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LA County Unified School Districts': Expenditures and College Preparedness Among Hispanic

Students

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## **Introduction**

Did you know that in 2021, thirty-one percent of Latino students were less likely to be enrolled in a college institution compared to twenty percent of their White, non-Latino peers (Excelencia In Education, 2023)? During the years 2018 to 2021, it was revealed that the degree completion gaps between Latino and White students had increased, as the graduation rate for White students had gone up from 35% to 38% in two-year institutions and from 63% to 65% in four-year institutions (Excelencia In Education, 2023). In comparison, the graduation rates for Latinos remained the same at two-year institutions at 33% and only increased by one percent at four-year institutions from 51% to 52% (Excelencia In Education, 2023). It is important to understand how various factors can contribute to these statistics and how the system can further support Hispanic students in being better prepared for college. For example, the educational resources provided at school can play a role in a student's education experience. Therefore, I will continue to focus on the impact school district spending has on Hispanic students in Los Angeles County Unified School Districts.

In the following paper, I will dive into different sections that will develop an understanding of Los Angeles County Unified School Districts' expenditures by gathering data on certificated personnel salaries, including books and supplies, from the academic years of 2017 to 2020. In addition, I will provide data on college preparedness scores among Hispanic students to see the impact these specific expenditures have had on students' preparedness for college. My paper will focus on answering the following question: Across Los Angeles County unified school districts, what is the impact of expenditures on college preparedness for Hispanic students?

### **Significance of Issue**

Hispanic students have been part of the large percentage of students who are unprepared for college or do not attend a university due to a lack of resources. The lack of college preparation students feel during their K-12 years can stem from needing more time with teachers or counselors, resources that can assist a student's learning, and guidance at their school leading to many students deciding not to attend college. A student's educational journey is further supported based on the amount being invested into resources providing career support. The U.S. Census Bureau estimates that eighty-seven percent of Latino students have a high school diploma, with only forty-four percent of those high school graduates being supported to meet the eligibility requirements for UC and CSU universities (California School Boards Association, 2022). It is crucial to raise questions that allow us to understand the challenges Hispanic students face in meeting the requirements for college and accessing sufficient support while researching additional resources that can provide more adequate tools.

It is the responsibility of school districts to not only understand how funding is being distributed in various expenditures but also to ensure that the current tools provided to Hispanic students are truly increasing their college preparedness. By developing research that focuses on the impact expenditures have on college preparedness for Hispanic students, these students can be equally supported to attain the necessary and most effective resources. Hispanic students can be faced with financial and familial obstacles, meaning further guidance including equitable resources are needed in their education. Therefore, it is crucial for school districts to take the lead in analyzing the impact of expenditures among Hispanic students, instead of continuing to assume that all students are thriving with the same resources.

## **Background**

From 2006 to 2007, the State of Texas studied the college-ready rates of high school seniors in different race groups based on reading and math rates. The study indicated that Latino students had a college-readiness rate in both subjects of 22.6%, 17.20% for African-American students, and 40.73% for White students (Moore et al., 2010). The findings demonstrated that Latino and African-American students had significantly lower college-ready rates compared to White students. It is indicated that Latino and African-American students were not meeting close to 50% college-ready rates, meaning further research should be conducted to understand why the rates were so low compared to White students. By schools becoming aware of the gap different race groups face with college readiness, research can provide findings to ensure all students are receiving equal educational opportunities to close the college-ready gap. Many Latino and African-American students are limited with resources at home, meaning the tools schools provide are the main resources helping them prepare for college. Based on these findings, only White students are getting better prepared for college. As a result, this particular group has a broader range of opportunities, while others decrease their opportunities to attain a college degree.

Another study focused on improving college access and readiness for low-income and minority students in urban high schools. The study emphasized that enrolling in college is one part of closing the degree attainment gap, but improving students' college completion rates must also be focused on. It was found that less than one-third of Latino young adults had attended college and only 10.5% had completed a bachelor's degree or higher (Roderick et al., 2009). When analyzing college readiness as a combination of course-taking and standardized testing, only about one-third of 2002 graduates met minimum college readiness criteria with African

Americans meeting 23% and Latino students meeting 20% compared to 40% of White students (Roderick et al., 2009). These findings support the conclusion that African American and Latino students are the least advantaged compared to White students. The numbers show that Latino students are not thriving in the courses they take or on standardized testing. This indicates that they are not receiving the proper resources to thrive in those areas, which decreases their college readiness.

