

## Example Summary of Analysis

To examine the curvilinear interaction between weight gain in the mother (converted to z-scores; zMOMWT) and race (dummy coded with White as the comparison group, DUM1 representing African American/Black, DUM2 representing Native American/Alaskan Native, DUM3 representing Asian or Pacific Islander), zMOMWT was squared and cubed, and interactions were computed between zMOMWT, zMOMWT<sup>2</sup>, and zMOMWT<sup>3</sup> and each dummy variable to fully represent both the linear and curvilinear components of the main effects and interactions. These terms are fully displayed in Table 10.5b. The groups of variables were entered in a blockwise fashion: simple effects of zMOMWT and race; the curvilinear terms of zMOMWT; the three terms that represent the interaction between zMOMWT and race; the three terms that represent the interaction between zMOMWT<sup>2</sup> and race; and the three terms that represent the interaction between zMOMWT<sup>3</sup> and race.

Following the initial analysis, standardized residuals were examined. Cases with standardized residuals greater than  $|4|$  were removed ( $N = 34$  of 24,490, or 0.13% of the sample). In addition, one case with an unusual predicted value (more than 8 *SD* from the mean and far distant from all other cases) was removed. The model was again computed, and the normality of the residuals improved (original skew = 0.12, kurtosis = 1.01; final skew = 0.11, kurtosis = 0.42), meeting the assumption of normality. The plot of predicted values versus residuals was also examined, supporting the assumption of homoscedasticity.

Results indicated a significant but relatively weak effect overall. As you can see in Table 10.5c, the final step with the cubic interaction terms was significant, although they accounted

*(Continued)*