An Analysis of Executive Order 1110 and its Effects on Minority Students Inside the California State University System

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As the largest system of public higher education in the country, the California State University (CSU) system has for decades served as a testing ground for some of the most relevant developments in higher educational policy. Recent policy developments within the system however has led to a multitude of speculations surrounding its actual objectives. The purpose of this study is to examine the question of to what extent the implementation of Executive Order 1110 impacted the student success levels of Underrepresented Minorities (URM) within the CSU system. In order to approach this question, the different factors conforming to the concept of student success in higher education is first analyzed and defined. Following the establishment of this central concept, this study gains a more meticulous and precise understanding on the effects of this policy, by conducting a sample survey at one of the largest and most diverse campuses within the CSU system. Prima facie results from this data-based analyses indicate a various effects on the levels of college success among URM students. Effects that according to the same data, can potentially expand as more students from these specified groups continue to experience the effects of this policy.

Recent developments in the discipline of remedial policy within the California State University system has become one of the major points of discussion for experts and policy analysts (Howell, 2011). On the general scope of examination, the system has been a leader in the implementation of new policies related to financial support and ethnic integration of post-secondary students (Public Policy Institute of California, 2017). Nonetheless, on aspects of the remedial education CSU system had not implemented new policies since 1998 (Howell, 2011). The system began to demonstrate a greater need for a policy reformation, as the overall composition of its student population continued to fluctuate (Johnson & Sengupta, 2009). The development and introduction of Executive Order 1110, in August of 2017 was the apparent answer to a multitude of issues the State had been developing for decades (Exec. Order No. 1110, 2017). The introduction of this policy dismantled the unified system of remedial education for incoming first-time college students in the California State University system (Exec. Order No. 1110, 2017). By the time of its implementation, data reflected that 58% of the new incoming college students in the CSU system were required to participate in remedial courses (Howell, 2011). This was an alarming jump from that of the national average of 12.8% amongst public 4-year institutions at the time (U.S Dept. of Ed., 2019).

The increasing dependency on a system-wide remedial program had major de facto effects on pivotal measurements for student success (Rodriguez, Jackson & Cuellar-Mejia, 2017). Current literature identifies Academic Self Efficacy as the strongest indicator for the success of students in college (Brown-Welty, Tracz & Voung, 2010). Academic Self Efficacy is often defined as the student's degree of confidence in performing various college related duties to produce a desired academic outcome (Brown-Welty, Tracz & Voung, 2010). Although the majority of the literature identifies this variable as the major component and predictor of college success amongst students, no clear study has ever measuredthe levels of Academic Self Efficacy amongst students placed in remedial education within the CSU system (Hanlon & Schneider, 1999). This gap in the literature is in fact the impetus reasoning behind this study. By analyzing if remedial programs had in fact an

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effect in the development of Academic Self Efficacy, it will be possible to determine if the eradication of remedial education was the most ideal policy development to support student success.

REVIEW OF LITERATURE

Remedial Programs in the United States

Alternative systems of academic support have been a historical approach to the continuously changing demands for new pedagogical and policy structures of higher education in the nation. Data regarding this trend demonstrates the popularity that similar measures have amongst various higher education systems in the country. The US Department of Education calculates that 92% of all post-secondary institutions in the nation offer some type of remedial education system (U.S Dept. of Ed., 2019). Amongst these various systems, their general populations report to be largely conformed by first-time college freshman entering 4-year post-secondary institutions (U.S Dept. of Ed., 2019). An even more alarming factor is that the overwhelming majority of these remedial programs are composed of Underrepresented Minorities (Attawell, Domina, Lavin & Levey, 2006). These remedial programs are primarily defined as additional academic support systems, designed to fulfill the learning gaps that exist amongst different groups of students prior to entering college (Legislative Analyst's Office, 2017). These differences in college-ready levels have been found to be directly correlated to a multitude of socioeconomic and demographic factors (Burdman, 2015). The influence that these socioeconomic and demographic aspects have on the learning and college readiness levels of students, are more evident in larger concentrations of similar student populations.

Even when the majority of these remedial programs are trying to reduce the gaps of academic inequality, a clear precedent against remedial education has been established in the United States during the past decade. According to the most recent accessible data, around 41% of all State legislatures and governing boards have in some way passed legislation suspending or completely dismantling the remedial programs in their post-secondary institutions (Oseguera, Solórzano & Villalpando, 2005). Many other major States, with concurrent characteristics, have also taken steps toward the gradual or immediate reduction of their remedial education programs. As early as 1996, States such as Massachusetts and New York had passed legislation either reducing or completely dismantling their internal remedial programs. States like Massachusetts, adopted a gradual elimination of its remedial education program. In the initial years of these efforts, a 52% annual reduction of entering freshmen at public colleges who needed remediation was reported (Bastedo & Gumport, 2003). The gradual yet drastic reduction in classical academic support system appeared to have no effect in the reduction of minority students being placed in remedial education. In fact, during this transition the average national number of minority students being placed in similar programs slightly increased (National Center for Education Statistics, 2018). Similar patterns were also found in the public institutions of higher education from leading States. New York reported that after their initial efforts for transition, preliminary data showed no immediate reduction in the enrollment of minority students in these programs (Bastedo & Gumport, 2003). A similar behavior was also reported in the State ofMassachusetts.

Although enrollment rates in remedial education programs are in fact a pivotal factor of this discussion. One must also analyze factors such as retention and completion rates, in order to determine early negative signs of similar policies. Taking a look at the national averages, these levels appeared to have experienced a slight decrease during this period. Massachusetts reported a graduation gap of 11% amongst its minority student population (National Center for Education Statistics, 2018). Which compared to that of the national 12% average, it appeared to be consistent but still affecting a great majority of its in-state minority student population (Cook & Jackson, 2016). These same national rates were also reflected in the levels of baccalaureate degree acquisition amongst some minority groups nationwide. Which went as low as just 8.2% for Hispanics American, 10.4% for African American, and 15.2% for the general nationwide college population (Oseguera, Solórzano & Villalpando, 2005). As stated previously the levels of graduation gaps are a crucial point of discussion, when observing the impact that the elimination of remedial programs could have in some of the parameters utilized to measure student success.

