High School Factors Predicting Enrollment in Developmental Courses

By John C. Whiton, Vasuki Rethinam, and Michael D. Preuss

ABSTRACT: ***This study examines the relationship between specific high school factors and students' enrollment in a developmental course. Since there is a dearth of research linking high school factors and developmental course enrollment, the theoretical constructs (human, cultural, and social factors) for this study were taken from another study of factors that impact postsecondary enrollment. The study sample consisted of first-time students enrolled at a community college. Data were collected using a survey. Logistic regression analysis indicated three predictors significantly related to the outcome: a cultural capital variable; highest math level in high school; and household income. Implications for practice are discussed.***

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Although not every high school student plans to attend college, college readiness today is almost the same as career readiness, because most of the fastest growing jobs require at least a high school diploma. These jobs require knowledge and skills, often technical skills, comparable to those expected of a first-year college student (ACT, 2008). In order to prepare high school graduates to be college ready, there has been a national movement to ensure there are rigorous standards for curriculum, support for high school graduation, and assessments aligned to college readiness and career success (Conger & Tell, 2007; Paulson, 2010).

Despite this movement, of the two-thirds of high school graduates that enter college each year nationwide, a large proportion of students (66%) enter underprepared academically for college-level work (Greene & Forster, 2003; Radford & Horn, 2012). These underprepared students are typically channeled into developmental courses based on placement tests at postsecondary institutions (Parsad, Lewis, & Greene, 2003). Although what constitutes a developmental course is determined locally, it is common for courses of this type to contain content studied in high school that college freshmen have not mastered. Developmental courses are most frequently offered in reading, writing, and mathematics, and require payment of tuition as non–credit-bearing study (Oudenhaven, 2002).

Students who enroll in a two-year college, especially in a developmental course, are at a greater risk of academic failure than students enrolling in four-year institutions or a nondevelopmental course (Adelman, 2006). These students are more likely to dropout and/or delay obtaining a degree compared with college students who do not enroll in a developmental course (Adelman, 2006; Bailey, Jeong, & Cho, 2010). This delay and dropout pattern has a discernable economic impact for the students and society (Schneider & Yin, 2011). Though remediation is a problem for students of all races/ethnicities, it is more prevalent among minority and low-income students who are consistently overrepresented in developmental courses (ACT, 2004; Attewell, Lavin, Domina, & Levey, 2006; Bahr, 2010).

Though there has been emphasis on how high schools should prepare students to be college ready (Boser & Burd, 2009), there have been only a few peer-reviewed studies examining the impact of high school factors (usually including high school courses, course rigor, and high school grades) on college remediation (Hoyt & Sorensen, 2001). These studies focused only on human capital resources and did not consider students' social and cultural resources which are defined following.

Engberg and Wolniak's (2010) study examined the impact of high school students' human, cultural, and social capital on enrollment, using two- or four-year college as an outcome variable. The researchers defined human capital as the skills and knowledge required for academic preparation, demonstrated by the ability to produce an appropriate return from effort expended. Cultural capital referred to language skills, cultural knowledge, and social skills acquired through interaction with family and friends. Social capital represented resources available to individuals through their social network. Engberg and Wolniak found variables in the realms of human, cultural, and social capital that were significant predictors of enrollment in a two-year college.

Other researchers who have applied the theoretical framework of "capital" to higher education indicate that a lack of such capital can be a significant risk factor with respect to degree attainment, especially for low-income and first generation college students (Engle, 2007; Wells, 2008). Since Engberg and Wolniak (2010) found elements of capital to predict enrollment patterns, and other researchers have found associations with degree completion patterns, this study was

undertaken to determine if the variables found to predict community college enrollment were also associated with developmental course enrollment at a two-year institution.

Literature Review

There is a paucity of peer-reviewed literature linking high school factors and developmental course enrollment at community colleges. Because there is little research on high school factors that influence college remediation (Hoyt & Sorensen, 2001; Long, Iatarola, & Conger, 2009; Lang, 2012), the literature most relevant to this study examines which high school factors influenced college readiness and postsecondary enrollment.

Academic Preparation in High School

Studies indicate that academic preparation in high school is a key influence on postsecondary outcomes. Hoyt and Sorensen (2001) found that students' high school careers predicted their need for developmental education in college. Students who earned higher grades (C- or better) and took higher level English (Grade 12 or AP English) and math (above Algebra 2) in high school were less likely to need developmental education. Long et al. (2009) examined data of students in Florida's public postsecondary institutions and found that courses taken in high school contributed significantly to college readiness, with the biggest gains occurring for students who completed Algebra 2.

