

Writing Proficiency and Student Placement in Community College Composition Courses

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Despite national efforts to accelerate students through precollegiate writing course sequences to transfer-level composition, questions persist regarding appropriate placement and the support needed for students to succeed. An analytical text-based writing assessment was administered to students across four levels of composition courses at a California community college. Differences in student writing scores between course levels and the relationship between writing score, course level, and high school GPA were examined. Key findings include (1) significant differences in average scores between the first precollegiate course and other courses in the sequence and (2) weak relationships between course level and high school GPA and assessment scores and high school GPA.

Writing has long been defined as a “central academic process” (Emig 127). It is closely tethered to thinking and learning and is intricately intertwined with the aims of research, education, and scholarship. For these reasons, writing courses are a gateway to college success in both their content and context. In their content, they are crucial to students’ academic achievement (Kassner and Wardle; Troia; Emig) since they are the place where students learn to participate as members of academic discourse communities and are able to develop the advanced literacy skills needed to thrive in other courses across the disciplines (Duff; Hassel and Giordano). These courses are also situated contextually in institutions in a way that affects overall academic success; they are often prerequisites for courses in other disciplines. Although community colleges are open access institutions, welcoming all who choose to attend, unless a student can take and pass the transfer-level English class, forward movement at the college can be impeded. As such, these courses function as gateways to full college participation. Furthermore, they are required for attainment of the associate degree and transfer to four-year colleges.

Despite the importance of passing the transfer-level English course, less than half (44%) of students who start out in precollegiate writing courses in community colleges accomplish this goal (Mejia et al.). At some institutions, the transfer-level course is preceded by as many as four precollegiate courses. For students who are placed into the lower-level writing courses, this can translate to at least a year of coursework before entry into the transfer-level class and even longer if enrollment

in the subsequent course is unavailable. Furthermore, investigations reveal that the lower students place in these precollegiate course sequences, the less likely they are to persist to transfer-level courses and go on to attain a degree (Dominick et al.).

Widespread reform is currently underway across the country with initiatives in several states to improve the persistence and completion rates of community college students. Reform efforts have taken many forms, including a movement to minimize or to even eliminate precollegiate course sequences; movement away from standardized tests as mechanisms for course placement; movement toward directed self-placement of students into courses using high school records and GPA; and GPA cutoffs aimed to place students directly into college-level composition courses with co-requisite support courses as needed (Hassel and Giordano).

In California, where community colleges constitute the largest system of higher education in the nation, serving 2.1 million students (“Welcome”), recently passed legislation will rapidly and drastically expand the scope of reform throughout the state’s 114 institutions. Assembly Bill 705, which resulted from a lawsuit over the disproportionate placement of Latino students into precollegiate courses (“AACC”), mandates that specific reform be implemented statewide by the fall of 2019. The new law decrees a shift in the methods for placement of students into courses, eliminating the use of standardized tests and moving to the use of high school records, including courses taken, grades, and GPAs (Rodriguez et al.). Colleges will be required to make placement recommendations to students that ensure “optimized opportunities” for students to complete transfer-level coursework within a year and will not be allowed to place students into precollegiate courses unless they are “highly unlikely to succeed without them” (Hope 1).

In the face of such changes, questions persist about appropriate student placement and the type of support needed for both students in the initial college-level composition courses and the faculty that teach them. In order to avoid overly broad

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solutions that can marginalize some students and overwhelm faculty, additional insight is needed about how structural changes affect student progress and what the criteria should be for deciding which students need more support.

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In the interest of knowing if the placement process at the college in this study, which results in students placed into four distinct levels of composition courses, is justified, we ask: *How do students placed in four levels of composition courses differ in their academic writing performance on an analytical, text-based essay?* Furthermore, to examine whether high school GPA is a good indicator of student placement level or student

writing proficiency, we ask: *What relationship is there, if any, between students' course level, their academic writing performance, and their high school GPA?* This information can help clarify the often “blurry” border between college-ready and underprepared students (Hassel and Giordano 58) and inform appropriate placement under differing placement policies.

Community Colleges: A Unique Postsecondary Educational Option

Community colleges are home to more than half of the nation's undergraduates each year (Bailey). In both their history and mission, these institutions uphold an “open access” policy, welcoming all who seek to further their education and training. In so doing, they are an attractive educational option; they forego the sometimes-stringent admissions requirements of four-year institutions and provide educational opportunity that is affordable (about a third of the cost of four-year institutions), local, and offered at flexible hours, enabling students to maintain their job schedules. Thus, they appeal to students from a wide range of backgrounds who attend for a variety of reasons, including academic goals such as attainment of the associate degree or transfer to a university, and career and technical certification. However, this all-encompassing acceptance policy gives rise to challenges, the most pressing of which is the need to uphold college-level academic standards while serving a broadly diverse student body (Hassel and Giordano).

Institutional Challenges and Reform

Recent research shows that most students in community colleges across the nation are considered underprepared and are placed into developmental or precollegiate courses in writing and math (Bailey and Jaggars). This is increasingly so since many four-year institutions are eliminating precollegiate coursework and assigning the responsibility exclusively to community colleges (Perin). Moreover, studies show that most students who enroll in precollegiate courses do not persist to transfer-level work, and fewer than 40 percent of these undergraduates will complete a degree within six years, despite the stated aims of most to earn a bachelor's degree or above (Barnett and Reddy; Bailey and Jaggars; Mejia et al.; Hern and Snell; Burdman; Bueschel). However, lack of skill or preparation is not the only explanation for the problem; there is a growing consensus based on empirical research that lengthy precollegiate course sequences hinder student progress toward degree completion and that standardized placement tests can seriously misplace students. This has resulted in a widespread movement

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away from the use of standardized exams for placement and an effort to minimize, or to even altogether eliminate, precollegiate course sequences with the aim to place students directly into transfer-level composition courses (Hassel and Giordano). As such changes take place, consideration of the history of precollegiate coursework, or developmental education, is important in understanding the current presence of such courses in the landscape of two-year postsecondary institutions.

Developmental Education: Origins and Controversy

Designed to prepare students for college-level work, developmental education is not a recently established idea. Underprepared students have been served in American higher education institutions since their inception (Cafarella; Brier). It was not until the early 1980s, however, that the field was recognized as its own discipline; it began to be included in national research, established a professional journal, and even initiated doctoral programs (Carafella). Students served by developmental education are a diverse population that includes first-generation college students, people of color, speakers of more than one language, refugees and immigrants, older learners, former members of the military, those who experienced interrupted high school educations for various reasons, and people with learning or other disabilities (Duttgupta and Miller). Although developmental education has historically provided an avenue that allowed access to postsecondary institutions to students who otherwise may not have had the opportunity to go to college, its concept has been controversial and consistently challenged by some scholars (Bahr; Bartholomae; Scott; Rose; Troyka).

