

The Identification of Motivational Factors Influencing Community College Enrollment Based on Student Gender, Age at Time of Enrollment, and Familial Level of Educational Attainment

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Abstract

Prospective college students have many options to choose from when deciding which type of higher education institution to attend. What compels potential students to enroll in a community college as opposed to other higher education institutions is unknown. The purpose of the study was to explore the academic motivation of students currently enrolled in a New York City community college using the Academic Motivation Scale College Version. In addition, the study examined the relations between academic motivation and student gender, age at time of enrollment, and familial level of educational attainment. Results from the present study may provide justification for incorporating dimensions of motivation into community college campus life for future students as well as benefit community college recruitment, retention, and completion efforts.

Keywords: community college, motivational factors, enrollment

1. Introduction

Prospective college students have many options to choose from when deciding which type of higher education institution to attend. The options range from traditional public and private 4-year universities, to online colleges, to community colleges and more. When making the college-choice decision, some potential students consider applying to various colleges and universities, while others quickly decide to enroll in a particular school. What compels potential students to enroll in a community college as opposed to other higher education institutions is not known. College choice has been defined as “the process through which students decide whether and where to go to college” (Bergerson, 2009, p. 2). Understanding the factors that influence enrollment can help universities attract and retain students in an increasingly competitive marketplace. This study explored motivational factors that contribute to students’ choice to enroll in a specific community college.

Every day, society transforms itself, globally, economically, and technologically (Bandura, 2006). Competition, economic depression, and degree completion goals for community colleges require students to have “new types of competencies” (Bandura, 2006, p. 9) to be able to compete successfully locally, nationally, and globally in the 21st century. According to the American Association of Community Colleges (AACC, 2017), “Without community colleges, millions of students and adult learners would not be able to access the education they need to be prepared for further education or the workplace” (p. 1). Community colleges are a vital part of the postsecondary education delivery system in society. They serve almost half of the undergraduate students in the United States, providing open access to postsecondary education, preparing students for transfer to 4-year institutions, providing workforce development and skills training, and offering noncredit programs ranging from English as a second language to skills retraining to community enrichment programs or cultural activities (AACC, 2017). Community colleges often are the access point for education and a real catalyst for economic development. Given the increasingly visible role community colleges play in workforce training, this present study posits that a more entrepreneurial vision is necessary to enhance community college enrollment and retention rates.

This quantitative study was designed to explore the academic motivation of students currently enrolled in a New York City community college by using the AMS-C (Vallerand et al., 1992) on an existing population that were actively pursuing degrees at a community college at the time of data collection. The study attempted to sample a

wide population through students registered in courses in behavioral sciences which were required of all degree-seeking students and open to all majors in the college. Based on the guidelines provided by Wiersma and Jur (2009), who specified that “non-experimental quantitative research is broad in scope, ranging from status quo studies to ex post facto research, which may be causal-comparative or correlational in nature” (p. 190), the present study identified motivational factors of students that were enrolled in a specific community college. In such studies, independent variables are interpreted and are not adjusted by the researcher in any way. Although correlation research cannot determine a cause and effect relationship between variables, it can determine if a relationship exists between two or more variables.

To date, minimal research has been conducted on the motivational factors that influence specific groups of students to enroll in a community college. The lack of information leaves community colleges in uncharted waters with regard to attracting and initiating new and innovative ways to enroll and perhaps retain students. Motivational factors leading to enrollment among community college students was investigated in this study. The AMS-C (Vallerand et al., 1989) was used to determine the intrinsic and extrinsic motivational factors influencing first-year students. For the purpose of this study, the AMS-C was amended to add three demographic questions pertaining to gender, age at the time of enrollment, and familial level of educational attainment. While there are many ways to characterize a student that is the first in family to enroll in college, regardless of how they are defined, first-generation college students enroll and graduate at lower rates than do other students (Smith, 2015). Motivation involves a constellation of beliefs, perceptions, values, interests, and actions that are all closely related.

The Ryan and Deci (2000) self-determination model was used to ascertain if there was a difference in the motivational levels of students based on student gender, age at the time of enrollment, and familial level of educational attainment. Specifically, the following research questions guided the quantitative study.

