Quiz 5

Instructions

For questions 6-10, you need to dataset hprice2 from wooldridge library in R.

Suppose you are interested in the effect of pollution on House Prices. You use dataset available in R, **hprice2** from **wooldridge library**, for 506 regions on *nox* (nitric oxide concentration in the air, parts per 100m), *crime* (crimes committed per capita), *price* (median house prices in the region in 1000 \$), *rooms* (average number of rooms), *dist* (weighted distance to 5 employment centers), and *proptax* (property tax per \$1000) and *stratio* (the average student to teacher ratio in the school district).

You estimate 3 regressions:

Regr 1: Regress house prices (in thousands USD) on nox, stratio

Regr 2: Regress house prices (in thousands USD) on nox, stratio, rooms

Regr 3: Regress house prices (in thousands USD) on nox, stratio, rooms, and dist

Display all regression results into a stargazer table with heteroskedasticity robust standard errors.

The overall regression F-statistic tests the null hypothesis that all slope coefficients and the intercept are zero. the slope coefficient of the variable of interest is zero, but that the other slope coefficients are not. the intercept in the regression and at least one, but not all, of the slope coefficients is zero. all slope coefficients are zero.

Question 2 1 / 1 pts

es	sor that controls for the omitted variable bias:
	The new estimate will be larger
	The new estimate will be smaller.
	The new estimate will remain unchanged.
	Can't determine

Question 3	1 / 1 pts
If the estimates of the coefficients of interest change substantially across specifications,	
then you should change the scale of the variables to make the changes appear to be smaller.	
then choose the specification for which your coefficient of interest is most significant.	
then this can be expected from sample variation.	
then this often provides evidence that the original specification had omitted variable bias.	

Question 4 1 / 1 pts

The following linear hypothesis can be tested using the F-test with the exception of

- \bigcirc β2 = 1 and β3= β4/β5.
- β1 + β2 = 1 and β3 = -2β4.
- β 2 =0.
- \bigcirc β0 = β1 and β1 = 0.

Question 5 1 / 1 pts

Suppose you have two regression models and you decide to test which model fits the data better. You use a F-test with 2 restrictions and the value of the F-test is 8.01. At 5% significance level, you conclude that the unrestricted model fits the data better than the restricted model.

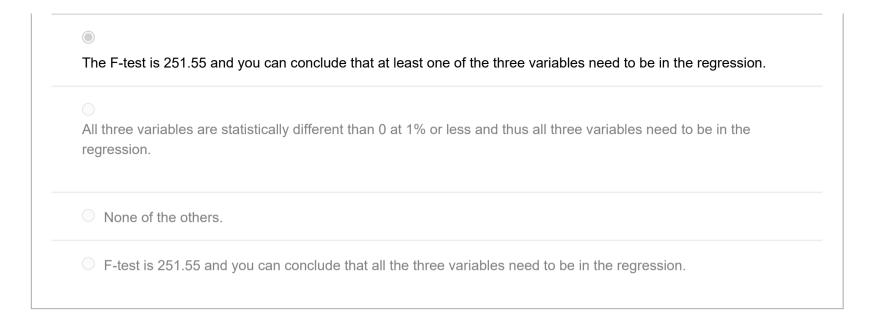
False

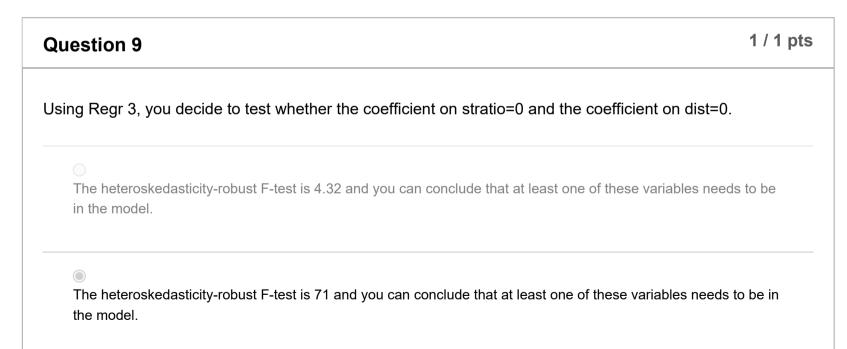
Question 6	1 / 1 pts		
When comparing the estimated effect of pollution on house prices between Regr 1 and Regr 2, you ce that:	comparing the estimated effect of pollution on house prices between Regr 1 and Regr 2, you conclude		
Regr 1 suffers from downward omitted variable bias because larger houses tend to be located in regions with lower levels of pollution.			
Regr 1 suffers from upward omitted variable bias because larger houses tend to be located in regions with low levels of pollution.	er		
Regr 2 suffers from downward omitted variable bias because larger houses tend to be located in regions with lower levels of pollution.			
None of the others.			

Question 7	1 / 1 pts
When comparing the estimated effect of pollution on house prices between Regr 2 and Regr 3, you that:	u conclude
Regr 2 suffers from upward omitted variable bias because regions located further away from employment content to be regions with lower levels of pollution	enters
Regr 3 suffers from upward omitted variable bias because regions located further away from employment cotend to be regions with lower levels of pollution.	enters
Regr 2 suffers from downward omitted variable bias because regions located closer to employment centers be regions with higher levels of pollution.	tend to
There is no omitted variable bias in either two regressions.	

Question 8 1 / 1 pts

Using Regr 2, you want to test the joint hypothesis that the coefficient on nox =0 and coefficient on stratio=0 and coefficient on rooms =0.





The heterosk	neteroskedasticity-robust F-test is 123 and you can conclude that at least one of these variables needs to					
in the model.						
None of th	e others					
- 140110 01 ti	oution.					

Using Regr 3, you decide to test whether the coefficient on stratio is equal to the coefficient on dist. The heteroskedasticity-robust F-test is 71 and you fail to reject the null hypothesis at 5% level. The heteroskedasticity-robust F-test is 2.11 and you fail to reject the null hypothesis at 5% level. The heteroskedasticity-robust F-test is 2.11 and you can reject the null hypothesis at 5% level. The heteroskedasticity-robust F-test is 71 and you can reject the null hypothesis at 5% level.

Quiz Score: 10 out of 10