```
sectorconst     1.4355     1.1312    1.27  0.20500
sectormanag     3.2711     0.7668    4.27  2.4e-05 ***
sectormanuf     0.8063     0.7311    1.10  0.27064
sectorother     0.7584     0.7592    1.00  0.31829
sectorprof      2.2478     0.6698    3.36  0.00085 ***
sectorsales    -0.7671     0.8420   -0.91  0.36273
sectorservice  -0.5687     0.6660   -0.85  0.39356
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 4.33 on 523 degrees of freedom
Multiple R-squared: 0.302,        Adjusted R-squared: 0.289
F-statistic: 22.6 on 10 and 523 DF,  p-value: <2e-16
```

The adjusted difference between the sexes is \$1.94 per hour. (The $R^2 = 0.30$ from this model is considerably larger than for `mod0`, but still a lot of the person-to-person variation in wages has not be captured.)

It would be wrong to claim that simply including a covariate in a model guarantees that an appropriate adjustment has been made. The effectiveness of the adjustment depends on whether the model design is appropriate, for instance whether appropriate interaction terms have been included. However, it's certainly the case that if you **don't** include the covariate in the model, you have **not** adjusted for it.

The other approach is to subsample the data so that the levels of the covariates are approximately constant. For example, here is a subset that considers workers between the ages of 30 and 35 with between 10 to 12 years of education and working in the sales sector of the economy:

```
> small = subset(cps, age <=35 & age >= 30 &
                      educ>=10 & educ <=12 &
                      sector=="sales" )
```

The choice of these particular levels of `age`, `educ`, and `sector` is arbitrary, but you need to choose some level if you want to hold the covariates appproximately constant.

The subset of the data can be used to fit a simple model:

```
> mod4 = lm( wage ~ sex, data=small)
> summary(mod4)

...
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    4.500      0.500     9.0     0.07 .
sexM           4.500      0.866     5.2     0.12
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.707 on 1 degrees of freedom
Multiple R-squared: 0.964,        Adjusted R-squared: 0.929
```