RQ1: What motivational factors, as indicated by the AMS-C, most influence a student’s decision to enroll in a community college?

RQ2: To what extent do males and females differ with regard to the most influential motivational factor leading to community college enrollment?

RQ3: Are there motivational differences between students who are first in their immediate family to attend college when compared to students who have a prior family member attend college?

RQ4: To what extent are there associations between the seven motivational factors and the age range at enrollment of students in a community college?

Table 1 outlines the variables that were used in each of the four research questions, and the inferential statistical tests that are proposed to address each research question. The methods of inferential statistical analysis to address RQ2, RQ3, and RQ4, are (a) independent-sample t tests (using t statistics) to compare the mean scores for the continuous level measurements of the motivational factors between two categories of students; and (b) Pearson’s chi-square contingency table tests (using χ^2 statistics) to measure the associations between the frequencies of students in two categories of motivational factors and the frequencies of four age categories of students.

Table 1. Variables and tests used to address the research questions

Research Question	Variables	Statistics
RQ1: What motivational factors most influence a student's decision to enroll in a community college?	Sum of item scores for each of the seven motivational factors (see Table 1)	Computation of descriptive statistics (mean, standard deviation, 95% confidence intervals) for each of the seven motivational factors
RQ2: To what extent do males and females differ with regard to the most influential motivational factor leading to community college enrollment?	One motivational factor with the highest mean value is the dependent variable Gender (with two categories) is the independent variable	Comparison of mean values for each motivational factor vs. gender, using independent samples <i>t</i> tests
RQ3: Are there motivational differences between students who are first in their immediate family to attend college when compared to students who have a prior family member attend college?	Sum of scores for each of the seven motivational factors (see Table 1) are the dependent variables First in family to attend college (with two categories) is the independent variable	Comparison of mean values for each motivational factor vs. first in family to attend college, using independent samples <i>t</i> tests
RQ4: To what extent are there associations between the seven motivational factors and the age range at enrollment of students in a community college?	Seven motivational factors, each classified into two ordinal categories, where 1 = low motivation (less than or equal to mean score) and 2 = high motivation (above mean score) are the dependent variables Age range at enrollment with four categories is the independent variable	Assessment of the strength of the association between the two motivational categories and the four age categories in contingency tables using Pearson's chi-square contingency table tests

Statistical significance at $p < .05$ only indicates if the results probably did not deviate from random chance, but statistical significance does not in any way reflect the practical significance or meaningfulness of the results of inferential tests (Ferguson, 2009). In educational research, "statistical significance should not be considered as one of life's guarantees. Effect sizes are needed" (Vacha-Haase, 2001, p. 219). Therefore, the effect sizes (Cohen's *d* for *t* test and Cramer's *V* for χ^2 test) are also computed. The effect sizes indicate practical significance (i.e., how meaningful are the differences between the means scores).

The present study was limited to one community college campus located in New York City. Another limitation was in the use of self-reported data, whether relying on preexisting self-reported data or conducting a quantitative research study and gathering the data, self-reported data was limited by the fact that it rarely can be independently verified. In other words, this study took what students reported on the surveys, at face value. Self-reported data contain several potential sources of bias that can be noted as limitations such as selective memory (remembering or not remembering experiences or events that occurred at some point in the past) and exaggeration (the act of representing outcomes or embellishing events as more significant than is actually suggested from other data).

2. Findings

The purpose of this research was to examine the relationship between seven motivational factors for community college enrollment, gender, whether or not first in family to attend college and ages of students at time of enrollment.

The first research question was as follows: What motivational factors most influence a student's decision to enroll in a community college? Composite scores were created and analyzed for each of the seven subscales of the AMS-C motivational factors for attending college. Internal reliability of each of the subscales was assessed using Cronbach's alpha. It was found that the inter-item reliability for all seven of the motivational factor subscales was acceptable ($r \geq .70$). In order to determine if any of the motivational factors were significantly higher (or lower) than the others, the appropriate statistical test was conducted. First, the statistical assumptions associated with the one-way repeated-measures ANOVA were assessed.