Remedial Education in California

Systems of academic support have been ingrained in the higher education policy of California from its early beginnings. As part of the 1960 Donahoe Higher Education Act, which established and refined the systems of public post-secondary institutions in the State. Remedial education programs were instituted as a homogenous and ubiquitous component in all of the three major systems of public higher education in the State, this as part of the Master Plan for Higher Education established by the same act (Stein, 2018). Not only that, through this act the California State University (CSU) and the California Community College(CCC) as whole were established as support institutions for marginalized communities and groups within the State (Stein, 2018). During the half century following the establishment of these state-wide systems, no other major policy regarding remedial education programs was introduced.

Sixty years after the implementation of this act, data began to demonstrate a stagnation in the levels of graduation ranging at an average of 8.9% for minority groups within the CSU system (CSU Institutional Research and Analysis, 2019). This trend continued to grow until it

was momentarily interrupted by Executive Order 665 at the beginning of 1998. At the time, remedial education levels for minority groups had reached as high as 74% for African Americanreshmen and 65% for Latino freshmen (Roach, 2000). Executive Order 665 introduced revolutionary pieces of legislation that attempted to gradually reduce the high levels of remedial placement amongst these groups. The implementation of E.O 665 increased completion rates of remedial courses 39% after one year of it being established. During this same year the percentage of incoming CSU freshmen placed in remedial courses fell 6%. E.O 665 was able to accomplish this by introducing a collaborative academic preparation initiative. Which sought to increase support in the State's K-12 system by directing $9 million in direct state funding (Roach, 2000). This was a clear effort to shift the responsibilities of building college readiness from the CCC and CSU remedial curriculum into stronger pedagogical approaches in the K-12 system.

Public postsecondary institutions continue to follow the parameters established by Executive Order 665, until the second major reformation of remedial education came when Executive Order 1048 was introduced. By the time this new policy was introduced, research continued to demonstrate a disproportionate share of remedial placing for minority students inside the CSU system (Grodsky, Howell & Kurlaender, 2010). Executive Order 1048 was introduced as an additional effort to reduce remediation levels at four year post-secondary institutions, and instead continue to push these sort of systems into pre-college programs and K-12 college-bound curriculum (Grodsky, Howell & Kurlaender, 2010). This new policy introduced the Early Assessment Program, which was designed to provide parents and high school instructors with appropriate information on how to prepare their students for college. It also introduced additional preparatory coursework requirements for high school students in order to ensure higher percentages of college success at any CSU (Grodsky, Howell & Kurlaender, 2010). Finally, this new policy also introduced new admission guidelines for all CSU institutions. Allowing students to avoid remediations placement through other paths such as advanced coursework and admission tests (2010).

Although the Early Assessment Program was introduced with high expectations, it failed to provide consistent results. Although the program was capable of reducing the probability of remediation at a post secondary institution by 6.1% (Grodsky, Howell & Kurlaender, 2010). The program also reported consistent levels of incompletion amongst nearly half of the participant students, with an average of 44.5% (Grodsky, Howell & Kurlaender, 2010). In addition to this, research showed statistically significant effects of the Early Assessment Program amongst primarily minority student groups. Across academic disc plines, those students that identified as Non-White Hispanics had a 9.4% greater possibility to be place in these programs. This number was ever greater amongst African American students, who reported an 18.5% greater probability to be placed in similar programs when compared to White students (Grodsky, Howell & Kurlaender, 2010). Research at this point in the development process continued to express a need for reformation in regards to the remedial structure of the State.

Executive Order 1110

The introduction of Executive Order 1110 in August of 2017, represented the most recent and paramount policy in regard to remediation education inside both; the State of California and the California State University System. The recently adopted policy introduced a multitude of modifications to the curriculum, new pedagogical approaches and academic support mechanisms for all 23 campuses inside the system. This Executive Order surpassed a number of the previous guidelines and standards established by E.O 1048 and E.O 665 (Exec. Order No. 1110, 2017). The principal objective of this order was to eliminate all use of remedial programs inside the CSU and CCC systems, modify the skills assessments procedures and placement recommendations, and upgrade the Early Start Program established under Executive Order 1048 (Exec. Order No. 1110, 2017). These three major modifications encompassed deeper levels of policy and structural shifting.

Under the new policy all non-credit remedial across both quantitative reasoning (QR) and written communication (WC) courses were eliminated. Remedial courses would then be substituted by two other major systems: co-requisites and stretch models (Bracco et el., 2019). The co-requisites model was an already popular behavior amongst some institutions. At the time of its implementation at least 9 of the 23 campuses within the CSU system had already implemented a similar method of academic support (Bracco et el., 2019). This symbiotic system of support was divided in 3 major pedagogical objectives. The first one was to provide direct support in the skills necessary for a first time college student to succeed. Second and third were designed to provide direct support on core major courses (Bracco et el., 2019). These three major approaches conformed to the first model designed to fulfill the academic support gap left behind.

Stretch course models were another approach to substitute non-credit remedial courses. Although it was officially established as an additional support system for students under Executive Order 1110. This model was widely used by CSU campuses attempting to transition away from developmental instruction. Especially amongst Writing Communication and English courses (Bracco et el., 2019). Recent survey data reported that a great majority of CSU faculty claimed to be in support of this and viewed stretch models as an effective approach to student's learning experience. This approach contained slower teaching methods, leading to cumulative learning over an extension of two or three semesters (Bracco et el., 2019). On the opposite side of the spectrum, Executive Order 1110 also mandated

that the major objective of quantitative reasoning (QR) courses was to directly prepare students for upper division quantitative reasoning courses (Bracco et el., 2019). Both of these models were introduced by E.O 1110 as an effort to compensate for the academic support after the elimination of remedial education.

