And I’m like, ok, what does that mean? Because all I hear you saying is that my voice is not good enough. And so she tried to explain that it’s not that she was saying my voice wasn’t good enough, it was that I needed to develop a different style. But I could no longer hear her clarity or her explanation. What I—all I kept hearing her say was, you are not a good enough writer and you aren’t able—you really don’t belong here. And Helen never said any of those things, but that’s what I—that’s how I internalized it. And, so, because I was just used to holding the writing assignment in my head and forming these images—because I see in images and I write in images—and because I couldn’t do that, I couldn’t rely on them, I didn’t know what else to rely on. And every time I would go to write, it was—there was nothing there. There was nothing. There was just nothing there. I couldn’t see it. And I got all of these books to help me, to develop this academic writing that she was talking about, but none of them could help me translate the way I think into what I needed to be doing, to develop the way I was into the way I needed to be....The phrase that killed me at Saybrook all the time was, you need to go from being a student to a scholar. And so my question after that was always, well what does that look like? And no one can answer that. They would always say, it’s just the process that you stumble onto. It was frustrating for me because if I went from being someone who thought I was a really good writer, I had been—I have papers here from professors who have often complimented me on my writing style, and talked about the fact that I need to publish, to being told that I don’t have a strong academic voice, but I need to know how to become a scholar from being a learner. But no one could tell me how to do that. It just leaves you looking at a blank screen trying to figure out how in the hell you got into the program in the first place since no one else was able to figure this nonsense out, that you are an imposter. So that all led to this feeling of really just—just paralyzed. The crazy thing, though, Aaron, is that I was writing every day because I used to write for work. So it’s not like I wasn’t able to write. It was just when it came to school, for my own work, I couldn’t write.

While Kelly’s self-characterizations of paralyzed potential differed from the external challenges cited by Sandra and Joan, all three voiced clear and pronounced desire for their degree objective. In the Hiatt model, the valence a person might experience is not limited to intrinsic motivators. A person may develop an orientation for one outcome in order to avoid a different outcome. Sandra, for example, partially framed her desire for the degree as a lack of choice with respect to the alternative outcome of failing to attain.

Do I believe I'm going to complete? I have no choice at this point because... You know, I know someone who's actually kind of dropped out of the program and really has all kinds of, she's experiencing all kinds of...well her confidence level is lacking but that's not the reason why I want to complete. I started this journey because I knew it was something that early on that I wanted to do, now was the right time to do it, my kids are grown and I put a lot of focus and attention on completing this Ph.D. program. So I don't have a choice. At this point I'm far too gone to not complete it, and I think it would be just a heartache and a headache if I did not complete it at this point, or if I chose to go somewhere else....So at this point in time I'm highly motivated to complete and there's nothing stopping me except for myself.

Joan articulated the valence presented by degree attainment from the perspective of her personal and professional identity as a humanitarian serving refugee children in volatile regions of Africa.

A: I knew that I wanted to do a body of research. I knew that I wanted to really look into the health of refugee children and their mental health. And I knew that I was going to do that, no matter what. And so I decided why not get a Ph.D. in the process so that people will actually listen to the end result....Because I am very committed, whether I'm at Saybrook or not, about helping refugee kids, and helping kids heal after they've been exposed to an extreme trauma.

Q: Can you talk about what the basis of your commitment to refugee children is? Is it for career advancement? Is it personal fulfillment? If you could talk about what drives you relative to that particular goal.

A: Yeah. It's kind of beyond that. So it's been my niche, my calling, since like 1998, 1999. It was a bit of a curve for me because I always thought that I would be more involved with women and their children in developing countries, et cetera. But then in graduate school I was exposed more to the refugee trauma and that journey, and it just pulled everything together for me. The human rights element, the political element, and the fight element. And so the way that I look at mental health and healing is not just—and this might sound odd—but it's not just the individual, but it's actually helping to move humanity forward. And that is not just about the individual. It's about all of us. But when we heal the individual, we heal all the elements....

Q: How important is that commitment to you? What would it mean if you were to lose the ability to follow through with that commitment? How much of a place in your person does that commitment occupy?