The first two assumptions, that the dependent variable is continuous, and the independent variable consists of two or more "related" categories (that is, each student has a score on each subscale) are accounted for in the design of the study. The assumption that there were no significant outliers was assessed using a cut-off of ± 3 standard deviations from the mean. Three outliers were identified in the Amotivation subscale (scores 3 standard deviations greater than the mean) and removed from subsequent analysis. The assumption of normally distributed data was assessed using the Shapiro-Wilk test of normality. A significant *p* value ($< .05$) indicates that the shape of the distribution significantly differs from that of a normal distribution. The results of this

analysis revealed that none of the seven motivational factor subscales approximate a normal distribution.

Therefore, it was determined that Friedman's nonparametric test was more appropriate statistical analysis to compare motivational subscale factor scores. Friedman test compares the mean ranks between the groups and indicates how the groups differ. However, it was more useful to interpret the median value for each group.

The Friedman test revealed an overall significant difference in the seven motivational factor subscales, $\chi^2(6) = 312.79$, $p < .001$. As a follow-up, separate Wilcoxon signed-rank tests on the different combinations of comparisons amongst the factors were conducted. The Wilcoxon signed-rank tests demonstrate that the median for the extrinsic motivation: external regulation motivational factor ($Mdn = 25$) was significantly higher than all other motivational factors, except for the extrinsic motivation: identified factor ($Mdn = 24$). Therefore, it can be concluded that the two extrinsic motivation factors, external regulation and identified, were the most influential motivational factors in this sample of community college students.

The second research question, to what extent do males and females differ with regard to the most influential motivational factors leading to community college enrollment? For RQ2, whether either of the two subscales differ by gender was tested. Regarding gender comparisons for the external regulation extrinsic motivational factor subscales, the assumptions of the independent-samples t test were tested. The first two assumptions, that the dependent variable (external regulation) was continuous and the independent variable (gender) consisted of two independent groups (males vs. females) were accounted for in the study design. One outlier (3 standard deviations below the mean) was identified and removed from analysis. To test that external regulation is approximately normally distributed for each gender, Shapiro-Wilk tests were conducted. Results indicated that neither males (Shapiro-Wilk = .858, $df = 35$, $p < .001$) nor females (Shapiro-Wilk = .887, $df = 86$, $p < .001$) distribution of scores on the external regulation subscale approximated a normal distribution. Therefore, the Mann-Whitney U test was conducted, comparing the medians for males and females on external regulation. No statistical difference was found between male and female external regulation scores ($U = 1493.0$, $p = .945$).

Regarding gender comparisons for the identified extrinsic motivational factor subscales, the assumptions of the independent-samples t test were tested. The first two assumptions, that the dependent variable (identified – extrinsic motivation) was continuous and the independent variable (gender) consisted of two independent groups (males vs. females) are accounted for in the study design. Two outliers (3 standard deviations below the mean) were identified and removed from analysis. To test that external regulation was approximately normally distributed for each gender, Shapiro-Wilk tests were conducted. It was found that neither males (Shapiro-Wilk = .930, $df = 36$, $p = .026$) nor females (Shapiro-Wilk = .888, $df = 85$, $p < .001$) distribution of scores on the Identified extrinsic motivation subscale approximated a normal distribution (see Figures 1 and 2 for frequency distributions of identified – extrinsic motivation by gender). Therefore, the Mann-Whitney U test was conducted, comparing the medians for males and females on the Identified extrinsic motivation subscale. A significant difference between males and females on the Identified extrinsic motivation subscale was observed, $U = 1171.5$, $p = .04$.

On average, females scored slightly higher ($Mdn = 25$) than males ($Mdn = 23$). As a measure of effect size, Cohen's d was calculated. On average, females scores on the Identified extrinsic motivation subscale were .40 standard deviations greater than males (Cohen's $d = .40$). This is a moderate sized effect (Cohen, 1992).