Those who argue against developmental education have been motivated by various interests. Some, concerned with student equity, have contended that developmental courses help to perpetuate an unequal class system, social divisions, and institutional insularity (Bartholomae; Rose). Others express concern about the quality of education students receive and assert that developmental education contributes to fragmented education, to the marginalization of students' literacies, and to a limiting of students' abilities to grow toward intellectual autonomy (Rose; Troyka; Scott). Much of the argument is focused on the cost of the courses, reported to be between 1.9 and 2.4 billion dollars annually (Roueche and Waiwaiole). The large number of students that place into developmental courses and do not pass them results in the need for students to repeat the courses and for an increase in course offerings (Carafella). Some have argued that taxpayers are paying repeatedly for students to learn the same material since the content of developmental courses in math, reading, and English are previously covered in K–12 education (Bahr).

Proponents of developmental education have fought hard against these criticisms. Many scholars maintain that such courses are necessary and that placing students into college-level courses for which they are unprepared is not only unhelpful but also harmful (Lunsford). Others argue the issue of social justice—that basic writing courses benefit students and the academy, ensuring the inclusion of a broader range of students (Collins; Greenberg). They believe that if these courses are eliminated, the nation's institutions of higher education will return to the propaga-

tion of elitism (Greenberg). Still others highlight the need for improved funding for basic writing classes rather than a marginalization of basic writing faculty, students, and courses. They argue that the instruction of basic skills should be defined as educational enrichment rather than as remedial and advocate for students in developmental education courses to be seen as authentic members of their academic communities (Bernstein). They believe the cost of such courses is relatively small (less than 10%, and in many states less than 2%) when compared to other costs in higher education (Saxon and Boylan).

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Despite the ongoing debates, a recent shift in focus from student access to student success and completion has resulted in the generation of data that question the effectiveness of developmental or precollegiate courses (Saxon and Boylan; Arendale). Whereas success was previously defined by the number of underprepared students that were served (Carafella), the definition has shifted to include rates of course completion, the attainment of degrees and certificates, and transfer to four-year institutions. The resulting paradigm has placed greater emphasis and importance on initial placement of students into courses.

Appropriate Student Placement

Central to current reform efforts is the issue of student placement. Community college students are required to take and pass transfer-level courses in order to attain the associate degree and also for admission to four-year institutions conferring bachelor's degrees. However, the ways institutions determine college readiness and the placement of students into various course levels are some of the most "complex and crucial issues affecting access to higher education" (Hassel and Giordano 62). The determination of college readiness affects not only access but also student persistence and the likelihood of transfer and degree attainment (Dominick et al.), which can have steep economic impacts on students since unemployment rates drop and median income earnings rise with each level of increase in education ("More Education").¹ Students who do not attain at least an associate degree or a certificate will have difficulty supporting a family above the poverty line (Smith and Wertlieb).

Placement exams act as gatekeepers to college-level coursework, determining student readiness and the starting point for students within precollegiate course sequences if they are considered unready. Initial placement is a critical factor; the overplacement of students into courses for which they are not ready can lead to discouragement, failure, and the belief that college is not for them. Conversely, underplacement into courses that are not needed can result in frustration and delay in reaching educational goals. In addition, students incur the cost of the courses, which

are not applicable toward degree attainment and are often non-credit bearing, and can exhaust their limited financial aid while doing so. Both forms of misplacement are problematic and can unnecessarily complicate students' path toward achievement.

Some scholars assert that students are often defined as basic writers because of the work they do on problematic assessment measures (Hilgers). These mandated high-stakes tests "essentially lock them out of a serious education" (Duttagupta and Miller, 16). A growing body of evidence demonstrates the severe limitations of standardized placement exams; widely used tests such as ACCUPLACER and COMPASS seriously misplace students, and test scores poorly correlate with students' ultimate success in college (Scott-Clayton; Belfield and Crosta; Hassel and Giordano; Barnett and Reddy). A number of studies show that between one-third to one-half of students placed by standardized tests into precollegiate coursework would have been successful in college-level courses, and that such exams, by virtue of the information they do *not* provide, are found to be "too blunt an instrument" (Hassel and Giordano 65) to accurately identify students who need precollegiate coursework and are inadequate for distinguishing various student needs for support (Scott-Clayton; Belfield and Crosta; Barnett and Reddy).

Instead of exams, several colleges are moving in the direction of using high school GPA as a placement tool, which has been shown to be strongly associated with college GPAs and useful for predicting several facets of students' college performance (Belfield and Crosta). However, this means of placement also has limitations. Because of the difficulty of many state systems to obtain high school records in a timely manner, institutions are utilizing student self-report of high school GPA in combination with specified criteria such as the last course taken in English or math and a student's grade in that course to direct students into appropriate courses. Directed self-placement, which allows students agency in the placement process, has been found to lead to much higher enrollment rates in introductory college-level courses than standardized placement exams but can also lead to lower course pass rates (Hu et al.; Klausman et al.).

Furthermore, although high school GPA is itself a multiple measure of student performance in their high school classes, sole reliance on high school GPA for placement in composition courses may be insufficient for matching students to courses of appropriate level of writing preparation. According to the National Assessment of Educational Progress (NAEP), only 27% of students in their senior year of high school performed at or above a proficient level in writing. This statistic is not surprising given that despite an increase in time devoted to extended writing in high school classrooms over the years (from 3.8% in 1980 to 7.7% in 2011), the overall amount of writing undertaken in high schools is still meager (Applebee and Langer). Additionally, results of a national survey have raised concerns about the quality of high school writing instruction (Kiuahara et al.). The survey, administered to 361 high school teachers across disciplines, revealed that the writing activities assigned most frequently by teachers involved little analysis and interpretation, and almost half of the participating teachers did not assign at least one multiparagraph writing assignment monthly. Evidence-based practices and adaptations were used

infrequently, and most teachers did not believe their college teacher education program adequately prepared them to teach writing. For these reasons, a closer look into student writing proficiency than the more general information provided by high school records alone is needed for appropriate student placement.

