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CONTEXT

Data collected via the Civil Rights Data Collection (CRDC) survey exists to aid the mission of the U.S Department of Education's Office of Civil Rights (OCR). The OCR strives to ensure that recipients of the Department's federal financial assistance do not discriminate based on race, color, national origin, sex, or disability. Using the 2017-2018 CRDC student enrollment data, it is possible to investigate discriminatory practices within public education institutions and to predict indicators of educational opportunity.

STATISTICAL ANALYSIS

The AnoVa test uses a test statistic referred to as the p-value to investigate the significance between variables; when this value exceeds 0.05, the relationship between two variables is deemed insignificant. Using multiple analysis of variance (AnoVa) tests, it is plausible to conclude that if a barrier to limited English proficiency programs based on gender exists within these public institutions–it is extremely insignificant. There was no interaction statistical relationship between gender for preschool enrollment, total student enrollment, student enrollment in Limited English Proficiency (LEP) Programs, or students with disabilities. Essentially, neither gender is more likely to dominant the enrollment for any of these categories because all p-values for the relationships between gender and each category exceeded 0.45– which is extremely insignificant.

After using both a two-way AnoVa test and a Tukey Test, a test used to indicate significance in the difference of means for multiple variables, it is reasonable to assume there is an insignificant barrier or no barrier to accessing this supplemental learning program based on gender, race, and/or state. Across all races (White, Black, Hispanic, Asian, Native, Pacific/Hawaiian, Biracial, and 2+), the enrollment of students in LEP programs versus the enrollment of students of who are established as having limited English proficiency is 4.5 to 5 for both male and female students. This implies most students, at least 85%, who need access to supplemental English learning are receiving the support. The means of female students enrolled compared to the means of male students enrolled had a p-value of 0.48. When evaluating program access based on state, there was no significant difference in enrollment, the p-value evaluating the relationship between state and student enrollment based on race was 0.42, 0.45, 0.46, 0.48, 0.43, 0.44, 0.41, and 0.44 for white, black, Asian, Hispanic, Pacific/Hawaiian, Native, Biracial, and multiracial students respectively.

LIMITATIONS & AREAS FOR FURTHER RESEARCH

Despite producing results within reason, further investigation upon predictors would be extremely beneficial. For example, it would be useful to have access to students' home-life factors such as household income, guardians, transportation, and commute to further investigate barriers to academic success and educational opportunity. With access to more quantitative variables, it becomes possible to build a plausible linear regression model to predict student enrollment in courses, advanced courses, athletic programs, and school programs as well as the volume of students likely to be harassed, bullied, or to miss school.