A: It's my life. I mean, a life in balance. So, yes, I have my family, I have my friends, et cetera. But in terms of meaningful work, that is it for me. I'll share a quote with you so you can kind of understand where I'm coming from. I hope I'm not, kind of, making this way too broad for your assignment. But I did my undergrad at Antioch College, which is a very liberal college et cetera, et cetera. Horace Mann was the first president of that

college, and every student upon graduation recites the same quote that he recited at the very first graduation ceremony. And that is, “Be ashamed to die before you have won a victory for humankind.” And that is what drove me to Antioch. And that is what’s driven me since. We all have a responsibility to make sure that humanity moves forward. And for me, that’s kids. It’s kids and trauma. Kids in war. So it goes way beyond Saybrook. I would love to get a Saybrook degree, but whether or not I do, my work continues, and it’s just who I am.

While Kelly withdrew from the case institution after the Spring 2014 semester, the possibility of failing to earn the degree enhanced her personal convictions and sense of responsibility to earn the degree for her family, as well as for herself.

There was about two years while I was in the program—the last two years—where I really wrestled back and forth with just leaving, just walking away. The amount of pressure I felt was reason to just leave and not have to worry about this anymore. The academic confidence that I had lost, the peace of mind, my ability to articulate a thought—I mean, it just felt like, it impacted me in every single way, not being able to complete these essays. And so I just wanted to give up. But that was not possible for many reasons. One, I’m just not a quitter. I’ve never—academically speaking—I’ve never had this experience before, where I wasn’t able to achieve my dream in the timeframe that I needed to do it. And so this was a really new hurdle for me. But beyond my own personal desire to get the degree and just knowing professionally I wanted to have it—I’m carrying my family on my shoulders and I would be the first person—I was the first person in my family to get my undergrad. And then my siblings went and got their degrees right after me. Then I was the first one to get my master’s and my sister followed suit, and my other sister would eventually get hers. And I’m the first one to get this doctorate. There’s a sense of responsibility that I feel, not just to myself, but to my family. It would mean a lot for us, for me to have this, and the doors that it would open—not just for me, but for them, and their ability to get it now. They all say that they won’t—they’re done after the master’s, that they’re not going beyond that. But even if that’s the case, then *we* have this degree. And for my son. I need him to know that education is extremely important in his family. Wherever he decides to stop is where he decides to stop, but he can stop at the top if that’s where he wants to stop. It doesn’t have to be this elusive goal that’s unobtainable. He absolutely can have it. And so, for all those reasons, I just could not walk away. And I had to figure out how to get back to the table so that I could make this thing happen and so a lot of growth happened within those two years, but thankfully I’m in a different place.

Indeed, while Kelly was resigned to withdraw from the case institution after the Spring 2014 semester, the intensity of her convictions motivated her to ultimately resume her degree program at a different institution. At the time this study was completed, she was progressing toward her educational goal.

Apart from Kelly, David was the other interview participant who withdrew from the case institution. He did so during the course of the Fall 2014 semester, shortly after being interviewed for this study. Many of David's answers were lengthy, streaming descriptions of the challenges he faced in his enrollment at the case institution, with the VA, and in reconciling his career goals with creeping doubts about the academic legitimacy of his degree program. These accounts typically mixed or transposed valence issues and capability issues within a single train of reflection.

Q: Have you had any semesters in which you struggled to complete your coursework?

A: Yeah, all of them.

Q: Can you think about maybe if there's some kind of a theme, or a pattern to that difficulty. Like, what, in general, what is the situation or circumstances that cause the difficulty?

