



## Subjective and objective social class

In the table below (Sörbom & Jöreskog (1981)) data on subjective and objective social class is presented. There are three variables measuring objective status and four variables measuring subjective stats. The objective status measures are:

**Table: Correlations, means and standard deviations for indicators of objective class and subjective class**

Variables	$y_1$	$y_2$	$y_3$	$x_1$	$x_2$	$x_3$	$x_4$	Mean	(s.d)
EDUC	-	.404	.268	.216	.233	.211	.207	1.274	(1.106)
OCC	.495	-		.277	.183	.270	.157	2.347	(1.622)
INC	.398	.292	-	.268	.424	.325	.282	4.041	(2.097)
SC-OCC	.218	.282	.184	-	.550	.574	.482	1.288	(0.747)
SC-INC	.299	.166	.383	.386	-	.647	.517	1.129	(0.814)
SC-LST	.272	.161	.321	.396	.553	-	.647	1.235	(0.786)
SC-INF	.269	.169	.191	.382	.456	.534	-	1.318	(0.859)
Mean	1.655	3.670	5.040	1.543	1.548	1.542	1.601		
(s.d.)	(1.203)	(2.128)	(2.198)	(0.640)	(0.670)	(0.623)	(0.624)		

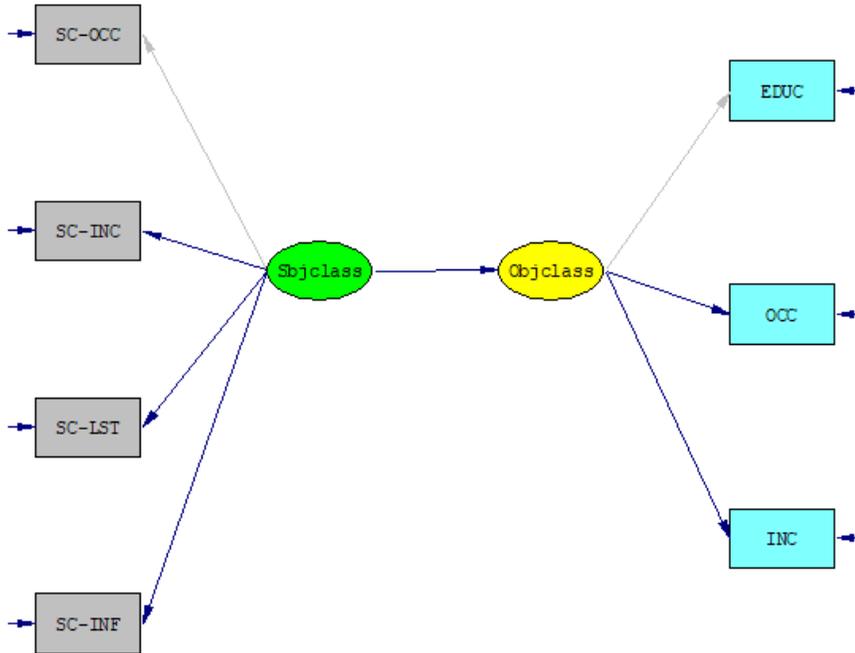
Data for whites below diagonal, and for blacks above diagonal ( $N$  (Whites) = 432,  $N$ (Blacks) = 368)

The objective status measures are:

- Education - indicated by five categories ranging from less than ninth grade to college graduate.
- Occupation - Indicated by the two-digit Duncan SEI score.
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- Income - Indicated by the total yearly family income before taxes in 1967, coded in units of \$2,000 and ranging from under \$2,000 to \$16,000 or more.

All subjective class indicators were structured questions asking respondents to place themselves in one of four class categories: lower, working, middle, or upper. The questions asked the respondent to indicate which social class they felt their occupation, income, way of life, and influence were most like. The criteria, in terms of which class self-placements were made, correspond directly to the Weberian dimensions of economic class (occupation and income), status (lifestyle), and power (influence).

For the present purpose we consider the model shown below. We want to test whether the relationship between objective and subjective class is the same for whites and blacks. We do this by testing the equality of the structural parameter  $\gamma$ .



The analysis reveals that the model fit very badly;  $\chi^2 = 121.76$  with 27 degrees of freedom. The modification index for  $\theta_{21}^{(\varepsilon)}$  is large for both groups. This indicates that the objective class measures are not congeneric. Education and occupation correlate more than can be accounted for by objective class. Allowing  $\varepsilon_1$  and  $\varepsilon_2$  to correlate freely in both groups gives  $\chi^2 = 86.93$  with 25 degrees of freedom. Relaxing the equality constraint on  $\gamma$  gives  $\chi^2 = 76.99$  with 24 degrees of freedom. The drop in  $\chi^2$  is 10.03 which is significant at the 0.5 percent level, so the hypothesis of equal  $\gamma$  must be rejected. The estimates of  $\gamma$ , with standard errors in parentheses, are:

$$\begin{aligned} \text{Whites: } \hat{\gamma} &= 1.345 (0.210) \\ \text{Blacks: } \hat{\gamma} &= 0.631 (0.119) \end{aligned}$$

The command file for the last model (**EX94.LIS** in the **LISREL Examples** folder) is:

```

LISREL MODEL FOR SUBJECTIVE AND OBJECTIVE SOCIAL CLASS WHITES
DA NG=2 NI=7 NO=432
LA FI=EX94.DAT
KM FI=EX94.DAT
SD FI=EX94.DAT
MO NY=3 NX=4 NE=1 NK=1 LY=FR LX=FR TE=SY
LE
Objclass
  
```

```
LK
Sbjclass
FR TE 2 1
FI LY 1 LX 1
VA 1 LY 1 LX 1
OU
LISREL MODEL FOR SUBJECTIVE AND OBJECTIVE SOCIAL CLASS BLACKS
DA NI=7 NO=368
LA FI=EX94.DAT
KM FI=EX94.DAT
SD FI=EX94.DAT
MO
LE
Objclass
LK
Sbjclass
FR TE 2 1
FI LY 1 LX 1
VA 1 LY 1 LX 1
OU
```

Note that the file **EX94.DAT** contains labels, correlations, and standard deviations.