Similarly, Fong, Huang, and Goel (2008) examined the association between Nevada public high school students' mathematics course completion and developmental mathematics enrollment in Nevada's public colleges and universities. Students who retained higher grade point averages in their math courses and completed advanced math courses (e.g., trigonometry, precalculus, and calculus) in high school had lower rates of remediation. Lang (2012) studied the connection between secondary math preparation and college freshmen enrollment in developmental math coursework. His findings indicated that course grades and course-level attainment impacted whether students took developmental math. Students who enrolled in a precalculus or calculus course in high school were 77.0% less likely to take developmental math in a two-year college.

High School Grade Point Average

Several studies identified high school grade point average (GPA) as a positive predictor of future academic success. Engberg and Wolniak (2010) found that final high school GPA was positively related to college enrollment. Data gathered by ACT indicates high school GPA not only predicts future academic performance but also can be used to identify students who are at high risk of experiencing academic difficulty (ACT, 2008). Rethinam (2011) examined the relationship between student-level Grade 9 academic variables and college readiness outcomes (attainment of a C or higher in Algebra 2 by Grade 11, attainment of an Advanced Placement exam score of 3 or higher or an International Baccalaureate exam score of 4 or higher, and attainment of an SAT combined score of 1650 or higher or an ACT score of 24 or higher). The findings indicate that Grade 9 GPA and passing Algebra 1 with a C or higher by Grade 8 increased the likelihood of college readiness.

Cultural and Social Capital

Cultural capital refers to attributes such as language skills, cultural knowledge, and mannerisms that are acquired in part from parents (Bourdieu, 1986). Social capital can be built through students' relationship with their parents and relationships with other adults (Dika & Singh, 2002). According to McNeal (1999), social and cultural capitals are related and can have some overlap.

Cultural background can influence patterns of support students receive at home. Hispanic students from immigrant families can have difficulty getting help with their homework because there might not be an English speaker at home to offer assistance (Suárez-Orozco & Suárez-Orozco, 2009). Students also learn about the importance of academic preparation in high school through the values and lessons taught to them by their families and friends. For example, college-educated parents are more likely to have the knowledge necessary to guide their children to be academically prepared for college (Klasik, 2012). Yet, studies indicate that access to accurate and timely information about preparing for, attending, and paying for higher education is not uniformly available across all student groups (Perna, 2006). The lack of cultural and social capital resources for some student groups contrasts with students from higher socioeconomic ranks and affluent households; often at least one parent from families with higher socioeconomic status is college educated and, thus, will have personal experience with the alternatives available and which option represents a wise choice (Walpole, 2008). These resources include knowledge of strategies, understandings of specialized language (e.g., FAFSA, registrar, scholarship), and familiarity with college culture.

Size and strength of the social network have been found to influence the likelihood of enrolling in a two-year college.

Person and Rosenbaum (2006) have analyzed enrollment patterns and found that established networks of social contacts are important in acquiring information about college for Latino students. However, there is also an information gap that serves as an obstacle for these students in obtaining access to and success in college as many of them are first-generation college students. In fact, Perez and McDonough (2008) argue that access to strong networks and social capital provides greater exposure to ranges of college options and that social networks that are limited in scope can reduce a student's post-secondary options.

The literature notes that both positive and negative associations exist between capital resources, college choice, college preparation, and college success. These variables were considered in the current study with the assumption that they might also apply to developmental course enrollment.

Theoretical Framework

This study used human, social, and cultural capital theory as represented in Engberg and Wolniak's (2010) work as a framework. Human capital was defined as academic preparation portrayed by gaining skills, knowledge, and experience. This definition was considered appropriate as Perna and Titus (2005) found that academic preparation was a strong significant predictor of college enrollment. Hoyt and Sorensen (2001) and Long et al. (2009) found students who had a higher level of academic achievement in high school were less likely to enroll in developmental courses in community colleges.

Cultural capital is most commonly seen as an individual's familiarity with cultural knowledge, language skills, and behaviors being acquired largely through interaction with family and friends (Bourdieu, 1986; Engberg & Wolniak, 2010). For example, studies have suggested that community college students whose primary spoken language is not English may face additional barriers to remain enrolled in college due, in part, to a lack of relevant cultural understanding (Hawley & Harris, 2005).