A: For me a lot of personal stuff caused it. I had a lot of deaths in my family recently. Like a suicide, and all this drama that came at the wrong time. So besides all my other crap I deal with, I had that stuff going on. But, if I really think about when I—I really want to tell you what I screwed up on, where I really made it more difficult. I think that not having contact with the professors has been really hard for me. But as far as new information on that, I might say—what made it more difficult for me—well the first semester the reason why it was so difficult, besides the VA crap, was that I didn't have—they didn't tell me they were going to pay me the amount of money they were going to pay me. They told me a lot less. So I had to go out and get three jobs. In my first semester, I just moved, and working three jobs, working all the time. I was trying to do my homework and it was just hard to go out and work a full day and come home and try to do my homework. It was just—just felt like too much on my plate, writing papers. I mean, just so much writing and almost like, some of the writing assignments—I can't think of a writing assignment I've had thus far where I enjoyed it. And I know that I'm going to school, and I don't necessarily need to enjoy what I'm doing, because I'm trying to learn, but it's kind of disheartening when you take all these classes and you—it seems like it's just repetitive. Like, I just used this book for this class, and now I'm using the same book for this class. It's like, oh, hold on a minute, this guy teaches here and we're reading his book. That's nice. Oh look, I've read three books by this guy. It seems like when I first got here, it seemed like there was some inbreeding of the knowledge that we were getting passed. Like we weren't necessarily getting a wide spectrum of knowledge. It seemed like it was all interconnected and a web from where we are at Saybrook. Either we're studying Bateman because he taught there or was a guest speaker sometime, you know, and now we're going to study Bateman because of that. What was the most difficult? I'd say me. I probably made it the most difficult because of just not really being

committed to online classes made it a lot harder. It just brought in other types problems. Like, really the biggest problem for me is not finding the time, but being able to focus when I sit down to write it. Sometimes, I'll try to figure out exactly what they're asking me, you know. And I'll look at the prompts and more often than not the prompts are misspelled or they left out certain information like [unintelligible] or something, the prompt is kind of screwed up. So for me that was really kind of disheartening. It's like is this just supposed to be—I've had this thought running through my head—is this just supposed to be like an easy school? Am I like the only one having a hard time with it because I'm having personal stuff going on and trying to adjust to this online thing. It's like, is that what's really going on? Or is this how it's always been. Because I used to get pissed and think what kind of teacher doesn't check their prompt to make sure it's not misspelled, you know. So, for me, the most difficult is adjusting, I think, is adjusting to the lifestyle of it. I think that's the biggest problem because, like I said, I had kickback from my friends. I got kickback from everybody. And all that crap going into somebody's head like me, personally who I am, it makes my brain go wild and then it makes it even harder to focus on what I'm supposed to do. So yeah, to sum it up, I think it would probably be the lifestyle change. Just change in this lifestyle where you're enrolled online student. You need to make sure you do this at this time of day, and you need to get a schedule. I have a hard time making a schedule. You know, pull an all-nighter and sleep all day and try to pull an all-nighter later.

The issues David presented here were raised repeatedly throughout the interview, with emphasis given alternately to logistical issues, enrollment challenges, and difficulties he faced with the VA (in particular, a sense of financial entrapment into a program that he began to question).

Sandra, Joan, Kelly, and David all confirmed that environmental challenge reduced their motivation to progress toward their academic objective. However, Kelly's and David's accounts of reduced motivation skewed sharply portentous. While Kelly cleared the coursework phase of her doctoral program in three and a half years, she was rendered "paralyzed" by a sense of incapability upon entering the candidacy qualifying phase, where she stalled for the next three and a half years before ultimately withdrawing. By contrast, David was not stalled and was in fact progressing satisfactorily when he withdrew during his third semester. Although he at no time cited broken academic potential as Kelly did, David's accounts nonetheless revealed the most fragile desire and certainly the most obstructed sense of ability among the seven participants. With respect to the valence and capability elements of person-centered expectancy

motivation theory (Hiatt, 2015), Kelly and David were relatively less motivated than Sandra and Joan, and the cessation of their enrollment is consistent with that finding.

### **Motivational Fluidity and Dynamism**

In Hiatt's person-centered expectancy model, the force of motivation "is a function of a person's unique and shifting attributions of desire and competence at a given time. This suggests that motivation is as dynamic as an individual's interpretation of his or her environment, including self" (Hiatt, 2015, p. 5). As illustrated in the cases of Kelly and David, relatively low motivation can lead to the cessation of enrollment. However, this is not invariably the outcome. All seven participants claimed some level of impediment to their ability that would reduce motivation at different times. Certainly, Kelly and David experienced sustained periods of eroded ability, but the force of motivation is not necessarily static. For students who experienced waxing levels of ability and/or desire after a period of suppressed motivation, cessation of enrollment is not assured.