At some institutions, faculty-created and -scored writing assessments are used for placement into composition courses in place of (and sometimes in addition to) standardized placement exams. Although it can be viewed by some as a high-stakes testing situation, this type of exam has been found to provide more complete and nuanced information on which to base placement decisions (Barnett and Reddy; Hassel and Giordano). One study revealed a substantial increase in the proportion of at-risk students who remained in good standing after a faculty-scored writing sample was used in addition to a standardized test in placing students, from 59% before using the writing sample to 73% afterward (Duffy et al.). This type of assessment is also used by the University of California System for placement of incoming students within composition course sequences, yet in the broad sweep of reform in community colleges, assessments such as these are being eliminated along with standardized tests.

As previously stated, in this study we set forth to find how students placed in four levels of composition courses at one college differ in their academic writing performance. We also wanted to know whether high school GPA is related to student placement level and/or level of student writing proficiency.

Methodology, Study Design, and Data Collection

The present research was conducted at a large urban community college in California, enrolling approximately fifty thousand students. The two largest ethnic populations at the college are Hispanic (55%) and Asian (19%). Most students (71%) are under thirty years old. Over half of the students attend the college part-time, and three-quarters receive financial aid.

Participants

Eight consenting faculty administered the assessment involved in this study in thirteen sections of courses over two semesters. Students in the course sections taught by participating faculty were involved in the study, with the option to opt out. The study involved students in three levels of precollegiate composition courses as well as students from the transfer-level composition course. Unlike many institutions, where precollegiate coursework is non-credit bearing, all of the precollegiate courses at this institution were offered for credit. However, that credit was not applicable toward degree attainment. The courses were PCL1, the first-level precollegiate course; PCL2, the second-level precollegiate course; PCL3, the precollegiate course just below the transfer-level course; and CL, the transfer, college-level course. The PCL1 course was taught in the Learning Assistance department, while the other three courses were taught in the English department (see Table 1 for course titles and content description by level).

TABLE 1. Course Title and Content by Level

LEVEL	COURSE TITLE	COURSE CONTENT
CL	Freshman Composition	Development of expository writing skills. Investigates the principles and methods of composition as applied to the research process and writing of essays. Critical reading of academic material.
PCL3	Preparation for College Writing	Development of the academic essay based on critical reading of texts.
PCL2	Writing Fundamentals	Emphasis of summary, paragraph and beginning essay skills. Reading and writing critically.
PCL1	Improving Writing Skills	Improvement of writing process and product through prewriting, writing, editing, and revising.

Student participants were mostly bilingual (80%), speaking one or more languages in addition to English. The other languages spoken were mainly Spanish (70%) and Chinese (15%). Over half (60%) of the bilingual students were English learners who indicated having taken either English as a Second Language (ESL) or English Language Development (ELD) classes throughout their educational experiences. These students made up 40% of the total sample. The mean age of student participants was twenty-two years. They reported working twenty-four hours per week, on average, while attending the college.

College Placement Exam

Almost all of the students in this study indicated having taken the college placement exam (95%). The process for placing students into the initial composition courses

The process for placing students into the initial composition courses (PCL1, PCL2, PCL3, or CL) at this college included a holistic, faculty-scored exam in which students provided a writing sample as they responded to their choice of one of two writing prompts.

(PCL1, PCL2, PCL3, or CL) at this college included a holistic, faculty-scored exam in which students provided a writing sample as they responded to their choice of one of two writing prompts. The prompts elicited an opinion statement that students were asked to make and support in their writing. Examples of the prompts included questions such as *Why do you think people lie, and what problems can lies create?* and *Explain what you think is the most important thing people should spend their money on. Why is this important?* Students were given forty-five

minutes to address the on-demand writing prompt in the testing center, where they had the option of completing the exam either by hand or on a computer.

The college placement exam was scored by trained writing faculty using a rubric with the following categories: organization, development, reasoning and ideas, and use of language (see Appendix A for scoring guidelines). After norming procedures in which sample papers were scored and discussed to ensure scoring reliability, each paper was read and scored by two faculty. A third, more experienced faculty reader was involved if agreement about a score was not reached by the first two readers. Students were referred to a particular course in the composition sequence based on their score. For papers that scored close to cut-off scores between levels, multiple measures were used to determine student placement. These measures were based on a student survey including information about high school GPA and noncognitive factors such as reading and study habits.

Data Collection and Analytic Measures

Instrument. The instrument used in this study to determine writing competency and to detect academic writing strengths and weaknesses was a text-based academic writing assessment (AWA) that called for the synthesis of two texts and the creation of an interpretive argument in a well-structured essay (Olson and Land). It was selected because whereas the college placement examination is a stand-alone assessment focused on students' opinions and personal experience, the AWA prompts required students to read, interpret, and synthesize two complex texts and to construct an argument drawing upon both sources—skills emphasized in both the Common Core State Standards and the Framework for Success in Postsecondary Writing. The writing assessment was administered in the composition classes in two 45-minute segments, following AWA procedures that provide students with time to read the texts closely prior to the timed writing. In the first segment, faculty read the two texts aloud to students. Students followed along with their own copy of the texts and were encouraged to annotate. Students were then guided by faculty through the completion of a conceptual planning packet that included three steps using graphic organizers that led to the formation of a distinct claim, establishing their main argument for the paper. In the second 45-minute segment, students referred to the two annotated passages and the completed conceptual planning packet to write the essay. Administration was completed by the second week of classes in all of the course sections to minimize the amount of instruction students received before testing. To prevent biased advantage based on the prompt, two different but structurally comparable prompts and sets of texts were used. Half of the students at each course level were given a test with one prompt and set of texts and the other half, the other prompt and texts (see Appendix B for prompts used).

Each paper was scored by two trained readers. Readers of the exam were fellows of a National Writing Project site who were involved voluntarily and were selected based on the following criteria: possession of a master's degree, experience teaching English, and participation in training for scoring papers. Norming procedures included reading through and scoring a set of anchor papers selected by experienced scoring leaders who followed the University of California System placement essay scoring procedures, with slight modifications. Readers and leaders

discussed paper scores, and leaders retrained any scorers who had a problematic response set.

The assessment rubric was aligned with established measures of writing competency as outlined in the National Assessment of Educational Progress, the California Common Core State Standards, and The Framework for Success in Postsecondary Writing, measuring skills that students should have when ready for college. Scores were determined holistically on a 6-point scale, based upon the following features: quality and depth of interpretation, the clarity of the claim, the organization of ideas, the appropriateness and adequacy of textual evidence, use of sentence variety, and the correct use of English conventions (see Appendix C for scoring guide).

Reader scores (1–6) were combined to establish an official score, ranging from 2 to 12. In cases when there was a discrepancy in the two scores by two or more points, the papers were scored by a third, more experienced reader. When the third score was the same as either of the first two scores, the two matching scores were combined to determine the official score. If the third score differed from the first two, it was added to the average of the initial scores. A score of 7 or greater was considered a passing score. Mean scores on the writing assessment were calculated for each course level and compared across levels. Two-way t-tests were run between each course level to determine statistical significance of the differences in mean scores.

