



6. How many variance-covariance elements would there be in the tau matrix for this analysis?

7. Interpret the results presented in Table 2. What are the main findings? Discuss effects of level 1 variables, level 2 variables, and cross-level interactions on wages.

Table 2  
Effects of individual and job-level characteristics on earnings (logged): 2-level hierarchical linear regression results

Variable	Model 1 coeff.	Model 2 coeff.	Model 3 coeff.	Model 4 coeff.	Model 5 coeff.
<i>Intercept (<math>\beta_0</math>)</i>					
Intercept ( $\gamma_{00}$ )	2.353*	2.383*	2.397*	1.896*	1.890*
Job % Black ( $\gamma_{01}$ )	—	—	-.169*	—	.068*
Job rank, local hierarchy ( $\gamma_{02}$ )	—	—	—	.010*	.010*
Job % Black job rank	—	—	—	—	-.001
<i>Black (<math>\beta_1</math>)</i>					
Intercept ( $\gamma_{10}$ )	—	-.051*	-.039*	.030*	.091*
Job % Black ( $\gamma_{11}$ )	—	—	-.083*	—	-.299*
Job rank, local hierarchy ( $\gamma_{12}$ )	—	—	—	-.002*	-.002*
Job % Black $\times$ job rank	—	—	—	—	.004*
<i>Control variables included</i>	None	Level-1	All	All	All
Level-1 $R^2$	—	.203	.336	.407	.404
Variance components					
Level-1 variance ( $\sigma^2$ )	.269	.237	.237	.236	.237
Intercept ( $\tau_{00}$ )	.154	.100	.044	.015	.015
Intraclass correlation coefficient ( $\rho$ )	.364	.297	.157	.060	.060

Notes. \* $p < .001$  (two-tailed tests).

8. Interpret variance component information presented in the table.

9. How are the intraclass correlations calculated?

10. How did the author calculate the R squared presented in the table?

11. What information about variance components is missing from the table? What additional insights would that information provide us?

12. Using HLM6, how would you generate a graph like the one presented in Figure 1?

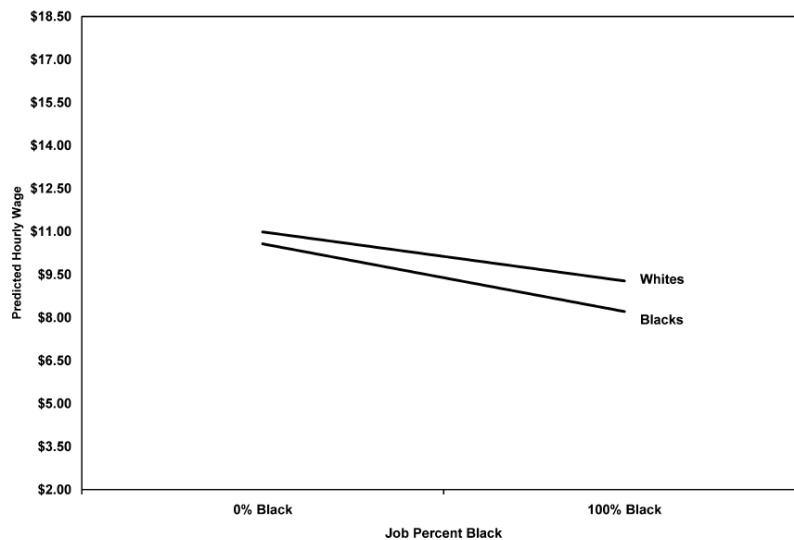


Fig. 1. Association between job percent Black and wages, by race. *Note.* Predictions based on Model 3 of Table 2.