This is exemplified in the case of Bill, who came under pace related suspension of financial aid eligibility at the end of the Fall 2013 semester after spending two years in the candidacy qualifying phase without completing any of the four qualifying courses. Bill submitted an appeal of his financial aid suspension, which was authorized. He went on to complete the qualifying phase by the end of the Spring 2014 semester and resumed good standing. Bill described the motivational issues as environmental frustration of his ability to immerse himself and progress academically. In addition, he was careful to point out that his desire to complete the degree was not at issue.

I was referring to a sense of frustration at not being able to give more of my attention, or fully give my attention, as I felt was needed in order to move more expeditiously through the program because other demands—mostly just meetings, other things that tended to fragment and break up my day, commuting, all those kinds of things. This program

requires a lot of concentration, kind of in-depth thinking. Immersion, I guess is the best word for that. And so the frustration that I felt was—there were periods where it was hard to get to the level of immersion in the academic work that would allow me to move more expeditiously through the program. I was feeling a little bit scattered and a little bit fragmented. I want to be clear: it was not frustration with the program or loss of motivation in terms of desire to get through the program. It was frustration with the circumstances that seemed to be preventing me from being more immersed in the program as I felt I needed to be.

All the interview participants cited motivation reduction in terms of the challenge of environmental imposition on ability. In his interview, Bill provided perhaps the most revealing experiential description of environmentally reduced ability to engage academically, and its attendant impact on motivation.

I think in terms of naming the affect or emotion there, for me it's more like frustration, but also referring to, you kind of relax, like—there's a certain amount of, I'll call it a creative tension, if not stress, that you have to maintain, a certain amount of energy you have to put into it in order to—it's like getting up in the morning. It's like sitting down at the computer, it's the energy of concentration. This is work, however you choose to describe it. It involves a certain amount of energy and you have to have a level of motivation to commit that energy. And so the feeling when you're not meeting your targets, or when you kind of have missed steps, or when things start feeling too fragmented, is you get a little bit disoriented, perhaps, in terms of your mental map of how am I going to get through this program at this point. And as a result, you are feeling like you have that much less internal resources to just sit down and focus on what you need to do. Distractions become even more formidable barriers. Other things that are demanding on your time that are much more immediate have to compete with the rather amorphous, kind of vague, out there sense that, gee, I should be making progress on my academic work. So it sets up a kind of this internal sense of competing demands where the less specific and the less focused the task at hand is with regard to the academic work, it's easy for that to take a back seat to all the other immediate demands.

Bill labored for two academic years in the doctoral candidacy phase before losing his financial aid eligibility for deficient pace. When faced with the prospect of losing eligibility to earn his degree objective, however, Bill claimed that he experienced an increase in his motivation. Indeed, after he was authorized a probationary semester in which to achieve satisfactory progress, Bill went on to complete the candidacy qualifying coursework in its entirety.

A: If anything, it felt to me like, ok now this is a *cause*. If anything, it increased my motivation to complete the program because for whatever reason, perhaps kind of the rebellious part of my nature, I wasn't going to let those circumstances defeat me. I was going to complete what I set out to do. And so I had an additional reason to get through. Not just interest, but I guess just fulfilling a promise to myself.

Q: I'm trying to think if there's any other question in there that I can ask to tease out maybe a little bit more information. In the context of the circumstances that you were just describing, it perhaps highlighted or accentuated in some way the end goal, perhaps?

A: It did. I think that's a very accurate statement. It accentuated the end goal.

That an individual may experience changing motivation is not particularly unusual.

However, the case of Bill demonstrates that motivation can decrease and increase with respect to a single objective over time and changing circumstances. The distinction is particularly relevant in higher education, in which the primary objective is static over the course of years required to achieve it. The Hiatt model suggests that this alteration in motivational force results from shifting desire and/or ability, and Bill exemplifies the tendency of motivation to increase when the valence of the goal is intensified at the prospect of its loss. (This phenomenon, incidentally, was also apparent in Kelly, who became reinforced in her convictions to earn the degree after she had withdrawn from her program.)

### **Internal Regulation of Motivation**

Central to the issue of motivation are individual differences that determine student response in a given situation. The pace requirement is a consequential policy that is intended to result in behavioral outcomes leading to student success. It compels students to progress according to a bright line standard in order to maintain financial aid eligibility. However, while the participants were uniformly aware of the consequence of progressing deficiently, they were nonetheless differentiated by the effect that the consequence had. In addition, the consequences associated with deficient progress were but a single component of a composition of antecedents of participant motivation.