In addition to eliminating all remedial courses, the executive order also mandated the Admission Advisory Committee to reform all placement policies in the CSU system. This led to a multitude of structural transitions, and more noticeable the immediate discontinuation of the English Placement Test (EPT) and the Entry-Level Mathematics (ELM) exam (Exec. Order No. 1110, 2017). These tests were utilized to determine the college ready levels of incoming students, and determine if there was a need for remediation courses (Bracco et el., 2019; Exec. Order No. 1110, 2017). As a compensation to the removal of these exams, the CSU system instead began to use other forms of measures (Bracco et el., 2019). These new measurements were a combination of assessments that demonstrates the students college readiness for a successful completion of basic QR and WC courses. Such measures include high school course grades, Grade Point Average, Advanced Placement scores, ACT scores, SAT scores and Early Assessment Program scores (Exec. Order No. 1110, 2017). With this holistic approach the order was attempting to provide a more accurate description of the individual standing of incoming freshmen. In addition to this, the new policy maintained the usage of the Directed Self-Placement system (Bracco et el., 2019). In which students have the capability of deciding which stretch
course to take. Recent survey data on nine CSU campuses have demonstrated mixed opinion amongst professional faculty and staff who disagree in the true efficiency of the DSP and the multi-approach system (Bracco et el., 2019). Further data gathering and analysis is pivotal in order to acquire a more meticulous understanding of its effects.

Defining College Success

As a complex term, college success is often defined through a multitude of dimensions and disciplinary perspectives. At the level of the CSU system, this concept has been represented through meticulous numerical advancements in two major components: graduation rates and course performance (Kahn, 2018). Although this has been the case at the system-wide level, a majority of literature has identified Academic Self Efficacy and Social Cognitive Skills as the major components when defining college success (Brown-Welty, Tracz & Voung, 2010). Academic self efficacy is often defined as the student's degree of confidence in performing various college related duties to produce a desired outcome. Similar research identifies that the use of components such as Grade Point Average (GPA), and Examinations as an isolated numerical tool of measure for student success often tends to inaccurate and inefficient results (Brown-Welty, Tracz & Voung, 2010). Proper mechanisms of measurement are essential for monitoring the success and academic development of students.

Abundant research has determined that Academic Self Efficacy and Social Cognitive Skills are the best predictors of college success, since they report a direct impact in all other normative factors used by state level systems to measure student success, such as GPA and retention rates (Gore, 2006). The correlation between these variables and college GPA has been demonstrated to be positive by multiple studies (Brown-Welty, Tracz & Voung, 2010; Bong, 2001; Zimmerman, 2000). Similar studies have analyzed this correlation and have identified that between 11% and 14% of the variance in college students GPAs depend on academic self-efficacy (Gore, 2006; Le, Casillas, Robbins, & Langley, 2005; Robbins et. al., 2004). Various other reports also indicate similar correlations between Academic Self Efficacy and the academic success of minority students. (Solberg & Villanueva, 1997). With the removal of the remediation programs inside the CSU system, there is limited knowledge into what the impact of these programs were, in relation to the development of Academic Self Efficacy of students. With no other system appearing to absorb the responsibilities of developing the most reliable predictor of academic success amongst college students.

Primary Populations of Observation

Although current policy developments in regards to remedial education impose a drastic change for a multitude of groups within the general student population of the system. Underrepresented Minorities (URM) and Pell Recipients represent two of the most prominent communities. Most recent data reports that 48% of all incoming students inside the CSU system are pell grant recipients.This number is equally substantial for URM students, which represent44% of the total student population at the Cal State system (U.S Dept. of Ed., 2017). Underrepresented Minority groups consist of students who identify their race/ethnicity as American Indian, Hispanic or African American. This traditional URM dichotomy does not include any other race or non-citizen individuals (California State University, 2010). Opposite to the ethnic-based category, Pell Recipient groups are composed of students who based on CSU standards are categorized as low income and are eligible for federal student aid assistance (Legislative Analyst Report, 2017). These two major groups not only demonstrate to be a predominant presence in the composition of the student population within the CSU system. Data also identified these two groups as major participants in remedial programs (Cuellea-Mejia, Johnson & Rodrigues, 2016; Legislative Analyst Report, 2017). Which have now been removed by the stipulations of E.O. 1110.

Prior to the implementation of this executive order, 53% of all Underrepresented Minorities entering the CSU system were deemed in need of remediation in at least one subject (Cuellea-Mejia, Johnson & Rodrigues, 2016). This behavior was even more predominant amongst Pell

recipients. At the time, data by the Public Policy Institute of California reported that 86% of all Pell Grant recipients were deemed in need of remediation courses (Cuellea-Mejia & Rodrigues, 2017). The conjunction of both factors; a substantial share population and the high levels of remedial course demands amongst these groups. Makes them a pivotal factor in the discernment process of how remedial programs have impacted a substantial section of the CSU student population.

Under the current policy, there is not a unified system that has been able to gather an accurate measurement of Academic Self Efficacy and Social Cognitive Skills amongst students Programs such as Summer Bridge and Early Start have received additional support from the CSU
system to continue these efforts (Exec. Order No. 1110, 2017). But overall these programs continue to be primarily focused on surface measurements such as Grade Point Average and graduation rates, and not on other extensive measurements such as Academic Self Efficacy or
Social Cognitive Skills (Brown-Welty, Tracz & Voung, 2010; Hanlon & Schneider, 1999). Regardless of these factors pipeline programs continue to represent the most ideal population of measurement, since both of these share a very similar population to that of former remedial programs (Strayhorn, 2011). These programs represent the ideal population to measure the effects of Executive Order 1110.