Social capital was defined in the study, based on Bourdieu (1986), as resources available through social networks. This concept clearly had relevance to the study focus: Size and strength of the social network have been found to influence the likelihood of enrolling in a two-year college (Engberg & Wolniak, 2010).

Human, cultural, and social capital were found to be significant predictors of enrollment in a two-year college in Engberg and Wolniak's (2010) study. We believe that these same factors could influence students' enrollment in a developmental course at a community college. Therefore, the current study utilized the significant predictors found in Engberg and Wolniak's study to examine the

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following research question: What student-level factors during high school best predicted whether first-year community college students would enroll in a developmental course?

Method

Setting and Participants

The study was conducted in 2015 at a public community college campus located in the mid-Atlantic region of the United States. Almost 90% of the students enrolled at this community college were graduates of the large, local public school district. The convenience sample was drawn from the total population of 3,186 first-time enrollees and consisted of 327 freshmen students who were enrolled in courses at the research site from fall of 2012 to spring of 2015.

Of the 327 freshmen students who participated, 57% of them were enrolled in one or more developmental courses, and 43% were enrolled in only credit bearing college-level courses. The sample consisted of 21% White, 22% Black/African-American, 40% Hispanic or Latino/Latina, and 11% Asian students. The remainder of 6% was students who reported a combination of races (multirace) or American Indian, Alaska Native, Native Hawaiian, or Other Pacific Islander. The frequency of non-native English speakers in the sample was 43.1%.

Instrumentation

This study utilized predictors—selected from Engberg and Wolniak (2010)—that examined the relationship between students' high school experiences and their postsecondary enrollment in two- or four-year institutions. Predictors that were significant for two-year college enrollment in Engberg and Wolniak's work were used for the current study: race/ethnicity, socioeconomic status, final high school GPA, highest level of high school math, college-seeking efforts, family/friends network, and native English speaking. Because Engberg and Wolniak used secondary data from the Educational Longitudinal Study (ELS) of 2002 (NCES, 2004), the current study also used the items from the ELS study. In addition to these items, the survey included self-report questions about enrollment status (at least one developmental course vs. credit bearing only course or the outcome variable), the year of graduation from high school, and whether the student was enrolled as a first-year student in the community college. Students who graduated high school within 3 years and were in their first year at the community college were included in the study.

The survey items consisted of human capital, cultural capital, social capital, and demographics. The current study's operational definition of human capital is the highest level of math course completed during high school and final high school GPA (Adelman, 2006; Engberg & Wolniak, 2010; Long et al., 2009). Cultural capital is defined as whether students spoke English as their native language and discussion of events with parents/guardians, with social capital defined specifically as discussing college entrance requirements with family and friends and discussing going to college with parents/guardians. The variables used for this study are presented in Table 1.

The race/ethnicity variable was recoded to form three variables: Hispanic, Asian, and Black. White was the reference group. Math level was recoded to form two variables: "below Algebra 2," which included prealgebra, algebra 1, and Geometry; and "above algebra 2," which included trigonometry, precalculus, and calculus. Algebra 2 was the reference group. At the local school district from which most of these students graduated, the math sequence was algebra, geometry, algebra 2, trigonometry, pre-calculus, and calculus.

The binary logistic regression statistical technique, which examines the relationship between a set of predictor variables and the criterion variable,

Table 1

Variables on the Self-Report Survey

Variables	Values
Dependent Variable	
Developmental course enrollment	1=enrolled in at least one developmental course; 0= enrolled in credit bearing course/s only
Independent Predictor Variables	
Demographics	
Race/ethnicity	Reference group: White
Asian	1=Asian; 0=Not
Black/African American	1=Black/African American; 0=Not
Hispanic	1=Hispanic/Latino; 0=Not
Household income	Reference group: $35,001-$50,000
Household income below $35,001	1=Yes; 0=No
Household income above $50,000	1=Yes; 0=No
Human Capital	
Final High School GPA	Continuous range, possible 1.25 to 4.00
Math Level	Reference group: Algebra 2
Highest math level below Algebra 2	1=Yes; 0=No
Highest math level above Algebra 2	1=Yes; 0=No
Cultural Capital	
Native English language	1=Yes; 0=No
Discussed events with parents/guardian	Reference group: "Discussed Sometimes"
Often discussed events with parents/guardian	1=Yes; 0=No
Never discussed events with parents/guardian	1=Yes; 0=No
Social Capital	
Discussed college entrance requirements	1=Yes; 0=No
Discussed going to college with parents/guardians	Reference group: "Discussed Often"
Never/sometimes discussed going to college with parents/guardian	1=Yes; 0=No

has validity threat controls built into the design (Pedhazur & Schmelkin, 1991). Therefore, the variables used have predictive validity because they were found to be significant predictors of two-year college enrollment in Engberg and Wolniak's (2010) study, which also employed binary logistic regression.

