

## Chapter 1

As a prelude to structural equation modeling a traditional regression analysis could be useful as a refresher. Perhaps you should also read Appendix A before you solve the exercise.

**1.1.** Have a look at the models (a) and (b) from Example 1.1.

a) As pointed out in Section 3 in Appendix A, one-sided tests are more meaningful than two-sided when testing model parameters. This is one of several good reasons for offering some thoughts on the likely interrelations between the model variables. Do that, and write down your conclusions.

b) Estimate the two models using SPSS. Interpret and compare the results.

You can download the data: bwght.sav.

The variables in the data set are:

faminc	1988 family income, \$1000s
cigtax	cigarette tax in home state, 1988
cigprice	cigarette price in home state, 1988
bwght	birth weight, ounces
fatheduc	father's years of education
motheduc	mother's years of education
parity	birth order of child
male	=1 if male child
white	=1 if white
cigs	cigarettes smoked per day while pregnant
bwghtlbs	birth weight, pounds
packs	packs smoked per day while pregnant