These studies present how students face the obstacle of needing more college preparation, leading to difficulties in completing their college degree. Students in minority and low-income groups are the ones suffering from insufficient resources that seem not to be preparing students in these groups. Research should focus on attaining a deeper understanding of how resources offered in school can best set a student up for the future.

### **Theory and Argument**

Based on the research presented, Hispanic students need more educational resources to thrive in college preparation. My hypothesis suggests the more unified school districts invest in their students, the further prepared students are for college. The independent variables include school districts' expenditures for personnel salaries and classroom resources such as books and supplies. Other important components of my study are data from academic school years, the total number of students enrolled in each district, and spending per pupil within each expenditure. The dependent variable is the college preparedness scores for Hispanic students.

The first part of the causal mechanism in my research is based on the certificated personnel salaries, which is how much teachers, counselors, and staff are overall getting paid. By school districts spending more on teacher and staff salaries, two outcomes can create an impact

on Hispanic students' preparation for college. One outcome will consist of more individuals wanting to become teachers or counselors, which can decrease personnel shortages at schools. This means that students can have more significant opportunities to meet and receive guidance in classes, learn about future college endeavors, and have support in additional programs aside from class. Another outcome can be that by increasing personnel spending, teachers and counselors can solely focus while being incentivized to create college prep courses, with advanced coursework, akin to college classes.

The second area of the causal mechanism is on books and supplies expenditures, which is how much is spent on textbooks, technology-based materials, and other tools that support activities in the classroom. A large percentage of Hispanic students can have limitations in the tools provided in their household, making it more challenging to prepare for college compared to other groups of students. School districts spending more on this can enhance a student's learning experience in various forms, ultimately leading to skills that can serve in future college courses, extracurriculars, internships, and programs. By having access to exclusive materials such as textbooks and books, Hispanic students can improve their learning, writing, reading, and skills in different subjects, which could later benefit them in completing rigorous college courses. By having access to technology in the form of a computer and online access, students can expose themselves to resources such as online tutoring and websites that improve students' skills and strengthen their forms of studying for tests. Students can also gain more information by having the opportunity to research what college can consist of, learn about online college credit courses offered, and access different outlets that provide further guidance.

In addition to these expenditures impacting college preparedness scores among Hispanic students, it's crucial to consider other factors that can affect these scores, including parental

educational attainment and income. It is reported that twenty percent of students completed their degrees with parents who had obtained no college experience compared to 60% of students who had at least one parent holding a bachelor's degree (Rivera, 2022). With a parent having a college education, a student attains further preparation by being provided with insight and knowledge on important deadlines for college including obstacles that come along the way. Students can also receive more encouragement on the importance of obtaining a college degree and guidance throughout the steps to do so. In being guided by family members at home, college preparedness among a Hispanic student can also increase in addition to the impact external expenditures can have.

An additional factor that can impact college preparedness among Hispanic students is income, which will be incorporated into my data. By having the opportunity to afford programs for extra assistance, extracurricular activities, or tutoring outside of school, these resources can support a student's preparation for college. It was reported that eighty-one percent of students in the highest-income quartile enrolled in post-secondary schools while only forty-five percent from the lowest-income quartile were enrolled (Braren, 2016). It was also stated that seventy-seven percent of people in the highest-income quartile obtained a bachelor's degree and only nine percent in the lower-income quartile had obtained a degree (Braren, 2016). Hispanic students who are part of the higher end of the income quartile can afford more resources such as in-person tutoring, summer college courses in known universities, and programs focused on preparing for rigorous tests. These factors should be further studied to understand the impacts they have on college preparedness among Hispanic students.



## **Research Design and Data**

This research is an overtime analysis from the academic years 2017 to 2020 based on quantitative data obtained from forty-eight unified school districts in Los Angeles County. The unified school districts in this study focus on the grade levels from kindergarten through grade twelve. I will focus on studying the relationship between the amounts invested in certificated personnel salaries, books and supplies, and college preparedness scores among Hispanic students. I was unable to include college preparedness scores for Wiseburn Unified School District as information was unavailable due to the district having fewer than ten students. It also would have been ideal to do further research for the academic years after 2020, but data was not published due to COVID-19.