Data Sources and Procedure

Data were collected over 5 weeks during Spring 2015. The primary researcher visited about 18 classrooms at this community college and requested instructors' permission to administer a paper survey to the students. The students were informed by the researcher that the survey responses were anonymous and voluntary. Classrooms visited included a balanced mix of developmental math, developmental English, credit-bearing math and English courses, and a few other liberal arts courses. Students in a credit bearing English course, for example, might have been also taking developmental math. The surveys were administered and collected at the beginning of each class' session, and the process usually took no more than 10-15 minutes to complete.

Data Analysis

Data were entered into an Excel® spreadsheet. After the data collection phase, data were screened to include cases that met criteria for participation. All statistical data processing was conducted using IBM's Statistical Package for the Social Sciences software (SPSS®). A binary logistic regression analysis was conducted to address the research question. The predictor variables were tested for intercorrelation to avoid multicollinearity. Variance inflation factors of less than 1.7 computed for the predictor variables indicated they were statistically independent (Kutner, Nachtsheim, & Neter, 2004; Whiton, 2015).

The results of the logistic regression analysis are reported in terms of odds ratios (OR), the percentage change in odds relative to a reference group. An OR was calculated for each predictor variable. The OR for each predictor variable was reported in percentages for interpretation (Chan, 2004).

Results

Significant Predictors

Thirteen predictor variables were entered into the logistic regression simultaneously. Three variables were statistically significant predictors of developmental course enrollment. Table 2 displays the results of the logistic regression analysis. The Wald estimates provide the strength of the contribution of each variable, with higher relative values indicating more predictive strength between the variable and the outcome. Of the three significant predictors, "above Algebra 2" had the most predictive strength, followed by "annual family income above $50,000," then "discuss community, national, and world events with parents/guardian often."

A most noteworthy finding was the importance of the cultural capital. The students who often discussed community, national, and world events with parents/guardians while in high school were 51.0% less likely to enroll in a developmental course compared with students who discussed these events only sometimes. Students who completed a math course above Algebra 2 were 74.0% less likely to enroll in a developmental course compared to students who reported their highest math level as Algebra 2. Students who reported that their annual family income in the final year of high school was above $50,000 were 68.0% less likely to enroll in a developmental course, compared to students whose annual family income was between $35,001 and $50,000.

The pseudo-*R*-squared statistic showed that slightly more than 22% of the variance in the outcome variable (developmental course enrollment) was explained by the three variables found to have predictive relationships. The combination of the three variables was found to have an adequate fit because the chi-squared goodness-of-fit was not significant (Archer & Lemeshow, 2006). The overall accuracy of three variables to predict enrollment

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in a developmental course, when considered as a group, was 68%. The statistically significant findings from the study are correlational and do not indicate causation.

Table 2

Predicting Enrollment in a Developmental Course in a Community College

Names of Predictors	*B*	*SE*	Wald	(B),Odds Ratio	% Change in Odds[a]
Final High School GPA	0.04	0.27	0.03	1.04	--
Native English Language	0.15	0.31	0.22	1.16	--
Discussed College Entrance Requirements	0.31	0.35	0.81	1.37	--
Hispanic or Latino/Latina	0.46	0.37	1.56	1.58	--
Asian	0.24	0.50	0.24	1.28	--
Black or African American	0.11	0.39	0.08	1.12	--
Household Income Below $35,001	-0.56	0.35	2.52	0.57	--
Household Income Above $50,000	-1.14	0.37	9.36	0.32*	-68.0
Highest Math Below Algebra 2	-0.17	0.42	0.16	0.84	--
Highest Math Above Algebra 2	-1.33	0.30	20.31	0.26*	-74.0
Never Discussed Events	-0.48	0.43	1.24	0.62	--
Often Discussed Events	-0.71	0.32	4.83	0.49*	-51.0
Never/sometimes Discussed College	-0.01	0.27	0.00	0.99	--
Constant	0.96	1.04	0.84	2.61	--