Survey Data. In addition to the writing assessment, student data was collected using a survey to gather information about students' educational background and goals as well as their perceived level of preparedness for college (see Appendix D for survey). Student-reported high school GPA was obtained from the surveys.

Analyses

To investigate differences in student writing performance by course level, mean scores on the writing assessment were calculated for each level and compared across levels. To detect if there were statistically significant differences in mean scores across course-level groups, two-way t-tests were run between each course level. Effect sizes were calculated to determine the strength of the differences (see Appendix E for effect size of differences between groups). In order to control for other variables, regression analysis was used to determine the effect of other factors on student test score by level (see Appendix F for regression results).

Drawing upon data obtained from the assessment results and the student survey, a final set of analyses was performed to investigate potential relationships between course level, student academic writing performance, and high school GPA. Student self-reported high school GPA was obtained from the aforementioned student surveys. A high school GPA was reported by 70% of students in the overall sample. Some students reported a range, such as 3.0–3.5 rather than a single average. In such cases, the high end of the range (3.5) was recorded. Of the 30% that did not report a GPA, slightly over half did not report an answer at all, leaving the line on the survey blank. A third reported that they were unsure or did not remember, and

the rest reported that the question was not applicable. To examine the possibility of a relationship between course level, mean score on the AWA, and GPA, two correlational analyses were conducted (see Appendix G for correlation analyses results).

Findings and Discussion

Student Writing Performance across Course Levels

To investigate general differences between student writing at the various course levels, mean scores on the AWA were calculated at each level and compared. A combined score of 7 (a 3 and a 4 from two readers) or more was considered an adequate response to the prompt, or a passing score. Nearly half of the students assessed (46%) received a passing score (see Table 2 for pass rate by course level).

The passing students were more concentrated in the upper two course levels. Score distributions follow a normal curve and vary most widely at the college, transfer-level course (CL) (see Table 3 for distribution of scores by course level). The CL course was the only course level in which students scored nearly every possible score (with the exception of the highest score, a 6 from each reader for a combined score of 12). This wide range of scores highlights the need for differentiated instruction at this level even before the effect of reform efforts, which will result in more students with varying levels of proficiency placing into the college-level course.

TABLE 2. Passing Students by Course Level

LEVEL	<i>n</i>	#PASS	PERCENT
CL	46	24	52%
PCL3	69	36	52%
PCL2	68	28	41%
PCL1	27	8	30%
Total	210	96	46%

n = number of student participants

TABLE 3. Score Distribution by Level

LEVEL/SCORE	2	3	4	5	6	7	8	9	10	11	TOTAL
CL	2	1	5	4	10	9	5	4	3	3	46
PCL3	2	1	3	11	16	17	15	3	1	0	69
PCL2	0	3	4	11	22	20	5	3	0	0	68
PCL1	2	2	4	6	5	6	1	1	0	0	27
Total	6	7	16	32	53	52	26	11	4	3	210

Score distributions follow a normal curve and vary most widely in the college-level course.

Results show that the mean scores at each level increased with each rise in course level (see Table 4 for mean scores by level). This suggests that the college writing assessment process used to place students in the various course levels at this college has been effective in identifying groups of students with measurably different levels of writing proficiency. Initially, this result can be understood as a confirmation of the need for four distinct course levels, contradicting the current policy decisions underway that aim to combine or eliminate precollegiate courses and place students directly into college-level composition courses.

However, upon further investigation, statistically significant differences in means are found between only one course level and the other three levels.

This difference lies between the lowest-level composition course (PCL1) and each of the higher-level courses (PCL2, $p = 0.0194$) (PCL3, $p = 0.004$) and (CL, $p = 0.0092$). This finding suggests that differences in mean scores between the other courses may be due only to chance, while real differences that affect mean scores exist between students in the PCL1 course and all other course levels. In other words, although they had differing mean scores, students in the two courses preceding the college-level course (PCL2 and PCL3) are not substantially different in writing proficiency level than students who placed into the college-level course (CL), while students who placed into the first-level precollegiate course (PCL1) differed from those in the college-level course (CL) in considerable ways and may be further disadvantaged by being placed directly into the college-level course. It is also worth noting that there was a marginally significant difference between the next-to-lowest level precollegiate course (PCL2) and the college-level course (CL) ($p = 0.09$). This means that students who place into PCL2 may need additional support in order to succeed if placed directly in the college-level course. Further investigation is necessary to determine the type and extent of support that is needed.

TABLE 4. MEAN SCORES BY LEVEL

LEVEL	N	M	SD
CL	46	6.72	2.26
PCL3	69	6.46	1.58
PCL2	68	6.16	1.33
PCL1	27	5.37	1.76

Statistically significant differences lie between the PCL1 course and all other courses (PCL1-PCL2, $p = .02$; PCL1-PCL3, $p = .004$; PCL1-CL, $p = .009$). Marginally significant difference was found between PCL2-CL, $p = .09$.

In order to ensure that the found differences are substantial for making generalizations from the data despite limited sample sizes, further analyses were performed calculating the strength, or effect size of the differences between groups (see Appendix E for results and explanation of effect sizes). For groups with statistically significant differences in mean scores between them (PCL1 and PCL2, PCL1 and PCL3 and PCL1 and CL), the effect size was between 0.50 and 0.80, what Jacob J. Cohen refers to as “medium” to “large.” Equally interesting, the effect sizes for differences between groups that were not statistically significant were “small” or less, with the exception of the group that had marginal statistically significant differences (PCL2 and CL), which had an effect size higher than what would be considered small, but not medium. These results match the earlier p-value results and confirm the strength of the findings of significant and nonsignificant differences between the groups. Additionally, to control for other variables, regression analysis was used with three varying models to detect the effect of other factors on student test score, which again confirmed the strength of the earlier results (see Appendix F for regression results).

These results can inform our thinking about current policy based on previous research that shows there are too many courses that precede the college-level course, which can hinder student progress to degree completion or transfer to a four-year university (Mejia et.al.). The results seem to indicate that more students can experience success if placed directly into the college-level (CL) composition course, which can save up to a year of required coursework and increase the students’ overall chances of college success. However, another implication of these results is that this policy, overextended to include students in the lowest level (PCL1) course (and possibly, to an extent, the next level PCL2 course) may be disadvantageous for some students. This finding suggests that students at this level need more comprehensive instruction and assistance that can support their writing development before attempting the college-level course. These results confirm the findings of previous studies that show that some students may benefit from acceleration while others may not (Bailey and Jaggars; Hassel and Giordano).