Success Rates of Remedial Education

Although a wide range of literature establishes that recent standards of measurement such as Academic Self Efficacy and Social Cognitive Skills are the most accurate approaches for measuring the levels of student success (Brown-Welty, Tracz & Voung, 2010). Institutions of higher education across the country, including the CSU system, have continued to utilize statistical approaches to measure and predict the levels of student success in participants of remedial education programs. Observing student success through this lens, one can observe that URM students placed in remedial programs have continued to report negative outlooks in their academic performance (Complete College America, 2012). National data has reported that 65.9% of Hispanic students and 64.6% of African American students, report to have not been able to complete their remedial course requirements with a passing standing in two years (Complete College America, 2012). Although this is, in fact, an alarming level for URM students, it is important to note that these high rates of failure are also shared by the non-URM population who experience 63.6% of failure at the national level (Complete College America, 2012).

Student success through traditional standards of measurements also reflects a negative outlook. Research reports that students who do not take remedial courses are more likely to graduate on time (Complete College America, 2012).. This same research reports that only 35.1% of students who took remedial education graduate within 6 years. In juxtaposition to 55.7% of students who did not take remedial education and that reported to have graduated in the same amount of time nationwide at four year institutions (Complete College America, 2012).

In a more meticulous analysis, amongst the 48.2% of Hispanic students and 61% of African American students enrolled in remedial education at the CSU system. Only 54.9% and 36.8% respectively were capable of successfully finishing the remedial course requirements in two years or less. Overall, similar data reports that URM students only have a 45.8% successful remedial education completion. This in comparison to the greater 54.9% of success rate amongst the 17.3% enrollment of non-URM students in the CSU system (Complete College America, 2012). It is pivotal to understand that when comparing this data, the discrepancies amongst these two groups can also be attributed to many other factors outside the scope of this study such as college readiness and additional support accessibility. But overall these discrepancies represent a negative barrier for the advancement of URM communities in higher education.

Recent research has also attempted to measure the variables of academic confidence amongst various ethic groups. Research has determined a substantial difference in academic self efficacy rates amongst URM and non-URM students groups. According to the report, URM students often report 15% less ration percentage in regards to the levels of cognitivestrategies, motivation and delay gratification (Bembenutty, 2007). This variance was also reflected in substantive measurements of students' success such as grade point average and course performance. Such phenomena is primarily attributed to low academic confidence presented amongst URM students (Bembenutty, 2007). The behavior and causation appear to also be primarily present in Hispanic students populations. The sample population reported a significantly low ration in academic self confidence when compared to their African American counterparts (Gloria & Robinson, 1996; Gloria et al. 1999). These discrepancies once again were also reflected on traditional points of measurement for student success such as course performance and grade point average.

Conclusion

The long-standing institution of remedial education in California was established through an extensive history of policy changes and pedagogical developments. This historical presence was disrupted by the introduction of Executive Order 1110.This policy demanded the elimination of remedial courses and placement examinations in the entire system. This modification represented a clear effort by the largest system of higher education in the world, to increase the graduation levels of its current and future cohort classes. Similar to the historicalpopulation composition of of this system, the CSU has primarily measured the college success of students through numerical measurements such as GradePoint Average and graduation rates. Nevertheless, recent literature

identifies academic self-efficacy and social cognitive skills as the primary indicator of college success. Although this is considered to be the central indicator of students' future academic success, the CSU system and its former remedial programs failed to identify and record academic self-efficacy as a relevant measurement of college success.

The primary sample population in this research is based on the former composition of remedial programs within the CSU system. Underrepresented Minorities (URM) and low-income students (Pell recipients) conformed to a majority of the student body of these programs. In order to gather a concrete understanding of the major effects of Executive Order 1110 this research seeks to analyze populations that might report similar demographic characteristics. In accordance with previously established literature, this research will focus primarily on the levels of academic self-efficacy and its development amongst these specific demographic groups in order to clearly define the effects of the policy.

The first objective of this research will be to first analyze if remedial programs did, in fact, increase the academic self-efficacy amongst URM and Pell Recipient students at one of the largest universities within the CSU system. This initial analysis will be conducted by analyzing the current levels of academic self-efficacy of the last cohort class to have received remedial education at this institution. This research also takes into consideration the limitations imposed by other variables that could have influenced the results of this sample population. But as previously explained, the removal of these remedial programs increases the difficulty of maintaining accurate information about this variable amongst this specific population.

After determining if these programs had, in fact, an influence on the levels of academic self efficacy amongst these specific populations, the second major objective of this research will be to analyze if the subsequent removal of remedial education represented a negative setback in the support for these groups. This specific analysis will be accomplished by analyzing sample populations that share similar demographic characteristics to that of former remedial programs but that have not received any remedial education during their college career. Subsequently, this analysis will permit us to understand and predict potential outcomes on the direct measurements of student success utilized by the CSU system.

METHODS

Participants and Procedures

The total number of participants for this study were 36 college students (21 self-identified females and 15 self-identified males) enrolled at a mid-sized urban university inside the California State University system. This study did not collect numerical specific age of par ticipants, but categorical age data collection was obtained. The result of this section reported that (97.1%) of the total participants identified to be in between the ages of 15 to 30 years old, and (2.9%) between the ages of 31 to 45 years old. Students also self-identified their racial/ethnic backgrounds as follows: Caucasian (11.45%), Afri can-American (5.7%), Latino/Hispanic (71.45%), Asian (5.7%) and Two or More received (5.7%). Note that the categories for Native American, Native Hawaiian, Pacific Islander and Prefered not to say received no answer. Participants also self-reported their Grade Point Average (GPA) as follows: 1.50 to 2.50 (17.10%), 2.5 to 3.5 (60.00%), and >3.5 (22.90%). Note that the <1.50 section received no answer. Finally, (37.12%) of the participants self-reported to have received remedial education during their college career at this institution, while (62.88%) self-reported that they did not. Participants received a digital form of the Motivation Strategies for Learning Questionnaire instrument and completed it during weeks 6 and 7 of the Spring '20 academic term.

Instruments

The Motivation Strategies for Learning Questionnaire was utilized as the primary instrument for this study. This instrument is a self-report questionnaire utilized to measure th levels of academic self-efficacy and cognitive social skills amongst students of all ages. This study is funded through a specific theoretical framework that establishes motivation and learning strategies as the two primary factors determining the success of students in the various levels of education (McKeachie, Pintrich, Lin & Smith, 1991). According to the implementation procedures of the Motivation Strategies for Learning Questionnaire (MSLQ), scales within this instrument can be modular and can be modified to attain the needs and population variations of each study (Duncan et. al., 2015).