Notes. **Degree of freedom equals 1 for each variable and the constant.**
[a]Percent change in odds = (Exp(B))-1 * 100. (Chan, 2004).
***p < .05.-- indicates no significance.**

Discussion

The study findings revealed three significant factors that influenced students' enrollment in a developmental course at a community college. An important finding was the influence of whether or not the student "often discussed community, national, and world events with parents/guardians," which is a form of cultural capital. This type of discussion can be seen as a proxy for family engagement in the child's school-related activities. Several research studies have examined the relationship between parental involvement and students' academic outcomes, behavior, motivation, and engagement (Domina, 2005; Fan & Williams, 2010; Jeynes, 2005); however, these studies focus mostly on elementary school level outcomes, and there is less research evidence regarding the effects of parental involvement on secondary school-level outcomes.

Ross et al. (2012) examined the relationship between a number of variables and immediate postsecondary enrollment after high school. The variables included GPA, mathematics achievement, school absenteeism, participating in high school sports and extracurricular activities, discussing course work with parents, and having close friends who dropped out of school. Controlling for student and family background variables, they found that students who often discussed school courses with their parents had 44% higher odds of enrolling in postsecondary education immediately after high school compared to those who did not have such discussions. The similarity in findings from these studies supports the notion that advantageous outcomes develop from a combination of elements present in the act of inter-generational discussion of world and national events.

Another significant predictor was students' self-report of their family's annual income during their final year of high school. Students whose annual family income was $50,000 or higher were 68.0% less likely to enroll in a developmental course at a community college. This finding is consistent with studies indicating that students who are from low-income families are more likely to need remediation in college (Long et al., 2009). It is likely that parents in a low-income category might not have the educational, cultural, or social resources (such as English language skills) and a social network to advocate for or advise their children on how to approach, prepare for, and succeed in postsecondary education. These parents can be working at two jobs each to make financial ends meet (Mena, 2011) and likely would not have the time to attend parent meetings with teachers or counselors while their children were in secondary school. Also, these parents might not feel comfortable seeking assistance and information from their children's teachers, counselors, tutors, or other school staff or administrators due to language or cultural barriers (Quezada, Diaz, & Sanchez, 2003). Additionally, some such parents could feel uncomfortable in the school environment due to their own negative experiences with the education system.

However, parents who are highly educated, have ample cultural resources, and who are at a higher socioeconomic status can also be too busy with their career or social calendar to influence their children regarding education. Considering this perspective with the finding of our study, it is reasonable to deduce that parental access to the knowledge along with the ability and willingness to impart it to their students work in tandem. If financial attainment reduces sharing with students, it may be problematic, and parental education, and income might not matter much (which is not the focus of this research).

A third significant predictor of students' enrollment in a developmental education course was that students who completed a math course above Algebra 2 were less likely to enroll in a developmental course in college than students who completed Algebra 2. There was no significant difference in

enrollment in a developmental course between students who took below Algebra 2 compared to those who took Algebra 2. This finding is consistent with prior research which examined the relationship between high school math level and developmental course enrollment (Fong et al., 2008; Hoyt & Sorensen, 2001; Lang, 2012). A recent study (Lang, 2012) examined the connection between math preparation at the secondary level and enrollment of freshmen in a developmental math course in a community college. The findings revealed that students whose high school math was precalculus or calculus were 77% less likely to enroll in a developmental math course at a community college. This is consistent with the current finding that students who completed a math course above Algebra 2 in high school were 74.0% less likely to enroll in a developmental course. Adelman (1999) indicated the importance of taking and completing Algebra 1 early on (at least in Grade 8) so that students can enroll in a higher level math course in high school, thereby preparing students to enroll in college-level courses.

Unlike other core courses, mathematics follows a sequential series of content with escalating rigor and requirements that builds scaffolded knowledge. To advance in math, students must build on understandings of prior concepts (Spielhagen, 2006a). Therefore, the earlier in secondary education that students complete a course in algebra, the more time they have to enroll in advanced math courses in preparation for college (Spielhagen, 2006b).