Relationship between Course Level, Writing Performance, and High School GPA

To investigate a possible relationship between course level and high school GPA and between writing performance and high school GPA, two correlational analyses were performed. Results of the Pearson correlation indicated that there was a weakly positive association between course level and GPA ($r = .1397$, $n = 178$); a scatterplot reveals a lack of linear relationship, or interdependence, between the two variables (see Appendix G). These results suggest that students’ self-reported high school GPAs and their course level, as determined by the college placement exam, are weakly related. The second correlational analysis performed examined the relationship between students’ high school GPA and their writing assessment score on the AWA used in this study. This association was very weakly positive ($r = 0.0986$, $n = 168$). The scatterplot of the association also shows no linear relationship

between the two variables. Together, the results of these two correlational analyses imply that students' high school GPAs may be an insufficient indicator of their level of writing proficiency.

These data suggest that although high school GPA has been shown to be strongly associated with college GPAs and useful for predicting certain facets of students' college performance (Belfield and Crosta), it is very weakly associated with students' level of writing proficiency. An implication of this result is that measures that provide more specific information about students' preparedness in writing are needed for accurate student placement into composition courses.

Conclusion and Implications

The central aim of this study was to find what differences might exist in the writing of community college students who are placed into various levels of composition courses in order to understand if multiple course levels that lead to the college-level course are justified. The generalizability of the findings presented here may be limited due to the collection of data at a single institution. Further limitations include the possibility that an on-demand, timed writing assessment may have offered an advantage to students who are more experienced writers. Nonetheless, results presented in this study can have important implications for policy and practice.

This study reveals that average scores on the writing assessment increase with each rise in course level, confirming that the college placement process (in this case, a writing exam holistically scored by faculty readers in a similar way that

This study reveals that average scores on the writing assessment increase with each rise in course level, confirming that the college placement process . . . is effective in identifying groups of students with varying levels of writing proficiency.

the assessment administered in this study was scored) is effective in identifying groups of students with varying levels of writing proficiency. While some may think this result is expected since the two exams were similar in their scoring processes, it is their differences that cause this outcome to be interesting. The college placement exam included a stand-alone prompt while the assessment for this study employed an analytical text-based prompt in which students were asked to interpret and integrate two texts into

their writing. Although the two exams differed in these ways, the course levels into which students were placed by the college placement exam generally matched their level of academic writing proficiency as measured by the assessment in this study. An implication of this result is that this type of exam and scoring process, similar to the one currently used by the University of California System to place incoming first-year students into composition courses, is an effective means for determining writing proficiency level. This confirms findings of previous studies that indicate that this type of exam has been found to provide more complete and

nuanced information on which to base placement decisions (Barnett and Reddy; Hassel and Giordano). It also implies that this type of assessment, instead of being eliminated along with standardized placement tests, which have been found to seriously misplace students (Scott-Clayton; Belfield and Crosta; Hassel and Giordano; Barnett and Reddy), should be pursued by institutions for more accurate placement of students. In assessing student readiness for first-year writing, scholars in the field of writing studies have determined the need for writing assessment measures that are context specific and locally directed in order to better meet the needs of their student populations (Hassel and Giordano; Huot; White). This type of writing assessment, developed locally and holistically scored by faculty who teach composition, can meet this need.

The results of this study also indicate that although students who are placed in four levels of courses by the college placement exam had increasing average scores on the writing assessment by course level, this does not warrant the need for all four course levels. The differences in mean scores between students in the college-level course (CL) and the precollegiate course that precedes it (PCL3) were not statistically significant and are likely due only to chance. Some chance-related factors might include environmental conditions of the classroom, a student's level of fatigue, and potential distractions. The differences detected also show a small effect size, confirming their lack of significance. Additionally, the differences in mean scores between the college-level course and the precollegiate course two levels below it (PCL2) bore only marginal statistical significance with an effect size that is greater than what is largely considered small. These results suggest that although students in the PCL2 and PCL3 courses (on average) had lower means in their writing assessment scores, these students may have a good chance at succeeding if placed directly into the college-level course with appropriate levels of support. For these students, reform efforts that allow them this opportunity can help to expedite the accomplishment of their educational and career goals.

This does not, however, equally apply to students in the lowest precollegiate course (PCL1). In this study, the mean scores on the writing assessment for students who placed into this course differed with statistical significance and with medium to almost large effect sizes from each of the other three course levels. This indicates that average student scores at this level were not likely due to chance, and that students that place into this course level require additional support *before* attempting the college-level course. These results confirm the findings of previous studies that show that some students may benefit from acceleration while others may not

The results of this study also indicate that although students who are placed in four levels of courses by the college placement exam had increasing average scores on the writing assessment by course level, this does not warrant the need for all four course levels.

(Bailey and Jaggars; Hassel and Giordano). Reform efforts that seek to eliminate all precollegiate course levels may further disadvantage students who are already the

Reform efforts that seek to eliminate all precollegiate course levels may further disadvantage students who are already the most disadvantaged in terms of level of writing proficiency.

most disadvantaged in terms of level of writing proficiency, since these changes “will not magically make such students prepared for college work” (Hassel and Giordano 77). Since the use of placement measures by institutions are quickly shifting primarily to the use of students’ high school GPA, which has been found in this study to be weakly correlated with both level of writing proficiency and course level, it may become increasingly

more difficult to identify students who need a greater measure of support.

These findings confirm the potentially positive impact of certain reform efforts on numerous students’ chances for college success, while cautioning about overly broad implementation of those efforts that may place some students at a disadvantage. From these analyses it seems evident that many students previously placed into precollegiate courses by a writing assessment at this college may find success when being placed directly into the college-level course. Further investigation is needed to determine the type of curricular and instructional support that is needed to ensure their success. The findings also show that some students need a greater measure of support and instruction before attempting the college-level course. Attempts to identify these students will become increasingly more challenging as reform efforts that effect placement processes are underway. In view of these findings, the current movement toward completely eliminating precollegiate courses without further investigation of the impact of this policy on students who are the most low-performing should be reassessed.

APPENDIX A: COLLEGE PLACEMENT EXAM

Scoring Guidelines

Organization:

1. Generally well organized
2. Main idea clear and effective

Development:

1. Coherent
2. Details are provided and are effective
3. Generally sustained development
4. Appropriate sense of audience

Reasoning and Ideas:

1. Critical thinking is evident
2. Logic is clear
3. Effectively addresses the prompt

Language:

1. May have infrequent sentence boundary issues
2. Syntax/sentence structure is clear and may be sophisticated
3. Purposeful word use

Sample Prompts

Students are provided with a set of two prompts and are asked to provide an example of their best writing.