The force of motivation “may be understood to be a strictly person-centered phenomenon. The basis of motivation resides exclusively in the perceptions of the individual” (Hiatt, 2015, p. 5). In the Hiatt model, the force of motivation is dependent upon the relative condition of the student. The antecedents of motivation are regulated internally by the student’s desire and perceived ability at a given time. Because an external requirement or potential consequence is not experienced universally, its impact on motivation varies by student.

For six of seven of the participants in this study, the most pressing consequence of failing to progress sufficiently was loss of federal financial aid eligibility, which posed the secondary and tertiary consequences of financial strain and inability to remain enrolled. In Bill’s case, this threat triggered an intensifying of his desire for degree attainment. After a loss of aid eligibility and authorization of a one-time probationary period, he regrouped, refocused, and completed the candidacy qualifying phase one semester after drifting for four.

Similarly, Kelly also experienced a renewal of conviction, but this was preceded by her voluntary withdrawal from the program. The withdrawal was consequent to a period of personal struggle during which she had determined herself incapable of writing at the doctoral candidacy qualifying level. Her course of action was consistent with Hiatt (2015), who suggested that “if in the course of some endeavor, a person comes to believe him or herself incapable of the endeavor, a person will cease the endeavor” (Hiatt, 2015, p. 4).

At this time this study was completed, David had not responded to the researcher’s attempts to gather additional information relative to his withdrawal. However, because he was under no threat of loss of financial aid at the time he withdrew (both because he was progressing satisfactorily and was funded by the VA), it is unlikely that consequence had any bearing on his decision. Certainly he was largely unconcerned with the case institution’s policy consequences

of deficient progress. However, his detachment also extended to the good news he learned during the interview that his pace was a robust 83%, which had no apparent positive impact on his perceived capability.

A: I mean, hearing you say it now, it has no effect on me. It doesn't make me feel good, you know? It doesn't make me feel bad or nothing like that. It's just—it's nothing. It's neutral, you know? So, my confidence is low because I know how hard it's been up to this point. And I know that it's just going to get harder.

Q: If I told you that your pace were not 83%, if I told you that your pace were 68%, 1% more than 67%—if you were that close to the line, would that impact your motivation to complete the program or to complete your coursework?

A: No, because it's not really the threat of the SAP that bothers me at all, to tell you the truth. It's more the threat of me being overcome to the point where I gotta stop and I just can't do it anymore, you know? But the SAP—yeah, no. Hearing that I was below, it doesn't really have any effect for me because I look at this and I think it's bureaucracy. It's just something else bureaucratic, you know what I mean?

While Hiatt (2015) suggests a relationship between David's relative motivation and his withdrawal, the internal regulation of his reduced motivation was apparently unrelated to the external factors that might otherwise enhance or diminish his motivation.

David was sharply contrasted by Tracy, who was motivated to address her progress issues even prior to receiving notice of progress deficiency and suspension of financial aid eligibility at the end of Fall 2013. Like Bill, Tracy's progress stalled in the doctoral candidacy qualifying phase. However, before the consequence of loss of financial aid eligibility was even determined, Tracy traveled to a weekend-long, intensive writing workshop to proactively address the writing difficulties that hampered her progress. At the end of Fall 2013, Tracy lost her aid eligibility and was authorized a one-time probationary period for Spring 2014. The probation was contingent on attempting and completing nine credits during Spring 2014, but Tracy completed the entire candidacy qualifying phase and one additional course, a total of 15 credits.

Among the interview participants, Tracy exhibited the most intractable feelings of desire and capability. Like David, Tracy was motivated independently of the policy consequences of deficient progress. However, where David's motivation flagged despite making sufficient progress, Tracy's motivation prevailed despite making deficient progress. As in the case of Sandra, failure avoidance was a major component of Tracy's motivation.

Q: Would you say you're in any way motivated to avoid the alternative, of unfulfilled self-fulfillment?

A: So am I motivated to avoid not being fulfilled? Is that what you're asking me?

Q: Exactly.