The data for the independent variables was obtained from the website of Education Data Partnership, which takes information from the California Department of Education. The website provides tables with financial data for every unified school district on certificated personnel salaries including books and supplies expenditures. The total number calculated for certificated personnel salaries is measured by how much is spent on the salaries for certificated personnel employed to teach pupils in the district, pupil support, supervisors, and administrators. The total number calculated for how much is spent on books and supplies is measured by how much is spent on approved textbooks, workbooks, reference materials, technology-based materials, instructional supplies used in the classroom, and food used in food-service activities. Moreover, the values of my independent variables range between \$6,018,795 and \$2,999,269,031.00 for personnel salaries while books/supplies expenditure values range from \$524,006.00 and \$331,231,595.00 (Education Data Partnership, 2024). My data also contains the total enrollment of students obtained from the Data Quest website including expenditures per pupil calculated by

dividing the total for each expenditure and total students enrolled. Although the website included data on other types of expenditures such as employee benefits or services for utilities, I focused on the two main expenditures that could further impact college preparedness scores.

The data for the dependent variable was obtained from the website of California School Dashboard, which provides college preparedness scores within each school district among Hispanic students. In my data set, the scores take on values ranging from 9.30% to 77.60% (California School Dashboard, 2023). The college preparedness scores are distributed as percentages and indicated through completing rigorous coursework, passing challenging exams, and receiving a state seal. Therefore, college preparedness scores are measured by students meeting at least one of the criteria: receiving a score of level 3 “standard met” or higher on both English language and mathematics in Smarter Balanced Summative Assessments; receiving a score of three or higher on two advanced placement exams; receiving a score of four or higher on two international baccalaureate exams; completing 2-3 semesters or quarters of college credit courses with a grade of a C minus or better; receiving a state seal of biliteracy with a score of level three or higher in English on smarter balanced summative assessments; and meeting course requirements for admission to a UC or CSU school along with one of the measures mentioned (Measures of College Readiness, 2023). This criteria has been approved by the State Board of Education to measure college preparedness.

Additionally, I wanted to incorporate an additional variable that could affect college preparedness scores. My data includes the median household income for each unified school district in Los Angeles County by zip code. I gathered my data by researching the zip code of each school district and its income through the Los Angeles Almanac website. It is important to note that data was not available for the years 2018 to 2019, meaning that income was only

included for two years. Due to limited time and access to data, I was unable to retrieve information on parental educational attainment for Hispanic students, which is another variable I would have included.

While conducting the study with quantitative data sets, the strength of the measurements for both expenditures and college preparedness scores was that both data sets had reliable numbers when measuring. The numbers for certificated personnel salaries as well as books and supplies were measured the same way each year. The numbers were reliable as a consistent measure was followed by calculating the total for each expenditure each academic year. Similarly, the numbers for college preparedness scores were also reliable as the same criteria deeming students college-ready was used to determine the scores each year, meaning the measurement of the dependent variable did not change. When adding my additional variable of median household income, the measurements were reliable as I obtained the unified school district's income specific to the zip code, meaning the data was accurate to the district's location.