This instrument was divided into two primary sections and was modified in accordance with the education level of the target population in this study.In addition to this, the instrument utilized a seven-point Likert scale that ranges from "not at all true of me" point of scale to "very true of me" scale point (Duncan et. al., 2015). The motivation section, which measures the levels of academic self-efficacy amongst students, is in standard composed of 31 items. But based on the mailable nature of this instrument, this particular study utilized 13 items correspondingto the following subsections of motivation: Control of Learning Believes, Self-Advocacy,-Self-Understanding and Motivation-Confidence. The second section of measurement is identified as Learning Strategies and with its 29 items is designated to measure the levels of academic skills that have a direct impact on the class performance of a student. For the purpose of thisstudy and similar to the modifications given to the Motivation section, only 24 items were utilized. The subsections that Learning Strategies will measure Cognitive Strategies-Metacognition Self Regulation, Resource Management-Peer Learning, Help-Seeking and Effort Regulation.

For the purpose of this study, a scale was developed in order to create a greater numerical understanding between the differences of Academic Self Efficacy (ASE) and Social Cognitive Skills (SCS) amongst the various groups of students.This scale was divided and ranged as follows: H-Standing (7-4.66), M-Standing (4.66-2.33) and L-Stand-

ing (2.33-1). Thesemeasurements then were consistently utilized to place and analyze the average responses of the various groups of interest on this study.

Data Collection

Data for this study was collected through the Motivation Strategies for Learning Questionnaire. This instrument was composed of 42 subjects that measure two primary characteristics; Academic Self Efficacy (ASE) and Social Cognitive Skills (SCS). In order to concisely collect data in relation to the levels of these two particular characteristics a Seven Point Likert Scale was utilized. This instrument was distributed to 36 students from various backgrounds and diverse sub-student populations. Five university wide organizations participated in the distribution of the survey and the initial 30 participants were awarded a monetary compensation for their participation.

The initial phase of the data implementation consisted of 15 physical surveys that were distributed individually during week 6 of the Spring semester. Following the implementation of this phase, university wide entities distributed the survey to their sub-student populations and 21responses were collected through week 7 of the same academic period. In addition to the components of the instrument, this survey is also collected categorical grade point average data in order to track the correlation between traditional forms of measurement of student success such as GPA and various factors such as ASE and SCS, as well as, common behavioral patterns amongst student populations.

Variables

The primary focus of this study is to measure the direct effects that the implementation of Executive Order 1110 had in the levels of student success of underrepresented minorities (URM) and low income (Pell Recipients) populations; within the California State University system during the first two years after its implementation. Through the great majority of the literature, student success is defined by two major components, Academic Self Efficacy (ASE) and Social Cognitive Skills (SCS). For the purpose of this study, data regarding traditional academic performance forms of measure, such as grade point average, were collected to serve as the dependent variables of the study. Ethnicity and categorical age group items served as the nominal variables of the study. Simultaneously these two were closely monitored and served as dependent variables for this study. No data was collected in regards to the income and economic levels of the participants. In order to follow the current behaviors amongst research regarding student success, this study utilized Academic Self Efficacy and Social Cognitive Skills as the independent variables of measurement. These two were organized and implemented in accordance to the Motivation Strategies for Learning Questionnaire previously described.

RESULTS

Prima facie results of this research depict early answers upon the primary questions established in the study.In the following section, various behaviors and correla tions can be observed amongst the sample population and the tested variables, resulting in the early data sets necessary to elaborate a comprehensive and holistic response regarding the impact of this policy. The first data analysis of this section helped us understand the distribution of ethnicity and ASE/SCS average levels amongst the examined population. The primary purpose of this initial analysis was to demonstrate the clear limitations in the data and to urge for the continuous collection of more meticulous and advanced data in regard to ASE/SCS levels in college students. The second and third section shared similar analysis but with different categorical division amongst the general population of students who were examined. In Table No. 2, we can observe a general analysis of how ASC/SCS levels fluctuate amongst students of differentclass-standing groups.

The following table, and the one that presents the greatest amount of discovery through this study, demonstrates the gap of student success (based on the definition given throughout this study) between groups of non-URM and URM students.

Graphs No. 1 to 3, demonstrate the direct and profound correlation between a history of remedial education and common measurements of student success such as grade point average. This is primarily used in order to ratify the idea that if URM students demonstrate to have a greater variance between GPA and ASE/SCS levels. Subsequently this specific group demonstrated early signs of the positive or negative impact of Executive Order 1110. Overall, this early analysis demonstrates that there is in fact a greater need for data regarding these specific circumstances in order to truly determine the everlasting effects that this policy had in this particular group.

Average ASE/SCS in Relation to Ethnicity

Initial data analysis of this study depicts the distribution of responses amongst the population collected.It is important to recognize the limitations in responses from students who self-identified as African American, Caucasian and/or Asia. Although this initial data reflected the actual total population of the Cal Poly Pomona. Future data is necessary in order to supplement the data collected here and provide a cohesive understanding of the independent variables measured amongst various populations of interest. As previously described, a scale wasdeveloped in order to create a greater numerical understanding between the differences ofAcademic Self Efficacy (ASE) and Social Cognitive Skills (SCS) amongst the various groups. Which helped this study to develop a clearer perspective amongst the demographic distributionand the existing gaps amongst the groups. The final data in Table 1 demonstrated that African American (M-Standing; 4.65 Aver. Res.) and Hispanic/Latinx (M-Standing; 4.81 Aver. Res.) reported considerably lower levels of ASC and SCS when compared to Cacausian (H-Standing; 5.27 Aver. Res.) and Asian (H-Standing; 5.36 Aver. Res.) students. In other words, African American and Hispanic/Latinx students report to have lower levels of student success whencompared to their Caucasian and Asian counterparts. This data ratifies the primary idea established through other research, that students of similar

demographic groups often report similar levels of ASE and SCS.The final data also demonstrates that although a multitude of previously described educational policies within the CSU system have attempted to close some of the traditional measurements for students success and have in fact experienced gradual reductions. When it comes to a more comprehensive and research-based measurement for students success established by the great majority of academia, considerably high gaps continue to exist amongst these various ethnic groups. The results also demonstrated that this is especially true amongst African American students who reported a -0.71 response difference when compared to Asian students, a -0.62 response difference when compared to Cacausian students, and a -0.16 difference when compared to Hispanic/ Latinx students. In other words, based on the presented data African American students report to have a lower likelihood to succeed in and outside the classroom when compared to any other group measured in this study.