A: Yes I am. You know what, I—when you talk about failure—you mentioned failure—for me, I think failure is not accomplishing, is setting out to say, I'm going to do X, Y, and Z, and you never do anything about it. Nothing beats a failure but to try, right? In my mind. And when you begin to try, you do, I believe. When someone really genuinely puts their effort forward and seeks to get there, they're able to because they begin to seek the guidance to move in that direction and they do the things that it takes to get there if it's really that important to you. And so, I don't always know if you necessarily have to define failure for yourself, but I don't want to fail at getting to my goals. Probably that's what has kept me, as it relates to my program. It's not pace or requirements. I set out to do this. I've always wanted to do this. I'm in the program. I did the legwork to get there. I need to stay there and get done, and get completed because I would be a failure for not completing it because I have the ability to do so. And that probably is my greatest fear, is not doing what I say I'm going to do.

### **Summary**

The 2011 amendments to the satisfactory academic progress regulations were intended to contribute to student understanding of their institution's academic progress expectations and increase the likelihood of their success (Program Integrity Issues, 2010). Although the pace requirement is perhaps the most prominent and distinctive new feature in the amendments, there is little evidence that its application in the case institution enhanced student understanding of the institution's progress requirements. For this reason, it is not possible to discern a relationship

between enhanced student understanding of academic progress expectations, and changes in course registration or completion tendencies.

Data nonetheless indicate a change in registration and completion tendencies relative to the introduction of the pace requirement. Course drop behavior resulted in a rebalancing of credits counted as attempted in the pace calculation, and there were measurable gains in course completion efficiency. These effects were examined more closely within the doctoral candidacy qualifying phase, four courses that were not regularly monitored for progress prior to the implementation of the pace requirement. Despite the de-restriction of concurrent registration of these courses when they became subject to pace measurement, there was an observed reduction of these courses being worked on concurrently. Instead, there was a shift toward more sequential registration and progression through these courses after they became subject to pace measurement. No appreciable change in speed through the doctoral candidacy qualifying phase is evident.

Among the interview participants, progression or cessation of enrollment was consistent with relative student motivation level. The tendency to successfully progress varied according to the student's attributions of desire and ability at a given time. These motivational elements responded to both internal and external factors, including the threat that losing financial aid posed to the participants' educational objective. However, the response was not universal and depends instead on the condition and motivational predisposition of the student.

## CHAPTER 5

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The amendments to the satisfactory academic progress legislation were “designed to implement a more structured, comprehensive, and consistent approach to the development and implementation of institutional satisfactory progress policies” (Program Integrity Issues, 2010, p. 34821) to enhance student understanding of progress expectations. “Having a clear understanding of an institution’s satisfactory progress policy will help students understand the institution’s academic expectations and will increase the likelihood of their academic success” (Program Integrity Issues, 2010, pp. 34821–34822). The changes in course registration patterns and completion efficiency observed at the case institution are consistent with the stated purpose of the legislation. However, given the weak understanding of the institution’s progress requirements demonstrated by the interview participants, it is not possible to conclude that those changes are the result of enhanced student understanding of academic progress expectations. Nonetheless, the increase in courses dropped before the self-drop deadline beginning in Fall 2011 (when the pace requirement was implemented) signals the possibility of increased student awareness of the significance of that deadline in the measuring of academic progress.

The case institution’s academic progress policy is included in its annual catalog with other relevant academic policies. It does not systematically broadcast the progress policy by other means. However, there is little indication that attempting to raise the policy’s profile would result in a better informed and higher performing student population. Among the seven interview participants, six had received direct, standardized notice of pace deficiency (which included a description of the requirement itself), yet only two were able to reasonably articulate the requirement. Five of these six had received the notice one semester prior to their interviews. The

only participant who was completely unaware of the pace requirement was the only one who had never crossed below the minimum progress standard and therefore never received a notice of deficiency.

Despite their generally weak understanding of the progress requirements, the interview participants were almost uniformly aware that failure to maintain satisfactory progress would result in the loss of financial aid eligibility and, ultimately, dismissal. To the extent that interview participants may be representative of the population of students on the margins of progressing satisfactorily at the case institution, the consequences of deficient progress are well understood. However, awareness of the consequences was also shared by the lone participant who had always performed satisfactorily and was completely oblivious of the pace requirement, as she had witnessed a friend lose her financial aid eligibility for deficient progress.