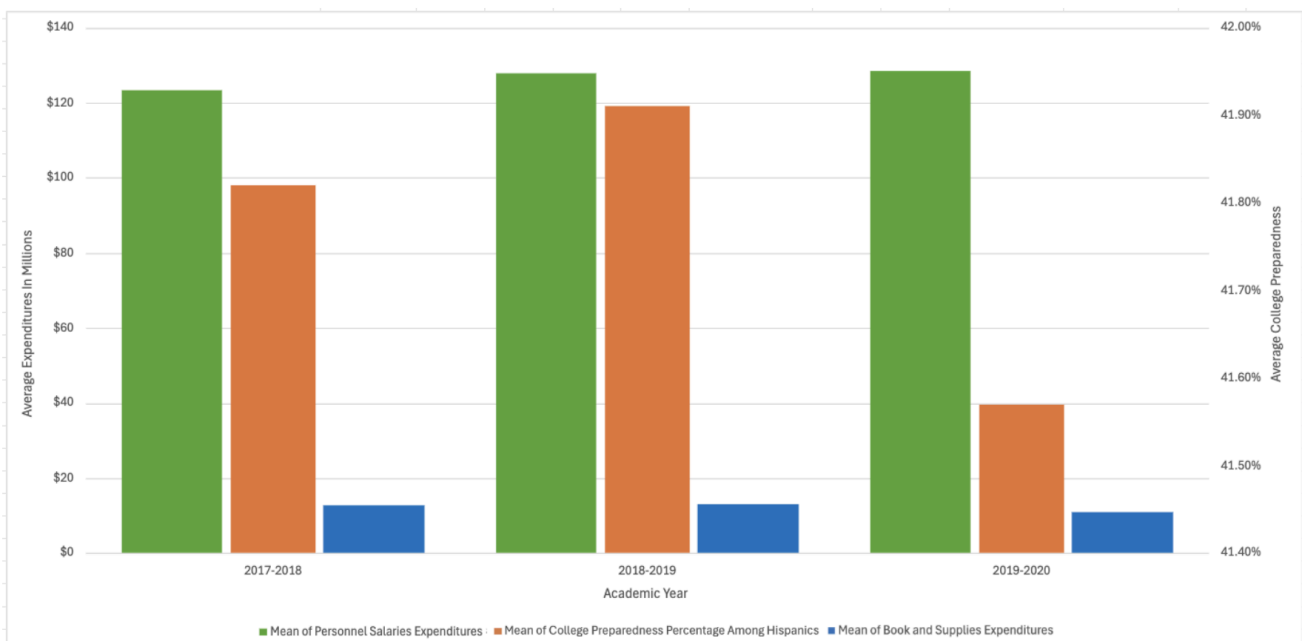
There were concerns about the validity of measuring the dependent variable of college preparedness scores among Hispanic students. College preparedness was measured by students passing several tests and assessments, completing college courses, and meeting requirements, providing a sense of college rigor. However, this measurement could be weak as it can be unfair to measure college preparedness on passing assessments when students can underperform on tests or do not have additional tools to prepare. Students may also not have the opportunity or resources to attend and complete college credit courses. Furthermore, I would have obtained feedback through student surveys on their preparedness for college, but due to time restrictions, I was unable to do so.

In regards to the median household income, there was a weakness in measuring the variable as there was only one zip code acquired for each district when there could be additional zip codes around the area that can increase or decrease the district's income. It is important to note that due to not having the data for median household income specifically for Hispanic families, I was unable to measure income specific to Hispanic families. In addition, two of my models (figures 2 and 3) incorporate low, medium, and high income levels. These levels were divided into the 33rd percentile (\$64,000), 66th percentile (\$89,000), and 99th percentile. An obstacle I faced in this section was having to place incomes into exact levels without further research being accounted for. Therefore, as income levels were distributed into three equal percentiles, there could be a need for improvement in how the different incomes were defined.

### **Findings**

For my research, I created a bar graph, figure 1, to demonstrate a visual of the average amount school districts' had for expenditures and the impact on college preparedness scores. Based on the data gathered throughout the three academic years, my study showed that on average personnel salaries were slightly increasing while books and supplies expenditures increased in the first two years and then decreased in the third year. On the other hand, the scores had a small increase in the first two years and then a slight decrease in the third year. I also developed two scatter plots, figures 2 and 3, that displayed the correlation between books/supplies expenditures including personnel salaries per pupil and college preparedness scores. My study showed that the more spent on books and supplies, college preparedness scores slightly decreased and the more spent on personnel salaries led to a slight increase in the scores.

However, median household income was also included where the correlations varied. Thus, the following models will go into further detail about the findings of my study.



