

The following table is the Excel regression output for a regression using the *natural log of wage and salary income* as the dependent (Y) variable. The sample is restricted to married women. The X variables (regressors) are defined as follows:

- SCHOOL = years of schooling
- EXPER = years of potential work experience (age - school - 6)
- KID6t18 = 1 if the woman has at least one child ages 6 to 18, = 0 otherwise (dummy variable)
- KIDun6 = 1 if the woman has at least one child under 6, = 0 otherwise (dummy variable)

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.428305153
R Square	0.183445304
Adjusted R Square	0.165499047
Standard Error	0.578637787
Observations	187

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	13.69008956	3.422522	10.22193	1.73171E-07
Residual	182	60.93754742	0.334822		
Total	186	74.62763698			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	8.380781572	0.310634337	26.97957	1.65E-65	7.767873592	8.993689552
SCHOOL	0.106887582	0.017790349	6.008178	1E-08	0.071785709	0.141989455
EXPER	0.012381916	0.004453864	2.780039	0.006007	0.003594064	0.021169768
KID6t18	0.042634477	0.091152743	0.467726	0.64054	-0.137217641	0.222486595
KIDun6	0.02864473	0.130065649	0.220233	0.825937	-0.227985862	0.285275323

Answer the following questions based on the regression results:

1. Interpret the R Square in one sentence.
2. Does the regression provide evidence that education is associated with higher earnings? Explain carefully.
3. By how much will earnings increase if a woman has one more year of potential work experience?
4. Is there evidence that having children around affects earnings? If so, how? Explain carefully.
5. Write out an equation for the log of earnings as a function of the variables. Using the estimates, predict the log earnings and actual dollar earnings of a woman with 14 years of school, 10 years of experience, and children ages 7, 9, and 12.
6. A labor economist proposes that the presence of children could reduce the return to potential job experience. How could you change the above regression to test this hypothesis? (I.e., what variables would you use?)