While it is therefore unlikely that the changes in course registration and completion tendencies resulted from enhanced student understanding of the case institution's academic progress requirements, it is quite plausible that they were influenced by student understanding of the consequences of deficient progress (and, perhaps more to the point, that those consequences would in fact be administered). Certainly the overall gains in course completion efficiency reduce the likelihood of loss of financial aid, a consequence which is resolute by federal mandate and is no longer at the discretion of the institution.

As student success is the stated intent of the academic progress amendments, the ultimate gauge of their effectiveness will be increased rates of degree attainment. Because of the typical length of graduate education and the relative newness of the policy, it is not yet possible to meaningfully determine whether degree attainment rates at the case institution have changed since the pace measure of progress became required in Fall 2011. However, because the changes

observed in registration patterns and gains in course completion efficiency are the result of student intentional behavior, it is possible to rationalize motivation as a proxy for eventual success. Under the pace requirement, eligibility for federal student aid depends on successful academic progression. Indeed, the data indicate behavior trends that tend to support continued financial aid eligibility.

While this study was focused on the relationship between satisfactory academic progress requirements and student motivation, the consequences posed by deficient progress are by no means the only triggers of student motivated behavior. The interaction of individual desire and capability determines amplitude of motivation with respect to a given outcome (Hiatt, 2015). However, as demonstrated among the interview participants, these conditions do not function universally with respect to a static, external consequence. The threat posed by loss of financial aid to a student's educational objective certainly might increase motivation by intensifying feelings of desire for that objective or the desire to avoid failure, but only to the extent that a student is motivationally predisposed to that response.

Whether a student succeeds because of the consequences posed by deficient progress, despite those consequences, or if he or she ceases enrollment due to the loss (or threat of loss) of financial aid eligibility, the pace requirement is definitive and resolute in the outcomes it binds to a student's rate of progress. As part of satisfactory academic progress amendments intended to increase the likelihood of student success (Program Integrity Issues, 2010), the pace requirement is a consequential policy that compels student progress for continued funding. While the results here indicate that student outcomes are consistent with relative motivation under Hiatt (2015), the clarity of the pace requirement or its consequences do not demonstrably contribute to that motivation. There is some indication that the consequences of the pace requirement might

enhance or reinforce the existing antecedents of a student's motivation, but there is little evidence among the interview participants that the pace requirement contributes to success where it otherwise might not occur. In this sense, the pace requirement does not increase the likelihood of student success so much as it decreases the likelihood that students will remain financially enabled to persist in the endeavor of deficient progress.

### **Recommendations for Future Research**

This study suggests several avenues for future research. First, because the results presented in this study indicate a shift in registration and completion patterns at the case institution relative to the introduction of the pace requirement, the potential viability of future similar studies is supported. Such studies might include comparative analyses across institutions types or levels to determine patterns or concentrations of the impact of the policy. This could prove useful in assessing outcomes among nontraditional student populations and/or nontraditional institutions.

Second, as the progress measurement and financial aid eligibility relationship exists at the institution level (not at the student level across all institutions he or she might attend), there is an apparent blind spot in the progress amendments relative to students who fail to progress at multiple schools while incurring as much debt as they might have at a single institution. Furthermore, institutions are required to include transfer credit in their own pace calculations (Satisfactory Academic Progress, 2011). This practice gives an artificial pace buffer to students, allowing otherwise deficient progress to remain funded until the student has mathematically exhausted their transfer credit allotment. This could significantly compound the problem of debt overburden among students who are the least likely to succeed. Additional research should determine the extent to which this occurs.

This study was conducted just three years after introduction of the pace requirement at the case institution. While motivation appears to be a promising metric from which to gauge the likelihood of student success, the truest indicator of that success is degree attainment. In coming years, researchers should begin sampling these rates across institutions to determine, as early as possible, whether degree attainment is impacted under the program integrity legislation.