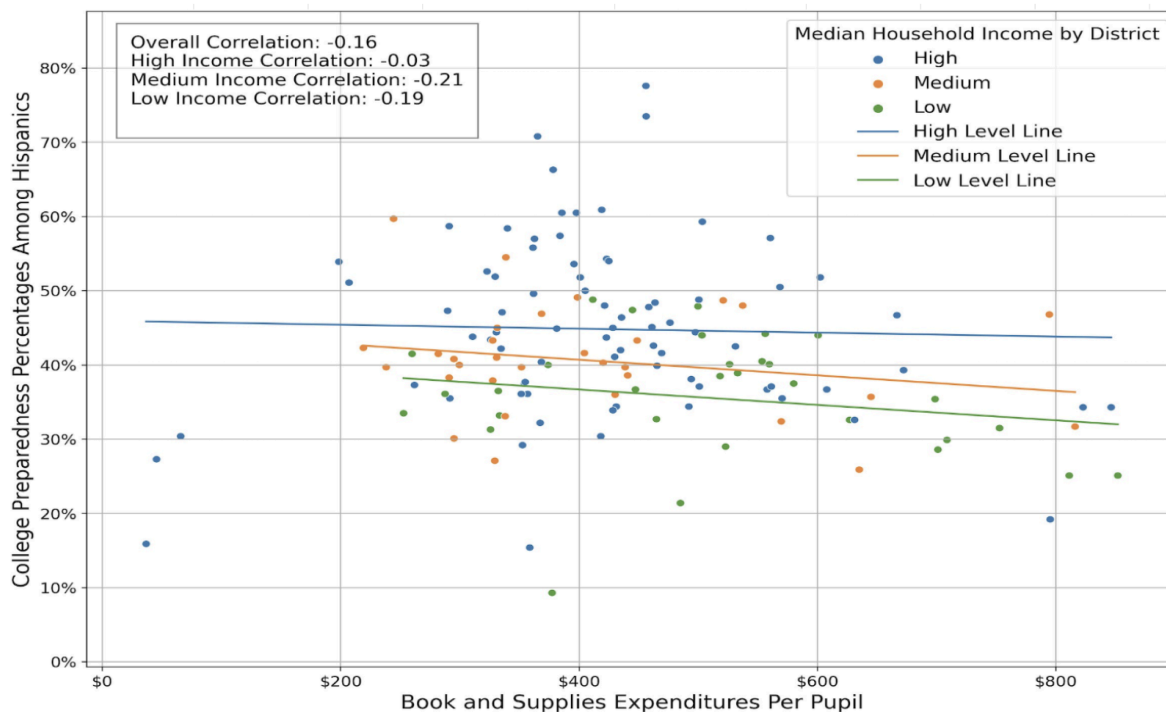
**Figure 1. LA Unified School Districts Average Expenditures in Personnel Salaries & Books/supplies vs. College Preparedness in Hispanics (2017-2020)**  
**Data Source: Education Data Partnership and CA School Dashboard**

Figure one demonstrates the average amount 48 school districts were spending during the three academic years on personnel salaries which are the orange bars including books and supplies which are the blue bars. The y-axis on the left shows the average amount for expenditures in millions and the x-axis shows the academic years from 2017-2020 to provide an overtime visual. The average college preparedness scores among Hispanic students are also

included in the orange bars and the y-axis on the right which has scores ranging from 41% to 42%.

Regarding personnel salaries, from 2017 to 2018, \$123,404,958.00 was spent with an increase in 2018-2019 with an expenditure of \$127,784,787.15. In the last academic year, 2019-2020, there was a slight increase in personnel salaries with the number being \$128,497,605.48. When it came to books and supplies expenditures, from 2017 to 2018, \$12,842,657.60 was spent with a slight increase in 2018-2019 of \$12,959,912.02. However, in the last year of 2019 to 2020, there was a small decrease with the number being \$10,963,201.40. Moreover, as these expenditures were increasing and decreasing, the average college preparedness scores were slightly going up and down as well. From 2017 to 2018, 48 school districts had a 41.82% college preparedness score with a slight increase to 41.91% in 2018 to 2019. From 2019 to 2020, there was a slight decrease in the scores with the number being 41.57%. It is important to observe that although the average college preparedness scores have small increases and decreases, the overall score ranges from 41% to 42% with Hispanic students still needing to meet half of being prepared.

