Paper 475.330 **Assignment 2** **Due: 13 Aug**

Franco Modigliani, a Nobel laureate in economics, developed a theory known as the "life-cycle savings hypothesis". According to this theory, the savings rate for a country should be lower if non-members of the labour force constitute a large percentage of the population and should also depend on the rate of income growth. The level of income itself is hypothesised not to be an important factor.

You can use the command:

```
16:22:12 advlab$ cp  /users/classes/475330/data/savings.data  savings.data
```

to copy a set of economic data that were collected on 50 countries into your account. This data contains values for five variables:

savings the average ratio (as a percentage) of aggregate personal savings over the disposable income in that country (averaged over the years 1960-1970).

growth the average percent growth rate of disposable income over the period 1960-1970.

disp.inc the average level of (real) per-capita disposable income in the country averaged over the period 1960-1970 (measured in US dollars).

pop.75 average percentage of the population over 75 years of age for the period 1960-1970.

pop.15 average percentage of the population under 15 years of age for the period 1960-1970.

Your mission is to create a regression model (or models) for savings that can be used to see whether these data are in accord with the life-cycle savings hypothesis. Analyse this data with this objective in mind.

Your report should consist of two sections. The first should be understandable to someone who is not familar with statistical techniques. It should present a model(s) for savings, explain what it means in layman's terms, and discuss what it indicates about the validity of the life-cycle savings hypothesis. The second part of your report should be a Statistical Appendix that explains why you selected the model you did and how you used it assess the validity of the life-cycle savings hypothesis.