1. *“All human actions have one or more of these seven causes: chance, nature, compulsions, habit, reason, passion, desire.” -Aristotle*

Of these seven causes that lead to human actions, which do you find to be most true? Give an example that focuses on one of Aristotle’s seven actions. Explain what kinds of behavior it leads to.

2. What was the worst kind of work you ever did? This might have been anything: a paying job, household or school-related chores, or volunteer work. Describe the work. Explain why you found it unpleasant, and discuss ways that would have made it more satisfying.

APPENDIX B: WRITING ASSESSMENT PROMPTS

The Railroad Runs to Canada

Background

In her article “Seven Qualities of a Good Leader,” Barbara White, author and expert in educational leadership, identifies seven key qualities that enable good leaders to guide, influence or direct others.

Writing Directions

You have just read an excerpt from Ann Petry’s biography *Harriet Tubman: Conductor on the Underground Railroad*, describing how Harriet, an escaped slave, returned to southern plantations to rescue other slaves and guide them to freedom.

PROMPT

Review White’s article, “Seven Qualities of a Good Leader.” **Write an essay in which you make a claim about ONE quality of leadership that was MOST ESSENTIAL in enabling Harriet to guide the slaves to the North.**

In the body of your essay:

- Discuss how Harriet’s key quality of leadership helped her to overcome several obstacles and why it was so important to her and the other slaves’ survival.
- Compare and contrast Harriet’s response to this life-threatening situation with that of the slaves. What does Harriet share in common with her followers and what differences allowed her to emerge as a leader?

In your conclusion, describe a lesson we can learn from Harriet’s story and her acts of courage.

REMEMBER to clearly address all parts of the writing task. Support your main ideas with evidence from **both** reading selections, use precise and descriptive language, and proofread your paper to correct errors in the conventions of written English.

Unbroken

Background

In her article “What is Resilience?” psychologist Kendra Cherry defines resilience as the ability to cope with problems and setbacks. Cherry identifies seven key characteristics of resilience that give people “the strength to tackle problems head on” and to overcome adversity.

Writing Directions

You have just read an excerpt from Laura Hillenbrand’s book *Unbroken*, the biography of World War II hero Louie Zamperini, describing the events that occurred after Zamperini’s plane crashed in the Pacific Ocean and he and two crewmates were adrift at sea.

PROMPT

Review Cherry’s article “What is Resilience?” **Write an essay in which you make a claim about ONE characteristic of resilience that was MOST ESSENTIAL in enabling Louie to survive.**

In the body of your essay:

- Discuss how Louie’s key characteristic of resilience helped him to overcome several obstacles and why it was so important to his survival.
- Compare and contrast Louie’s response to this life-threatening situation with that of Phil and Mac. Explain how these differences contributed to Louie’s survival.

In your conclusion, describe a lesson we can learn from Louie’s story of survival.

REMEMBER to clearly address all parts of the writing task, support your main ideas with evidence from **both** reading selections, use precise and descriptive language, and proofread your paper to correct errors in the conventions of written English.

APPENDIX C: WRITING ASSESSMENT SCORING GUIDE

Scoring Guide for “The Railroad Runs to Canada” and “Unbroken”

Note: Papers at all levels of achievement described below will contain some or all of the characteristics listed as criteria for each particular score.

6 Exceptional Achievement

- > Writer introduces the subject, giving enough background for the reader to follow the interpretation he/she offers in response to the prompt.
- > Writer presents a thoughtful/insightful claim about the ONE quality of leadership that was most essential in enabling Harriet to inspire the slaves or the ONE characteristic of resilience that was most essential in enabling Louie to survive.
- > Writer gives specific examples of several obstacles Harriet and the slaves faced and perceptively discusses how a key leadership quality helped Harriet overcome these obstacles or gives specific examples of several obstacles Louie and the men faced, and how Louie’s key trait of resilience helped him to overcome these obstacles.
- > Writer thoughtfully compares Harriet’s response to this life threatening situation with that of the slaves (how she is like and different from them) or Louie’s response to that of Phil and Mac (who is more like him and less like him).
- > Writer thoughtfully analyzes a lesson readers can learn from Harriet’s acts of courage or Louie’s story of survival.
- > Writer skillfully weaves numerous references from both sources (the nonfiction biography and the source materials on leadership or resilience) into the essay to support his/her claim.
- > Writer uses especially precise and descriptive language as well as transition words.
- > Writer interprets authoritatively using a formal tone and advances to a logical conclusion that clearly follows from and supports the argument presented.
- > Paper has few errors in the conventions of written English.

5 Commendable Achievement

- > Writer introduces the subject, giving enough background for the reader to follow the interpretation he/she offers in response to the prompt.
- > Writer presents a reasonably thoughtful claim about the quality of leadership that was most essential in enabling Harriet to inspire the slaves or the characteristic of resilience that was most essential in enabling Louie to survive.
- > Writer gives examples of obstacles Harriet and the slaves faced and thoughtfully discusses how a key leadership quality helped Harriet overcome these obstacles or gives examples of several obstacles Louie and the men faced, and how Louie’s key trait of resilience helped him to overcome these obstacles.
- > Writer thoughtfully compares Harriet’s response to this life threatening situation with that of the slaves (how she is like and different from them) or Louie’s response to that of Phil and Mac (who is more like him and less like him).
- > Writer thoughtfully analyzes a lesson readers can learn from Harriet’s acts of courage or Louie’s story of survival.
- > Writer weaves some references from both sources (the nonfiction biography and the source materials on leadership or resilience) into the essay to support his/her claim.

- > Writer uses some precise and descriptive language as well as transition words.
- > Writer interprets authoritatively using a formal tone and advances to a logical conclusion that clearly follows from and supports the argument presented but the conclusion is less compelling than a 6 paper.
- > Paper has relatively few errors in the conventions of written English.