**Figure two displayed below**



**Figure 2. Books and Supplies Per Pupil vs. College Preparedness in Hispanics (2017-2020)**  
**Data Source: Education Data Partnership, CA School Dashboard, and Los Angeles Almanac**

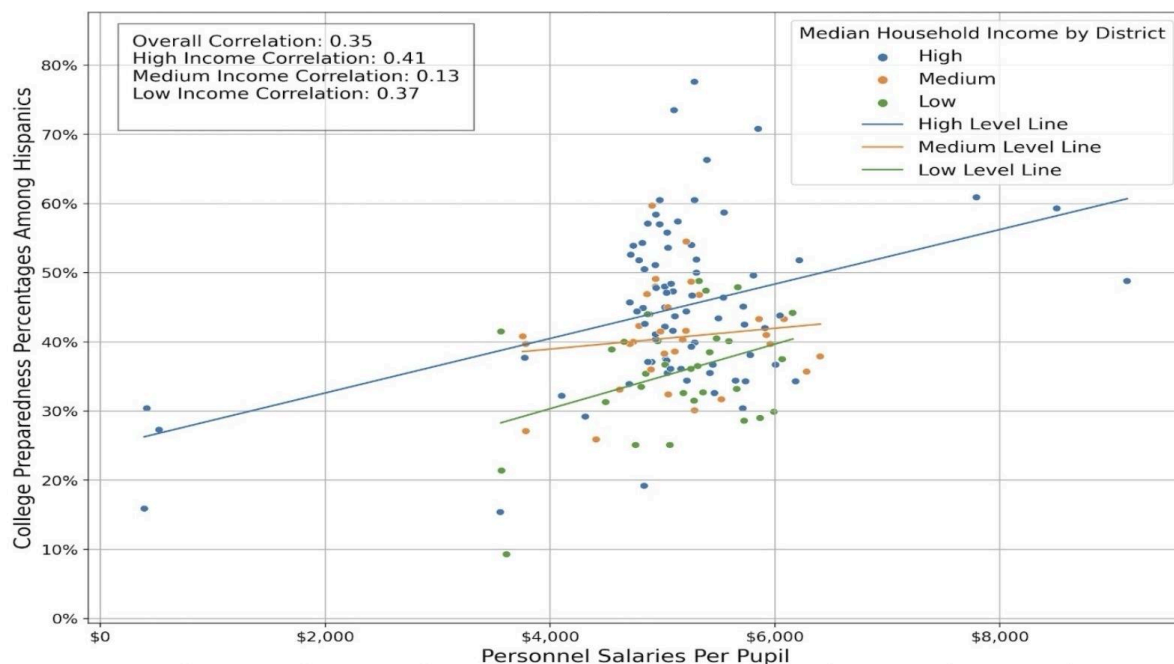
Figure two analyzes the relationship between books and supplies expenditures per pupil and college preparedness scores among Hispanic students from 2017 to 2020. The data points, constituted by the school districts, show an overall slight negative correlation of  $r = -0.16$ . In other words, as books and supplies increased, college preparedness scores slightly decreased. When observing the data points on the scatter plot, it shows that the expenditures spent on books and supplies per pupil are in the same spending range, between \$300 and \$500, correlated with an average college preparedness of around 48%. While the amount spent on book and supply expenditures is pretty spread out, with a minimum of \$70 and a maximum of \$900, the data reflects that the effect of such spending is not supporting students, as they mostly stay within the

range of 30-50% college preparedness. This further indicates that the act of spending money on books and supplies is not enough when it comes to preparing Hispanic students for college.

By adding the variable of median household income to the scatter plot, the data points (school districts) are matched with the color based on their income level group. It is shown that there are more school districts with high median household income compared to low and medium income levels. Moreover, the correlation lines display that school districts with a low-income level have  $r = -0.19$ , those with a medium-income level have  $r = -0.21$ , and those with a high-income level have  $r = -0.03$ . Based on these correlation numbers for income, books, and supplies expenditures have a slight negative correlation between school districts with low and medium median household incomes and college preparedness scores. In other words, books and supplies were decreasing college preparedness among Hispanic students in districts with low and medium income levels. When it came to school districts with a high median household income, there was a near zero correlation meaning books and supplies were not increasing or decreasing college preparedness scores among Hispanic students with a high income level.