Average ASE/SCS in Relation to URM Status

Non-URM and URM in Relation to Average

ASE/SCS Amongst All Responding Students | N=36

Class Standing	N	%	ASE/SCS Average	ASE/SCS Standing
Non-URM	6	16.67%	5.18	*H*
URM	30	83.33%	4.65	*M*

URM: Underrepresented Minority, this group is composed of African American, Latinx/Hispanic, Native American and Pacific Islander sub-divisional groups[1]. **Non-URM:** Non Underrepresented Minority, this group is conformed by Asian American and Caucasian sub-divisional groups[2]. **ASE**: Academic Self Efficacy / **SCS**: Social Cognitive skills. **H-Standing**: High standing, category from 4.66-7 average answer / **M-Standing:** Medium standing, category from 2.33-4.66 / **L-Standing**: Low standing, category from 1-2.33.

1 California State University, 2019

Table 2 depicts the distribution of percentage answers and average CASE and SCS responses and scale standing of students who self identified as an Underrepresented Minority (URM) and those who self identified as not an Underrepresented Minority. The final data reported that those participants that self identify as URM experience a -0.53 difference when compared to those students who self identify as as non-URM. This data therefore demonstrates that when it comes to the levels of students success, URM students at this institution report considerably lower levels. Similar to the scale system utilized in the initial analysis, URM students presented a medium standing level with 4.65 average response. While non-URM students present a high standing level by reporting a 5.18 average answer.When it comes to translating these results into actual implications, primarily in that of the success gaps for students. The data determines that Underrepresented Minorities at this institution report a lower likelihood to succeed in and outside the classroom, with a -0.53 variance, when compared to non-URM students. Similar to the prior data presented, the correlation of this success gap with the implementation of Executive Order 1110 is difficult to determine, since no other data collection by the system utilized the same metrics as this report. But what this data can determine is that all other prior policies have failed to solve the student success gaps amongst these groups.

Ethnicity and Average ASE/SCS of All Responding Students | N=36

Ethnicity	N	%	ASE/SCS Average	ASE/SCS Standing
Caucasian	4	11.11%	5.27	*H*
African Ame.	2	5.56%	4.65	*M*
Latinx/Hispanic	28	77.78%	4.81	*M*
Asian	2	5.56%	5.36	*H*
Native Ame.	-	-	-	-
Native	-	-	-	-
Islander/Pacific Islander	-	-	-	-
Other	-	-	-	-
Prefer not to say	-	-	-	-

ASE: Academic Self Efficacy / **SCS**: Social Cognitive skills. **H-Standing**: High standing, category from

Average ASE/SCS in Relation to Class Standing

An equally important point of analysis and observation is that of ASE and SCS levels in connection to class standing. This is pivotal due to the fact that as of 2018, all students entering any of the various CSU campuses havenot received any form of mandatory remedial education and all of those currently enrolled as first or second year students would have experienced the transition out of a traditional remedial education curriculum. In order to explore in more detail this hypothesis, the levels of ASE and SCS of the different class standings were analyzed. Table 3 provides a clear and detailed perspectiveinto the fluctuation of these variables among the fou major groups. Through the first analysis, it can then be observed that levels of ASE and SCS are considerably high amongst First Year students with an average 5.58 response. This number then drops amongst students who self-identified as Second Year, who reported a -0.91 variance when compared to their first year counterparts. An explanation for this behavior can be that compared to first year students, second year students experience the transition out of a remedial curriculum. This assumption is not certain since no prior study before the elimination of remedial education maintained track of the ASC/SCS levels in these groups. This particular group should be of primary interest for further similar research. Since they in fact could demonstrate at a greater extent the implications of this policy.

Table 3 provides a clear and detailed perspective into the fluctuation of these variables among the four major groups. Through the first analysis, it can then be observed that levels of ASE and SCS are considerably high amongst First Year students with an average 5.58 response. This number then drops amongst students who self-identified as Second Year, who reported a -0.91 variance when compared to their first year counterparts.An explanation for this behavior can be that compared to first year students, second year students experience the transition out of a remedial curriculum. This assumption is not certain since no prior study before the elimination of remedial education maintained track of the ASC/SCS levels in these

groups. This particular group should be of primary interest for further similar research. Since they in fact could demonstrate at a greater extent the implications of this policy.

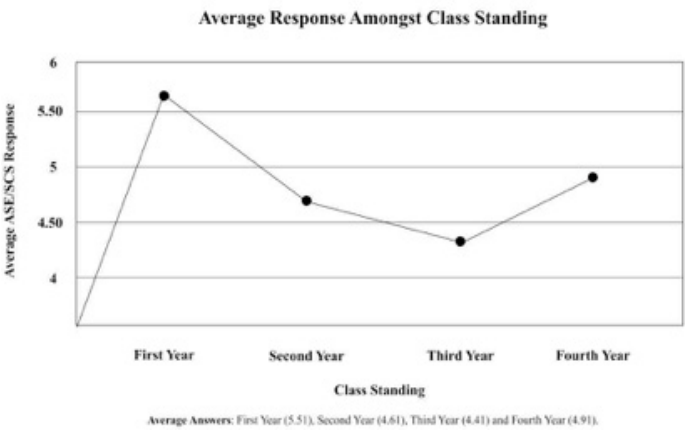
Class Standing and Average ASE/SCS of All Responding Students | N=36