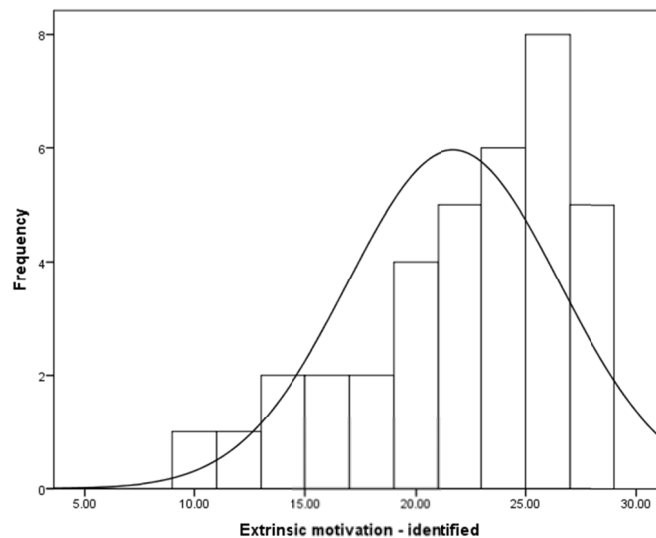


Figure 1. Frequency distribution of extrinsic motivation: identified motivational factor for males ($n = 36$)

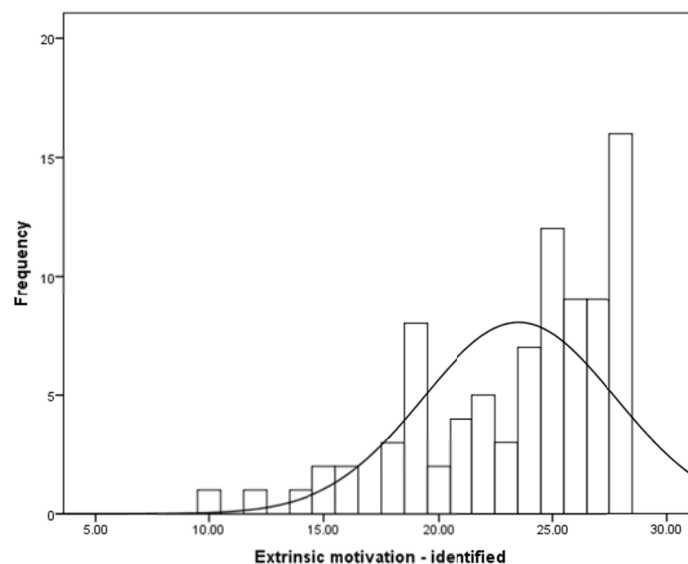


Figure 2. Frequency distribution of extrinsic motivation: identified motivational factor for females ($n = 85$)

The third research question, to what extent are there motivational differences between students who are first in their immediate family to attend college when compared to students who have a prior family member attend college? In order to investigate RQ3, students who have had a prior family member attend college and those students who have not had a family member attend college were compared. Prior to conducting the analysis, the appropriate statistical test was determined. In RQ2, it was found that extrinsic motivation—external regulation and extrinsic motivation—identified did not approximate a normal distribution for males or females, thus violating the assumption of normally distributed data for the independent-samples t test. Therefore, the first step was to determine whether any of the motivational factors violated the assumption of normality for students who have had a family member attend college and students who have not.

Using an alpha level of $p = .05$, it was found that for students who had a family member attend college, only the intrinsic motivation—experience stimulation motivational factor approximated a normal distribution. For students who did not have a family member attend college, intrinsic motivation—to know, intrinsic motivation—toward accomplishment, and intrinsic motivation—experience stimulation approximated a normal distribution. Within each motivational factor, only intrinsic motivation—experience stimulation approximated a

normal distribution for both students who have had a family member attend college and those who have not had a family member attend college. Therefore, the comparative analysis between students who have and have not had a family member attend college for all motivational factors was the Mann-Whitney U test. Additionally, an independent-samples *t* test was conducted on the intrinsic motivation—experience stimulation motivational factor for reasons of conclusiveness.