4 Adequate Achievement

- > Writer orients the reader adequately by giving at least some introductory context.
- > Writer may begin unsteadily but reaches a focus or point as the essay progresses.
- > Writer presents an adequate claim about the quality of leadership or characteristic of resilience that was most essential in enabling Harriet/Louie to overcome obstacles/survive.
- > Writer gives examples of obstacles Harriet and the slaves faced and discusses how a key leadership quality helped Harriet overcome these obstacles or gives examples of obstacles Louie and the men faced, and how Louie's key trait of resilience helped him to overcome these obstacles.
- > Writer compares Harriet's response to this life threatening situation with that of the slaves (how she is like and different from them) or Louie's response to that of Phil and Mac (who is more like him and less like him).
- > Writer adequately analyzes a lesson readers can learn from Harriet's acts of courage or Louie's story of survival.
- > Writer weaves a few references from both sources (the nonfiction biography and the source materials on leadership or resilience) into the essay to support his/her claim.
- > Writer uses less precise and descriptive language as well as transition words.
- > Writer interprets less authoritatively using a less formal tone and advances to a conclusion that supports the argument presented but the conclusion is less compelling than a 5 or 6 paper.

3 Some Evidence of Achievement

- > Writer introduces the topic perfunctorily or simply dives in— answering the questions without developing a clear introduction.
- > Overall, writer's discussion of "The Railroad Runs to Canada" or "Unbroken" may be superficial or rely on the retelling of events and provide little in the way of analysis or commentary.
- > Writer may fail to make a claim about what quality of leadership or characteristic of resilience enabled Harriet to inspire the slaves or Louie to survive.
- > Writer may fail to give specific examples of the obstacles Harriet and the slaves or the men faced or give examples but fail to discuss or superficially discuss how the key trait of leadership or resilience helped Harriet/Louie to overcome obstacles.
- > Writer may fail to compare and contrast Harriet to the slaves or Louie to Phil and Mac.
- > Writer's conclusion may not connect the characters' traits of leadership or resilience to his/her values and beliefs.
- > Writer may provide a superficial lesson learned or neglect to discuss what lesson can be learned.
- > Writer uses little to no precise and descriptive language or transition words.

- > Writer uses few, if any, references to the texts (the biography or non-fiction materials on leadership or resilience).
- > Paper has many errors in the conventions of written English, some of which may interfere with the writer's message.

2 Little Evidence of Achievement

- > Writer provides no introduction or it is brief and unfocused.
- > Writer may simply retell the story without seeming to really understand everything that takes place.
- > Writer may fail to discuss characteristics of leadership and resilience and how they are demonstrated by Harriet or Louie.
- > Writer may fail to give examples of how Harriet or Louie use leadership or resilience to overcome obstacles.
- > Writer may not understand or fails to discuss the lesson learned in "The Railroad Runs to Canada" or "Unbroken."
- > Writer talks in generalities and fails to provide references to the two source texts. Conclusion may be abrupt or missing.
- > Language is imprecise.
- > Paper has errors in the conventions of written English, many of which interfere with the author's message.

1 Minimal Evidence of Achievement

- > Context/introduction is missing, abrupt or confusing.
- > Writer does not discuss or appear to understand what characteristics of leadership or resilience are displayed by Harriet or Louie.
- > Writer merely retells the story and does not describe what obstacles the characters faced or how they use leadership/resilience to overcome them.
- > Writer makes no attempt to consider what lesson can be learned from the biographies.
- > Writer fails to provide references to either the fictional text or nonfiction source material.
- > Writer has very poor command of how to construct an essay.
- > Paper has so many errors in the conventions of written English that the writer's meaning is obscured.

APPENDIX D: STUDENT SURVEY

Name _____ Sex (circle) M F Birthdate _____

1. What language(s) other than English do you *speak* (if any)? _____

2. What language(s) other than English do you *read* or *write* (if any)? Read _____ Write _____

3. If you speak another language, were you in ESL or ELD classes in elementary, middle or high school? (circle) Yes No

If yes, please explain: _____

4. What is the highest level of education of your mother/guardian? (circle)

less than high school high school diploma college degree AA/AS

4 year college degree BS/BA professional degree

Your father/guardian? (circle)

less than high school high school diploma college degree AA/AS

4 year college degree BS/BA professional degree

5. How long have you been a student at the college? _____

6. Did you take the college writing placement exam? (circle) Yes No

If yes, what course did you place in? _____

7. Why are you taking this class? _____

What do you hope to get out of it? _____

8. What other classes are you currently enrolled in? _____

9. How do you get to campus? _____

How long does it take you? _____

10. What activities are you involved in on campus, if any? _____

11. Are you responsible for the care of others? (children/elderly, etc.) (circle) Yes No

If yes, describe:

12. Do you have a job? (circle) Yes No If yes, how many hours per week do you work? _____

13. What are your educational goals at the college? _____

14. What are your career goals? _____

15. Have you met with an academic counselor at the college? (circle) Yes No

If yes, how long ago? _____

16. What do you think makes a student successful? _____

17. What do you do to help yourself succeed in your classes? _____

Please answer the following questions by circling a number:

neutral

18. How motivated are you to do well in school?

low 1-----2-----3-----4-----5 high

19. I feel supported by my family/friends to succeed in college.

disagree 1-----2-----3-----4-----5 agree

20. I am a hard worker.

disagree 1-----2-----3-----4-----5 agree

21. I am a good student.

disagree 1-----2-----3-----4-----5 agree

22. I am able to accomplish the things I decide to do.

disagree 1-----2-----3-----4-----5 agree

23. When I don't know how to do something, I look for ways to find out.

disagree 1-----2-----3-----4-----5 agree

24. What was your overall high school GPA? _____

Thank you for participating!

APPENDIX E: EFFECT SIZE OF DIFFERENCES BETWEEN GROUPS

Between Groups	Effect Size		p value
	Cohen's d	Hedge's g	
PCL1 and PCL2	0.506	0.540	0.019*
PCL1 and PCL3	0.652	0.668	0.004**
PCL1 and CL	0.667	0.646	0.009**
PCL2 and PCL3	0.205	0.205	0.232
PCL2 and CL	0.302	0.318	0.090†
PCL3 and CL	0.133	0.138	0.469

* = statistically significant with 95% confidence ** = statistically significant with 99% confidence
 † = marginally statistically significant

Note: According to Cohen, $d = 0.2$ is considered a “small” effect size, 0.5 is “medium,” and 0.8 is considered “large.” Cohen’s d was determined by calculating the mean difference between groups and then dividing the result by the pooled standard deviation [$d = M_1 - M_2 / SD_{\text{pooled}}$, where $SD_{\text{pooled}} = \sqrt{((SD_1^2 + SD_2^2) / 2)}$]. As an additional check, effect size that is weighted according to the relative size of each sample (the corrected effect size) was calculated using Hedge’s g . This calculation was made using the above formula for Cohen’s d , but with a weighted standard deviation. The effect size results using Cohen’s d and Hedge’s g were similar.

Appendix F continues on the next page.