Algebra represents students' first, sustained exposure to the abstraction and symbolism that makes mathematics a powerful problem solving tool (Spielhagen, 2006a). The symbols, terminology, rules, and operations used in algebra enable students to consider order and structural relationships between items in sets and systems, quantities that are variable, and orderly situations in which controlled change occurs (Spielhagen, 2006b). As a result, algebra involves developing and using higher order cognitive skills, choosing a clear, sensible, and systematic strategy to approach quantitative problems, taking a comprehensive view of math expressions, distinguishing between relevant and less relevant properties, and interpreting results in a meaningful manner (Arcavi, 2005).

Algebra education not only helps prepare students for concepts in subsequent courses like physics, chemistry, and engineering but also helps students in their higher education courses even if they rarely come into contact with mathematics in their future education or profession. Algebraic concepts like infinite change and calculus provide the gateway to mathematics (Drijvers, Goddijn,& Kindt, 2010). For example, Roth, Crans, Carter, Ariet, and Resnick's (2000) study examining the effect of high school course taking and grades on passing a college placement test (CPT) has indicated that students' math course performance in high school had a larger effect than GPA on the probability of passing the Math CPT test. Roth et al. have also noted that taking a challenging, rigorous math course, even at the risk of lowering GPA, would benefit most students' readiness for college or a career.

Limitations

This study's research variables were limited to the items that were significant in Engberg and Wolniak's (2010) study. Other variables not investigated in the current study such as student motivation, self-efficacy, persistence, writing skills, high school physical resources, counseling and tutoring, quality of peer networks, and interaction of factors, may have contributed to explaining variance in outcomes.

The data collected represent students from one of the three campuses of the community college, thus limiting the breadth of the sample and the generalizability of findings to other campuses or other community colleges. Another limitation is the use of self-reported rather than institutional or verified data (Kuncel, Crede, & Thomas, 2005). The accuracy of self-reported information, relying as it does on memory and recall, has its limitations.

This study identified three significant factors that influenced students' enrollment in developmental courses.

Implications for Practice and Future Research

The findings from this study have important implications for school counselors and parents. A cultural capital variable, "often discussing community, national, and world events with either or both parents or guardians" was a significant predictor. This can be seen as a proxy for parent-child relationships involving interactions and engagement through open communication. Schools can assist parents in enhancing their daily communication with their children with awareness programs. Family-community partnership offices at school districts can provide necessary resources to target parents in the underserved population and build new and novel programs to inform parents or guardians on effective modes of communication with their school-aged children. Should parents and guardians prove unable or unwilling to communicate with their children in these ways, out of school programming and supplemental support structures could be investigated as means of making up a deficit.

Another implication for school staff is with respect to student course placement, especially math trajectory during elementary and secondary schooling. Because math courses are sequential, particular attention should be paid to students' math skills beginning in elementary grades so that students are prepared for and successfully complete higher level math courses in secondary school. School staff can provide the necessary intervention and support early on for students struggling in math, thereby helping prepare them to enroll in higher level math courses in high school (Porchea, Allen, Robbins, & Phelps, 2010). They can also guide students, including low-income students, to after-school math programs and other opportunities that are available to these students.

It is beyond the ability of school personnel to influence and address the income of families sending students to school. However, understanding that students from higher earning families are less likely to need developmental education in college should spur reflection and research. A clear understanding of why students from wealthier backgrounds are less likely to be in developmental education and how any enrichment activities and programs that influence this situation function increases the potential to better focus programs and improve their impact.

Future research should examine the interaction between socioeconomic status (parental education and income) and cultural capital factors on students' enrollment in a developmental course at a community college. Since the current study utilized only predictors that were significant for two-year college enrollment in Engberg and Wolniak's study (2010), future research should explore other cultural variables that might influence enrollment in developmental course.

Conclusion

Some of the variables that were found to predict community college enrollment were also associated with developmental course enrollment at a two-year institution. This study identified three significant factors that influenced students' enrollment in developmental courses in community college: students' highest math level taken in high school, family income, and students' often discussing community events with parents or guardians.

The community college research site and the local public school system in the district have a memorandum of understanding (MOU), with a major goal of collaboration to ensure a seamless transition from high school to college to workplace. The MOU supports and enables data sharing, analyses, and reporting among the two organizations to help prepare students while they are in high school and support them as they enter community college. The findings of this study can be used locally and can

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also provide high schools in other areas with ideas to better support students' preparation, transition, and success upon college entry.

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