The results of the Mann-Whitney U test demonstrated no significant differences ($p < .05$) between students who had an immediate family member attend college and those who did not have a family member attend college for any of the seven motivational factors for attending college (see Table 2). There was a marginally significant difference, however, between students who had a family member attend college and those who did not on the extrinsic motivation—external regulation motivational factor ($p = .052$), indicating that students who have had a family member attend college ($Mdn = 25$) scored marginally higher on that factor than students who did not have a family member attend college ($Mdn = 22$). As a measure of effect size, Cohen's *d* was calculated. On average, students who had a family member attend college scored .31 standard deviations higher than those who did not have a family member who attended college (Cohen's $d = .31$). This was a small to moderate sized effect (Cohen, 1992).

Table 2. Summary of results of the Mann-Whitney U Test comparing students who have had a family member attend college and students who have not had a family member attend college for all seven motivational factors

Motivational Factors	College		No College		Mann-Whitney U	<i>p</i>
	<i>Mdn</i>	<i>n</i>	<i>Mdn</i>	<i>n</i>		
Intrinsic motivation: to know	20.0	68	21.0	53	1695.0	.575
Intrinsic motivation: toward accomplishment	20.0	67	19.5	52	1670.5	.701
Intrinsic motivation: experience stimulation	19	63	16.0	51	1370.0	.177
Extrinsic motivation: identified	24.5	68	23.0	53	1748.0	.777
Extrinsic motivation: introjected	21.5	66	21.0	52	1607.0	.553
Extrinsic motivation: external regulation	25.0	68	22.0	53	1431.5	.052
Amotivation	4.0	68	4.0	52	1598.0	.058

Note. An independent-samples *t* test was conducted on the intrinsic motivation—experience stimulation factor. The results were also non-significant, $t(112) = -1.18$, $p = .241$.

The fourth research question was as follows: To what extent are there associations between the seven motivational factors and the age range at enrollment of students in a community college? Community colleges are a vital part of the postsecondary education delivery system in society. They serve almost half of the undergraduate students in the United States, providing open access to postsecondary education, preparing adult students at various ages for transfer to 4-year institutions, providing workforce development and skills training, and offering noncredit programs ranging from English as a second language to skills retraining to community enrichment programs or cultural activities (AACC, 2017). Community colleges often are the access point for education and a real catalyst for economic development. In order to assess RQ4, first, each of the seven motivational factors were dichotomized into high and low motivation groups: 1 = low motivation (less than or equal to the mean) and 2 = high motivation (> mean). Then, a series of chi-square tests of independence were conducted to determine whether high or low motivation for each motivational factor subscales was significantly associated with each age range: < 23, 23–29, 30–34, and > 34.

The results of the chi-square tests of independence yielded no significant association between age range and motivation level for intrinsic motivation—to know, $\chi^2(3) = 1.34$, $p = .721$; no significant association between age range and motivation level for intrinsic motivation—toward accomplishment, $\chi^2(3) = 1.30$, $p = .729$; no significant association between age range and motivation level for intrinsic motivation—experience stimulation, $\chi^2(3) = 3.83$, $p = .280$; no significant association between age range and motivation level for extrinsic motivation—identified, $\chi^2(3) = 1.35$, $p = .717$; no significant association between age range and motivation level for extrinsic motivation—introjected, $\chi^2(3) = 1.85$, $p = .605$; no significant association between age range and motivation level for extrinsic motivation—external regulation, $\chi^2(3) = 2.73$, $p = .435$. There was a significant association, however, between age range and motivation level for the amotivation subscale, $\chi^2(3) = 9.99$, $p = .019$. The effect size, Cramer's *V*, revealed a small relationship between age range and high and low motivation groups for the amotivation subscale (Cramer's $V = .291$; Agresti, 2013). Comparing observed and expected values (generated via the chi-square analysis) demonstrate that number of students in with lower scores on amotivation ($n = 38$) was more than the expected number of students in the lower motivation group ($E = 33.1$)

for students in the 23–29 age range. Additionally, the number of students in the < 23 age group with lower motivation scores ($n = 23$) was less than the expected value ($E = 35.7$).