Class Standing	N	%	ASE/SCS Average	ASE/SCS Standing
First Year	2	5.56%	5.58	*H*
Second Year	2	5.56%	4.61	*M*
Third Year	10	27.78%	4.41	*M*
Fourth Year	21	58.33%	4.93	*H*
No Answer	*1	2.78	4.43	*M*

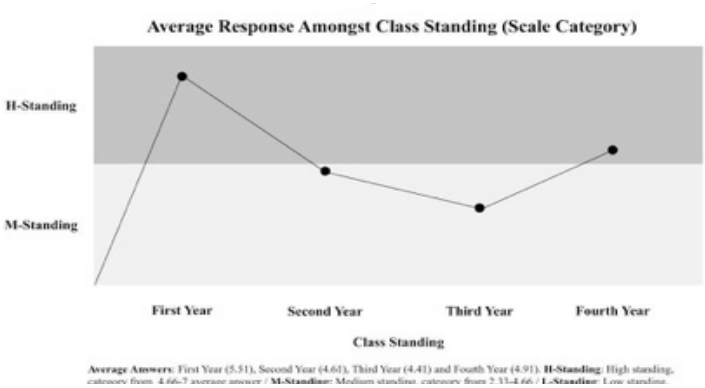
No Answer: participant did not identify class standing but completed the entire instrument **ASE**: Academic Self Efficacy / **SCS**: Social Cognitive skills. **ASE**: Academic Self Efficacy / **SCS**: Social

A similar drop can also be observed amongst Third Year students. This particular group reported the lowest levels of ASE and SCS of all other groups with an average response of 4.41. This represented a total drop of -1.17 when compared to their First Year counterparts, and a -0.52 when compared to their Fourth Year counterparts. No clear explanation upon this behaviorcan be elaborated, but what can be noted is that this is particularly alarming, since ASE/SCS levels are the best indicators for self efficacy and success in and outside the classroom.

Fourth Year students reported an average ASE and SCS response of 4.93, which represented the second highest amongst all other groups. Although the average response for this group was -0.65 less than that of First Year students, both of these groups received an H-Standing based on the scale of this study.The results are particularly interesting, since the demonstrate that the levels of ASE/SCS are high coming into college. Then they experience a drastic drop all the way into the last year in college. Once again it is important to note that this behavior can be unique to this institu-



tion or sampled population. But overall this behavior can be the result of college students being able to develop their levels of ASE/SCS, as well as, many other variables that were not measured in this particular study.



Average Respondents With a History of Remedial Education and Respondents With No History of Remedial Education

Class Standing	N	%	ASE/SCS Average	ASE/SCS Standing
Non-Remedial	24	66.67%	4.83	*M*
Remedial	12	33.33%	4.89	*M*

ASE: Academic Self Efficacy / **SCS**: Social Cognitive skills. **H-Standing**: High standing, category from 4.66-7 average answer / **M-Standing:** Medium standing, category from 2.33-4.66 / **L-Standing**: Low standing, category from 1-2.33.

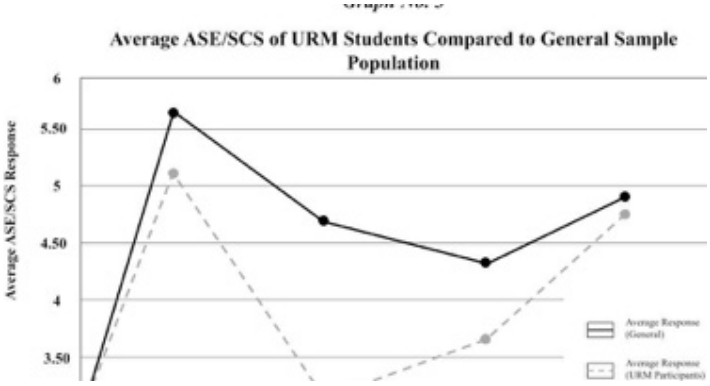
ASE/SCS in Relation to Remedial Education

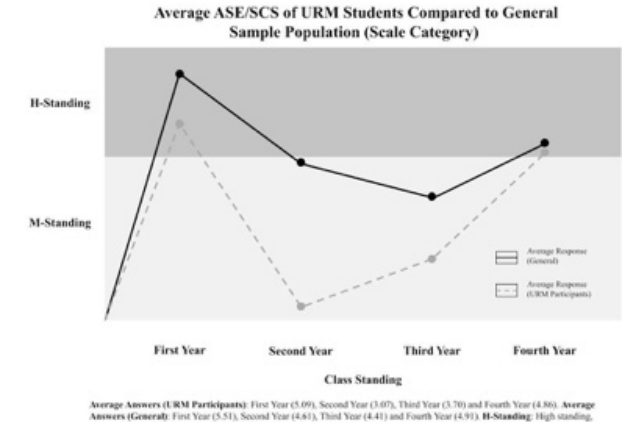
Compared to the drastic and cyclical fluctuations of ASE/SCS levels presented in prior analysis, Table 4 provides a distinct and consistent scenario. This particular analysis seeked to observe the differences in responses amongst two major groups: those of whom reported to havetaken any sort of remedial education during their college career and those who did not. The data demonstrates that although students who disclosed to have a history of remedial education scored an average of 0.06 higher than their counterparts. The two groups did not present any major differences, since based on their average response and the parameters established for the scale of this study, they both received a medium rate or M-Standing. This does not directly demonstrate that remedial education has a positive or negative impact in the levels of ASC and SCS amongst students.But what it does reflect is that even after a brief period of time following the implementation of E.O. 1110, the levels of ASE and SCS amongst those students with a history of remedial education continues to be low. Presenting a potential set back in the ultimate goal ofthe system, to increase student success across the board and primarily amongst those students who were left with no remedial education as one of their primary systems of academic support and development.

