The following regression results from a regression of the log of wage on years of education, years of potential experience, and the square of potential experience using data from the 1991 Current Population Survey.

```
. regress lwage educ exper expersq

      Source |       SS           df       MS      Number of obs   =     3,286
-------------+----------------------------------   F(3, 3282)      =    281.59
       Model |  185.380638         3   61.7935461   Prob > F        =    0.0000
    Residual |  720.208763     3,282   .219442036   R-squared       =    0.2047
-------------+----------------------------------   Adj R-squared   =    0.2040
       Total |  905.589401     3,285   .275674095   Root MSE        =    .46845


       lwage |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        educ |   .0989959   .0035216    28.11   0.000     .092091    .1059007
       exper |   .0197854   .0032841     6.02   0.000    .0133463    .0262246
     expersq |  -.0003472    .000077    -4.51   0.000   -.0004981   -.0001963
       _cons |   .6504143   .0587319    11.07   0.000    .5352594    .7655692
```

1. Interpret the signs of the coefficients on experience and its square. Sketch roughly the shape of the estimated relationship between log-wage and experience for a given level of education. Is this what you would expect?

2. Calculate the marginal effect of an additional year of experience for someone with *exper* = 10 and for someone with *exper* = 20. Do these results conform to the shape of your relationship in question 1?

3. The effects of experience for question 2 do not depend on the level of education. Should they? How could you change the model to incorporate this?