The findings indicate the most influential motivational factors were external regulation and identification, both within the extrinsic motivational spectrum (see Table 3). This finding reveals that enrollment in a community college is most influenced by extrinsic motivations, that is, external rewards and factors (that are important to an individual). This finding highlights the importance of demonstrating to potential students the rewards and possible achievements associated with community college enrollment. Similarly, community college students who had a family member attend college had higher levels of external regulation than first-generation college students.

Table 3. Summary of results

Research Question	Measure(s)	Analyses	Significance/Findings
RQ1: What motivational factors most influence a student’s decision to enroll in a community college?	Seven subscales of AMS-C motivational factors	Freidman test (Chi-square) Wilcoxon signed-rank tests on follow up comparisons	Two motivational subscales were higher than the rest 1) External regulation 2) Extrinsic motivational identified factor
RQ2: To what extent do males and females differ with regard to the most influential motivational factor leading to community college enrollment?	External Regulation subscale of AMS-C Extrinsic Motivational: identified factor subscale of AMS-C	Mann-Whitney U test (nonparametric two group comparison)	1) No significant difference in Males and Females in External Regulation 2) Females scored higher than Males in Extrinsic: identified factor
RQ3: Are there motivational differences between students who are first in their immediate family to attend college when compared to students who have a prior family member attend college?	Seven subscales of AMS-C motivational factors	Mann-Whitney U test (nonparametric two group comparison) Follow-up comparison: Cohen’s d effect size	1) Students who had a family member attend college scored marginally higher on external regulation ($p = .052$) Cohen’s $d = 0.31$
RQ4: To what extent are there associations between the seven motivational factors and the age range at enrollment of students in a community college?	Seven subscales of AMS-C motivational factors	chi-square tests of independence Cramer’s V effect size	1) Significant relationship between age and amotivation level

3. Summary of Results

In regard to the first research question, it was found that students’ scores on both external regulation and identified extrinsic motivation motivational factors subscales were significantly higher than scores on the other subscales, but not significantly different from each other. The finding indicates that responses on the AMC-C pertaining to External Regulation were higher than all of the other subscales (i.e., To Know, To Accomplish, To Experience Stimulation, Extrinsic Motivation-Introjected, Amotivation), and responses pertaining to Extrinsic Motivation-Identified were higher than responses on the To Know, To Accomplish, To Experience Stimulation, Extrinsic Motivation-Introjected, and Amotivation subscales. However, responses were not significantly different between scores on External Regulation and Extrinsic Motivation-Identified. Therefore, because scores were highest on both of these subscales, they are both considered the “most influential” for RQ2, indicating that both of these factors may be the most influential in terms of students’ motivation for enrolling in community college.

Using the results from the first research question, gender differences were assessed on the two subscales with the highest scores in RQ2. It was found that males and females did not differ on the Extrinsic Motivation-External Regulation subscale. However, on average, females scored significantly higher than males on the Extrinsic Motivation-Identified subscale; however, the size of the effect was moderate (Cohen’s $d = .40$).

To assess whether students’ family history of college attendance (RQ3) impacted their motivation, all seven subscales were analyzed, comparing students who had a family member previously attend college and students who did not have a family member previously attend college. It was found that students with a family member who had attended college scored higher on the External Regulation-Extrinsic Motivation subscale. However, this result must be interpreted cautiously, as the difference was only marginally significant ($p = .052$).

Finally, the relationship between students’ motivation level (high or low) and their age range (< 23, 23–29,

30–34, and > 34) was assessed (RQ4). The only significant finding was that students' motivation levels for the amotivation subscale were significantly associated with age range. Specifically, there were more students with low motivation than expected in the 23–29 age range, and fewer students with low motivation than expected in the < 23 age range. However, the size of the effect was small (Agresti, 2013).

The primary research questions investigated in the present study regarded the motivational factors leading to enrollment among community college students. The AMS (Vallerand et al., 1992) tool has not been used previously in a sample of community college students, or to explore the relationships between gender, age at time of enrollment, and familial level of education attained in regards to academic motivation.