### **Recommendations to Practice**

The first line of responsibility for student success rests with the student. Institutions, however, can significantly contribute and assist in the process of successful degree attainment in a number of ways. Following Allen (1999) and de Valero (2001), this study solidified the role of motivation in student success. Regulating more purposefully for this on the front end of a student's enrollment will ensure an increased likelihood of degree attainment. Accordingly, admissions departments should make every reasonable effort to determine the stability of applicants' motivational orientation and amplitude with respect to the degree for which they apply.

Allen (1999) suggested that motivation and academic achievement may perpetuate one another. Students who are motivated to succeed, and are met with some measure of success, may be reinforced in their motivations. This is consistent with Hiatt (2015), which indicates that successful progress may enhance a student's sense of ability (and, thus, motivation) to continue to succeed. Accordingly, academic curricula should be designed to afford students the optimal chance of enjoying success at the outset of their enrollment. This early success will yield the best conditions for continued success and progression toward attainment.

Lastly, as the 2011 academic progress legislation amendments remove institutional judgment from determining student financial aid eligibility, institutions are relieved of the

complex and administratively burdensome process of making and implementing those determinations. The resources now freed from the back end of deficient student progress should be directed to proactive efforts to identify and constructively engage with students when they first begin to falter in their progress.

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APPENDIX A  
INSTITUTIONAL REVIEW BOARD APPROVAL  
SAYBROOK UNIVERSITY



September 17, 2014

Mr. Aaron Hiatt

c/o Saybrook University  
475 14th Street – 9th Floor  
Oakland, California 94612-1943

Re: SIRB Request to Solicit (14-F-AHiatt)

Dear Mr. Hiatt,

I have reviewed the IRB Application materials related to your proposed research at the University of San Francisco, and I am pleased to inform you that the Saybrook Institutional Review Board can offer you approval to solicit from current Saybrook students and graduates to explore the possibility that the pace requirement of an institution's satisfactory academic progress (SAP) policy affects student motivation, course registration behavior, and course completion rates.

Please note that this approval is effective for a one-year period only from the date of this communication (i.e., clearance effective until September 17, 2015). If more time is required, request an extension before the period expires.

Should you wish to make modifications that could conceivably have an impact on human participants, you are required to submit those modifications to the Saybrook IRB for review. At the completion of your study, please email SIRB a copy of any type of Summary Report you might send to your participants, as this needs to be included in your official SIRB file. Usually a Summary Report is a one- or two-page summary of your findings, but feel free to write up your findings for the participants in any way that seems appropriate to your study. The Saybrook IRB will not evaluate your findings; however, it is a federal requirement that we have a record of your project completion.

If you have any questions, do not hesitate to contact me. Best of success with your research.

Sincerely,

A handwritten signature in cursive script that reads "M. Willson Williams".

M. Willson Williams, Ph.D., Director of IRB  
[phone]  
[\[email\]](#)  
cc: Dr. Daniel Sewell; SIRB file

APPENDIX B  
INSTITUTIONAL REVIEW BOARD EXEMPTION  
UNIVERSITY OF SAN FRANCISCO (USF)

On Tue, Sep 16, 2014 at 8:06 AM, Terence Patterson <[noreply@axiommentor.com](mailto:noreply@axiommentor.com)> wrote:

*Protocol Exemption Notification*

To: Aaron Hiatt  
From: Terence Patterson, IRB Chair  
Subject: Protocol #346  
Date: 09/16/2014

The Institutional Review Board for the Protection of Human Subjects (IRBPHS) at the University of San Francisco (USF) has reviewed your request for human subjects approval regarding your study.

Your project (IRB Protocol #346) with the title **Interviews and records review at a single graduate institution to determine possible satisfactory progress policy impact on student motivation** has been approved by the University of San Francisco IRBPHS as **Exempt** according to 45CFR46.101(b). Your application for exemption has been verified because your project involves minimal risk to subjects as reviewed by the IRB on 09/16/2014.

Please note that changes to your protocol may affect its exempt status. Please submit a modification application within ten working days, indicating any changes to your research. Please include the Protocol number assigned to your application in your correspondence.

On behalf of the IRBPHS committee, I wish you much success in your endeavors.

Sincerely,

Terence Patterson,  
Chair, Institutional Review Board for the Protection of Human Subjects  
IRBPHS - Univeristy of San Francisco  
[IRBPHS@usfca.edu](mailto:IRBPHS@usfca.edu)