**Figure 3 displayed below**





**Figure 3. Personnel Salaries Per Pupil vs. College Preparedness in Hispanics (2017 to 2020)**  
**Data Source: Education Data Partnership, CA School Dashboard, and Los Angeles Almanac**

Figure three analyzes the relationship between personnel salaries per pupil and college preparedness scores among Hispanic students from 2017 to 2020. The data points, which are also school districts, show an overall slight positive correlation of  $r = 0.35$ . In other words, as personnel salaries increased, college preparedness scores slightly increased as well. By looking at the data, it is apparent that most districts have personnel salaries per pupil set at around \$5,000, correlating to a wide range of college preparedness scores, from 19% up to 78%. This means several variables are at play in the college preparedness of a student that are not necessarily captured by personnel salary per pupil. Although a positive correlation of 0.35 remains, it may be due to the outliers in the dataset, such as spending below \$4,000, generally relating to being right at, or below 40% college preparedness while above \$7,000 spending led to around or above the 50% college preparedness mark. In the most extreme instances of per-pupil spending, there is an observable impact on college preparedness as the correlation strengthens

between the two variables, lower spending leads to lower preparedness and higher spending leads to higher preparedness.

By adding the variable of median household income to the scatter plot, the data points (school districts) are also matched with the color based on their income level group. In adding another layer to the graph, other factors can be studied to further understand the data. The graph demonstrates that there are slightly more school districts with high median household income compared to low and medium income levels. Moreover, the correlation lines display that school districts with a low-income level have  $r = 0.37$ , those with a medium-income level have  $r = 0.13$ , and those with a high-income level have  $r = 0.41$ . Based on these correlation numbers for income, personnel salaries have a slight positive correlation between school districts with high or low median household incomes and college preparedness. In other words, personnel salaries slightly increased college preparedness among Hispanic students in districts with high or low-income levels. When it came to school districts with a medium median household income, there was a near zero correlation meaning personnel salaries were not increasing or decreasing among Hispanic students in districts with a medium income level.

Based on the analyses of my figures, book and supply expenditures did not significantly increase college preparedness, however, personnel salaries did have a slight positive correlation of 35%. The data demonstrates a small correlation overall between the two variables and college preparedness among Hispanic students. Therefore, my hypothesis was incorrect based on the data demonstrating the slight negative and positive correlations between the two expenditures and college preparedness among Hispanic students.

## **Implications**

Based on the research and findings, personnel salaries and books/supplies expenditures did not significantly impact college preparedness among Hispanic students. Although this data does not imply that school districts should stop investing in these areas for students, future research should focus on understanding how these resources can be more effective. As my analysis demonstrates that more money spent does not necessarily lead to higher college preparedness, school districts should question why current tools are not helping Hispanic students. Additionally, other factors that could be affecting college preparedness should also be analyzed. When it comes to books and supplies, there can be Hispanic students who need additional help in navigating a language barrier, learning how to read difficult texts, or writing essays which is support they can only gain at school. As a result, it no longer becomes about spending more on books and supplies for students, but about making sure that the tools are truly helping each student. When it comes to personnel salaries, there could be school districts that pay teachers more, but by paying more keep a smaller staff. This could result in the student and teacher ratio remaining high, leading to Hispanic students not receiving individual assistance in preparing for college.

## **Conclusion**

Furthermore, since the expenditures analyzed in my research did not significantly affect college preparedness for Hispanic students, school districts need to develop new questions. It is important to develop questions such as why these resources are not increasing college preparedness, whether there are any other factors affecting Hispanic students' educational journey, and if there are any other resources that schools can provide to ensure the effectiveness

of these expenditures. If school districts stop assuming that resources impact all students the same way, additional guidance in these expenditures can be given to Hispanic students, ultimately raising the number of Hispanic students applying to college and graduating with a college degree.

To conclude, more spending on books and supplies did not have any real effect on college preparedness and while personnel spending had a higher correlation to preparedness, it still was not as drastic as hypothesized. Since the expenditures analyzed in my research did not create a significant effect on college preparedness for Hispanic students, school districts need to develop new questions and look at more effective ways to prepare students for college. School districts can then redirect their expenditures to cater to such methods. It is important to question why these resources are not increasing college preparedness, research alternate factors affecting Hispanic students' education, and seek resources that can ensure the effectiveness of these expenditures. By school districts understanding that students have different needs, more effective expenditures, and resources can lead to an increase in college applications submitted including college degrees obtained by Hispanic students.

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