Students enrolling in post-secondary education have a variety of options to choose from including deciding on 4-year institutions or community colleges. Some factors that may draw enrollment to a community college may be the lower cost, the attention given to less academically prepared students, flexibility in course schedules, and delivery of courses with a focus on occupational and technical skills. The present study demonstrated that students who enroll in an urban community college are extrinsically motivated. In other words, they are motivated to attend college in order to obtain some type of external reward, particularly one that they perceive as important to them, whether that is gaining specific job skills, higher pay in their job, obtaining a degree, or other external motivational factors.

Minimal research has previously been conducted on the motivational factors that influence specific groups of students to enroll in a community college. Community colleges must attract and initiate new and creative ways to enroll and retain students. This study provided specific information as to what motivated a sample of students presently enrolled in a community college. Understanding the factors that influence enrollment can help universities attract and retain students in an increasingly competitive marketplace. Because community college students appear to be extrinsically motivated, community colleges are likely to benefit from promoting more of the external rewards associated with attendance and degree completion, such as relationships with employers, in order to attract potential students and encourage those currently enrolled to succeed academically.

Specifically, a large portion of community college students tend to be non-traditional students (i.e., first-generation students and/or older students). There has been a lack of research on what factors motivate nontraditional students to attend community college. The findings suggest that extrinsic motivational factors may be less important for first-generation college students and the community college may need to develop ways in which to increase enrollment and retention rates for this population. Literature about nontraditional students, particularly adult students, emphasized the importance of education that offers relevancy of education to one's life, accommodates individual circumstances, and supports continuing education in one's chosen areas (Clark, 2012).

4. Recommendations for Future Research

The present research may be expanded on in several different areas in the future. For reliability purposes, it would be useful to replicate the present study on a different population of community college students. This would serve the purpose of verifying whether extrinsic motivation is more influential in the general population of community college students. For example, a similar study could be conducted with rural community college students in a different part of the country. As mentioned previously, the motivational factors that affect students' community college enrollment in urban and rural environments may differ considerably.

Another research avenue may focus on the effects of extrinsic motivation on not just community college enrollment, but rather on retention. One potential study might be to compare students with high extrinsic (or intrinsic) motivation to those with lower extrinsic motivation on measures of academic success, such as graduation rates or cumulative GPAs after one and/or 2 years in a community college. Similarly, future research might investigate whether the different motivational factors effect students with various subject area interests or different majors (e.g., vocational focused versus students who intend to continue on to a 4-year degree).

Finally, the differences in extrinsic motivation between first-generation students and students who have had family members attend college warrants further investigation. Many of the students who enroll in community college may be considered non-traditional students, including first-generation students. Therefore, it is extremely important to understand the motivational factors that influence not just community college enrollment, but also retention, for these types of students. The present study serves as a solid foundation for future research in this area.

5. Conclusions

This study sought to explore the academic motivation of students enrolled in community college. The AMS-C

(Vallerand et al., 1992) was used to investigate motivational factors of community college enrollment along a continuum from amotivation, to intrinsic, to extrinsic motivation. It also sought to examine differences in academic motivation by student gender, age at time of enrollment, and familial level of education attainment. It was determined that, for the sample as a whole, the most influential motivational factors were external regulation and identification, both within the extrinsic motivational spectrum. This finding reveals that enrollment in a community college is most influenced by extrinsic motivations, that is, external rewards and factors (that are important to an individual). This finding highlights the importance of demonstrating to potential students the rewards and possible achievements associated with community college enrollment. Similarly, community college students who had a family member attend college had higher levels of external regulation than first-generation college students. Again, this may be, at least in part, due to their familiarity with the college system and potential rewards.

Furthermore, gender differences were in identification extrinsic motivation such that females were more likely to internalize external motivations. Marketing initiatives of the community college should be mindful of the identified motivational factors as a way to increase enrollment and retention efforts. Thus, in demonstrating the possible external rewards associated with community college enrollment, it might be even more important to emphasize to potential female students how those external rewards relate to them specifically, as they are more likely to internalize external motivational factors.