APPENDIX F: RESULTS OF MULTIPLE REGRESSION ANALYSES PREDICTING STUDENT WRITING ASSESSMENT SCORES

Variable	1	Model 2	3
Course Level			
PCL1	-1.347021*** (.4130651)	-1.136741** (.4912157)	-1.25669** (.4909197)
PCL2	-.5556266* (.3252647)	-.4647276 (.4075992)	-.681981* (.4059558)
PCL3	-.2536232 (.3243122)	-.0669602 (.3876547)	-.170505 (.3908362)
Demographics			
HSGPA		.0437662 (.1469852)	.1717478 (.1875217)
Sex		-.2987434 (.1815668)	-.3218188* (.1804439)
Age		-.0106498 (.0256003)	-.0278023 (.0267927)
Parent education (combined, mother and father)		.0623966 (.0752267)	.0321534 (.0769619)
Survey Questions			
Motivation to do well in school			.7444347*** (.2370844)
Sense of being supported to succeed in college			-.1091962 (.1713719)
Self-perception as a hard worker			.1288329 (.2461171)
Self-perception as a good student			-.3522157 (.2330579)
Sense of self-efficacy			-.1156391 (.2687766)
Persistence (when not knowing how to do something)			.0174054 (.1868223)
Observations	210	159	158
df	F(3, 206)	F(7, 151)	F(13, 144)
F-test	3.95	1.94	2.24
R ²	0.0544	0.0826	0.1680

Note: ***p<.01 **p<.05 *p<.1

Each of the three models included the first three course levels (PCL1, PCL2, and PCL3) compared with the college-level course (CL). The outcome variable was students' writing assessment scores. The data for other variables were obtained through the student survey previously described. The first regression model has sufficient explanatory power with Prob> F = .0091. The coefficient for the variable PCL1 indicates that, on average, students in the lowest-level precollegiate course scored 1.35 points lower (on a 6-point scale) than students in the college-level course. Confirming the earlier t-test analysis, this model shows that the difference in score bears statistical significance at the 99% confidence level (p = .001). Students

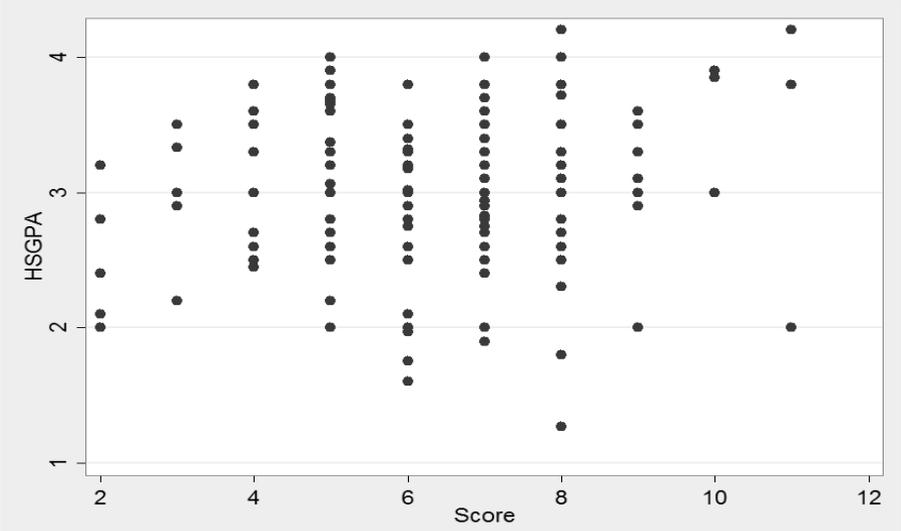
in PCL2, the next course level, scored a little over half a point less than students in CL, and this difference is moderately significant ($p = .089$), again, confirming the earlier t-test results.

In model 2, while controlling for the demographic variables of high school GPA, sex, age, and level of parent education, the difference between PCL1 and CL is still statistically significant ($p = .025$). In the third regression model, certain noncognitive factors attained from the student survey were included in order to control for their effect on student achievement. Noncognitive factors are those not measured by achievement or intelligence tests such as skills, behaviors, strategies, or beliefs that can affect students' academic performance (Nagaoka and Farrington).

Factors from the student survey such as level of student motivation for academic success, students' sense of support, self-perception as a hard worker, self-perception as a good student, sense of self-efficacy, and academic persistence were added to the model. Results indicate that the statistically significant difference between PCL1 and CL remains while controlling for these variables. Again, as in the first model, marginal statistically significant difference is found between PCL2 and CL. An unexpected (but perhaps not surprising) finding in this third model is that students' level of motivation is revealed as a statistically significant predictor of score ($p = .004$).

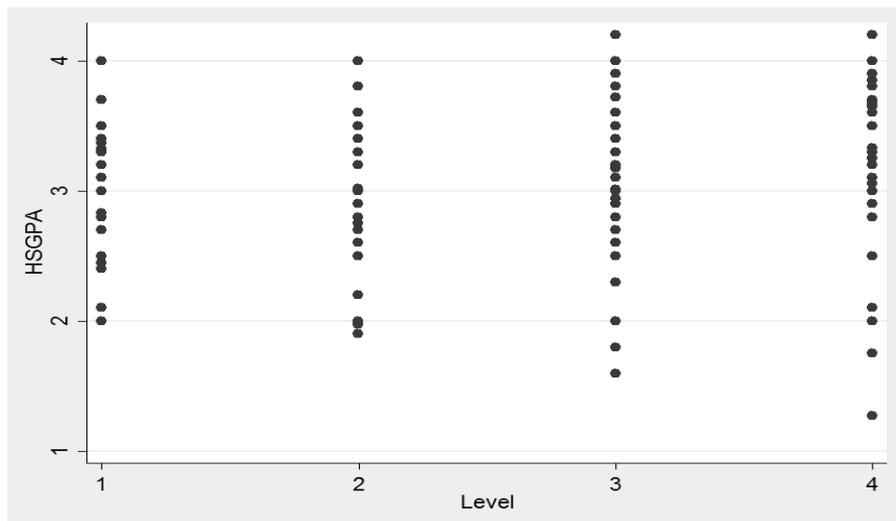
APPENDIX G: CORRELATION ANALYSES SCATTERPLOTS

Relationship between GPA and Score



The association between GPA and score is weakly positive ($r = .1397$). A lack of linear relationship, or interdependence, can be seen between the two variables.

Relationship between GPA and Course Level



The association between GPA and course level is very weakly positive ($r = 0.0986$). There is no linear relationship between the two variables.

Note

1. Compared to high school graduates, those with an associate degree earn 12 percent greater income and those with a bachelor's degree earn 39 percent more.

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