Variances in Responses Through Combined Analysis

Following the independent analysis of all these variables, it is then possible to develop a much clearer picture upon the levels of ASE and SCS based on a combined categorical analysis. Which is necessary for the creation of a much clearer perspective on the current standing

of student success two years after the implementation of E.O. 1110. This combined categorical analysis is presented in Graph 3 and Graph 4 . Both of these graphs compare the levels of ASE and SCS amongst the general sampled population and those responses deriving from URM participants. Graph 3 demonstrates the specific average response of both of these groups throughout their class standing, while Graph 4 provides a description on how these responses lead to the different standings based on the scale of this study.





Average Answers (URM Participants): First Year (5.09), Second Year (3.07), Third Year (3.70) and Fourth Year (4.86). **Average Answers (General)**: First Year (5.51), Second Year (4.61), Third Year (4.41) and Fourth Year (4.91). **H-Standing**: High standing.

The data presented in these graphs help us observe that although the responses of URM participants follow a similar behavior to that of the general sampled population, there are in fact multiple variances. Compared to that behavior of the general sample population, URM participants demonstrated to have significantly lower levels of ASC and SCS. This is particularly true amongst Second Year URM participants who experience a -1.34 negative drop whencompared to their counterparts. Even amongst the highest two groups, which are those composed of First Year students, URM participants reported a -0.42 negative variance.

Overall, the behavior of both populations also differentiate when it comes to the so-called pregressive recovery of ASE/SCS throughout the class standing. While the general sample population only experienced a slight increase of 0.30 between Second Year students (the lowest point at 4.61 average response) and Fourth Year Students (the second highest point 4.91 average response). Responses of URM participants expressed a higher recovery across class standing, by reporting a 1.79 positive increase between the lowest point with Second Year students at 3.07 and the second highest data point with 4.86 amongst Fourth Year participants.

CONCLUSION

In 2018, the CSU system decided to revert the existence of all remedial education curriculum in the system through the implementation of Executive Order 1110. The adoption of this policy resulted in the elimination of all testing for college level Mathematics and English material, the cancelation of all placing processes of all incoming students into no-credit remedial courses, and the increase of funding for other academic support systems and pipeline programs. By the time that this policy was adopted in California, the great majority of the students enrolled in a remedial course self-identified as an Underrepresented Minority. This represented an alarming issue for the system, since these populations have often been identified as at-risk or vulnerable sectors of the student body. A second major point of concern that derives from the implementation of this policy, was that at the time it was adopted there were no clear studies or reports analyzing the effects that this policy could have in the academic performance of Underrepresented Minority students.

These factors then became the primary influence to the creation of this particular research project. The hypothesis of this study centered on the idea that the implementation of Executive Order 1110 had a negative impact on the student success of Underrepresented Minorities inside the CSU system. In order to find an answer to this primary question, the study first seeked to understand and define the concept of student success. The majority of academia and research identified that Academic Self Efficacy and Social Cognitive Skills, and not Grade Point Average or graduation rates, were the best predictors and point of analysis for student success. Following the establishment of this crucial concept, the study then began to analyze the levels of these two variables amongst students at the Cal Poly Pomona. Which serves as one of the largest and most diverse campuses inside the CSU system. The study was capable of doing this by analyzing a diverse group of 36 students through an instrument called the Motivated Strategies for Learning Questionnaire. The application of this instrument amongst a diverse sample population allowed for the study to reach alarming but expected results.

The results of this study revealed that in fact the levels of student success amongst Underrepresented Minorities students are alarmingly low when compared to the general sampled population. These same results reporte negative gaps in the levels of students success that reached as high as a negative 1.37 point variance for some divisional groups of URM students. Results also demonstrate that second year students who also identified as minority, reported the lowest levels of Academic Self Efficacy and Social Cognitive Skills of any other group on this study.

Limitations

As previously established, the results of this study did report a gap in the student success of URM students at this particular campus. Limitations to the true analysis of this data derives from the fact that no other study has ever reported on the success of students through this particular lens. Although a great majority of academia and research identifies Academic Self Efficacy and Social Social Skills as the most accurate measurement for student success in and outside the classroom. The California State University

and similar systems have continued to utilize factors such as Grade Point Average and Exam performance to measure and predict the success of students. Therefore, making it difficult to directly attribute the existing success gaps to the implementation of Executive Order 1110. It is pivotal to note that in the perspective of public policy analysis, Executive Order 1110 can still be considered to be in its early stages of development. More time is necessary to be able to observe the complete ramifications of it, and the implications it could have in some of the traditional forms of measurement for student success such as Grade Point Averages.

In addition to this, a policy that has affected the largest public system of higher education in the world requires a series of system-wide studies, that can help us determine the various ramifications of this policy. Regardless of these limitations, it is important to note that the primary purpose of this study is to serve as the initial step and point of reference for further research. This is pivotal when attempting to understand the effects that this and various other policies have in the success of students, particularly of those in vulnerable and at-risk communities.

Policy Recommendations

Although Executive Order 1110 is currently undergoing its very initial stages of analysis, it is important that the CSU system establishes policies that mandate campuses to maintain track of factors such as Academic Self Efficacy amongst vulnerable student populations, in order to accurately understand the ramifications of the policy. In conjunction to this, a system-wide reformation in the way student success is measured and predicted must take place, in order to guarantee that Executive Order 1110 and any other future policies are in fact fulfilling the needs of students.

As determined in the guidelines of Executive Order 1110, a much greater financial allocation for the support systems and pipeline programs that have absorbed the responsibilities of preparing students for college-level material is also needed. Currently, the system has granted a decent amount of financial support for more staff positions and programs to be created, but this is not nearly enough to support the continuously growing attendance of students within the CSU system. Therefore, a greater focus on these programs and the expansion of their financial allocation is pivotal for the future success of students.

In addition to these policy recommendations, it is important that other major populations that were impacted by the implementation of this policy should be analyzed. Low income students were the second major population of remedial education programs. The research conducted here did not analyze this particular population, but acknowledges that similar to Underrepresented Minorities, low income students share a multitude of limitations and barriers.

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