

Example Summary of Previous Analysis

Prior to analysis, both SES and student achievement (ACH) were converted to z-scores (standard normal distribution) and entered simultaneously into the equation. With an initial $-2LL$ of 9,967.24 and final $-2LL$ of 8,062.99, the model represented a significant improvement in fit ($\chi^2_{(2)} = 1,904.52, p < .0001$). As you can see in Table 8.10, both SES and ACH were significant, unique predictors of graduation (student sex was not found to be significant after controlling for these variables and will not be discussed further). Specifically, after controlling for all other variables in the analysis, as SES increased, the probability of graduation increased (OR = 2.00 [95% CI = 1.87, 2.15]). Similarly, after controlling for all other variables in the analysis, increases in student achievement were associated with increased probability of graduation (OR = 2.90 [95% CI = 2.66, 3.18]). Because these variables were standardized, each OR represents the increase in odds of graduation for every increase of 1 SD in either SES or ACH.

To put these effects into perspective, students who come from families with SES 2 SD below the mean have an 84.93% chance of graduating high school, whereas students who come from families that are 2 SD above the mean in SES have a 98.91% chance of graduating (assuming average achievement, held constant). Likewise, holding SES constant at the mean, a student with achievement scores 2 SD below the mean would have a 72.85% chance of graduation, whereas a student with achievement scores of 2 SD above the mean would have a 99.48% chance of graduation.