This study provided specific information as to what motivated a sample of students presently enrolled in a community college. Understanding the factors that influence enrollment can help universities attract and retain students in an increasingly competitive marketplace.

Acknowledgments

Patrice Morgan, Ed.D, is a professor in the Education Program at Kingsborough Community College located in Brooklyn, NY. Dr. Morgan is passionate about how to engage and motivate students. She is involved with many campus-wide committees including serving as a member of the Civic Engagement Advisory Group. Before joining Kingsborough's faculty in 2010, Patrice was a Principal of a NYC Charter School and prior to that she taught in the elementary grades for over 10 years.

References

- Agresti, A. (2013). *Categorical data analysis*. Hoboken, NJ: Wiley-Blackwell.
- American Association of Community Colleges; AACC. (2017). *College Costs in Context: A State-by-State Look at College (UN) Affordability*.
- Bandura, A. (2006). *Social foundations of thought and action: A social cognitive theory* (Vol. 8). Englewood Cliffs, NJ: Prentice-Hall.
- Bergerson, A. (2009). *College choice and access to college: Moving policies, research and practice to the 21st century*. San Francisco, CA: Jossey-Bass.
- City University of New York (CUNY) Office of Institutional Research and Assessment. (2017). Retrieved from <http://www2.cuny.edu/about/administration/offices/oira/institutional/>
- Clark, L. (2012). When nontraditional is traditional: A faculty dialogue with graduating community college students about persistence. *Community College Journal of Research and Practice*, 36, 511–519. <https://doi.org/10.1080/10668926.2012.664090>
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155–159. <https://doi.org/10.1037/0033-2909.112.1.155>
- Conger, D., & Long, M. C. (2010). Why are men falling behind? Gender gaps in college performance and persistence. *Annals*, 627, 184–216. <https://doi.org/10.1177/0002716209348751>
- Cross, K. P. (2001). *Motivation: Er ... will that be on the test?* (The Cross Papers No. 5). Chandler, AZ: League for Innovation in Community College.
- Engle, J. (2007). Postsecondary access and success for first-generation college students. *American Academic*, 3(1), 25–48.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175–191. <https://doi.org/10.3758/BF03193146>
- Ferguson, C. F. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology*:

- Research and Practice*, 40, 532–538. <https://doi.org/10.1037/a0015808>
- Field, A. P. (2013). *Discovering statistics using SPSS* (4th ed.). Thousand Oaks, CA: Sage.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory*. New York, NY: McGraw-Hill.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development and well-being. *American Psychologist*, 55, 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Smith, A. A. (2015, November 10). *Who's in first* (generation)? Inside Higher Ed. Retrieved from <https://www.insidehighered.com/>
- Snyder, T. D., Dillow, S. A., & Hoffman, C. M. (2008, March). *Digest of education statistics 2007* (NCES Publication No. 2008-022). Retrieved from National Center for Education Statistics website <https://nces.ed.gov/pubs2008/2008022.pdf>
- Strayhorn, T. L. (2007). Factors influencing the academic achievement of first-generation college students. *Journal of Student Affairs Research and Practice*, 43, 1278–1307. <https://doi.org/10.2202/1949-6605.1724>
- Vacha-Haase, T. (2001). Statistical significance should not be considered one of life's guarantees: Effect sizes are needed. *Educational and Psychological Measurement*, 61(2) 219–224. <https://doi.org/10.1177/00131640121971194>
- Vallerand, R. J., Blais, M. R., Brière, N. M., & Pelletier, L. G. (1989). Construction et validation de l'Échelle de Motivation en Éducation (EME). *Canadian Journal of Behavioral Science*, 21, 323–349. <https://doi.org/10.1037/h0079855>
- Vallerand, R. J., & Blissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality*, 60, 599–620. <https://doi.org/10.1111/j.1467-6494.1992.tb00922.x>
- Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C. B., & Vallieres, E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52, 1003–1017. <https://doi.org/10.1177/0013164492052004025>
- Wiersma, W., & Jurs, S. G. (2009). *Research methods in education: An introduction* (9th ed.). Boston, MA: Pearson.

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