PLSC 476: Empirical Legal Studies

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Are Lawyers Happy?

Popular press: No.

- More prone to anxiety, depression, substance abuse, suicide, etc., and
- Generally in denial about it
- Based largely on anecdotes + unscientific surveys

Scientific literature: More or less...

- Attorneys are similar to other professionals with respect to job satisfaction & subjective well-being
- Generally make use of *self-reported* measures
- Concerns:
  - Self-reporting $\rightarrow$ *adaptation*
  - Social desirability bias

Measurement

Most common: Direct measures of concepts

Alternative: Indirect measures

- Multiple, incomplete/imperfect *indicators* of the concept +
- *Data reduction* to combine indicators into a single measure

Challenges:

- Indicators vary in *scale*
- Indicators vary in *relation to the underlying concept*
- Often hard to *validate*

"After The J.D."

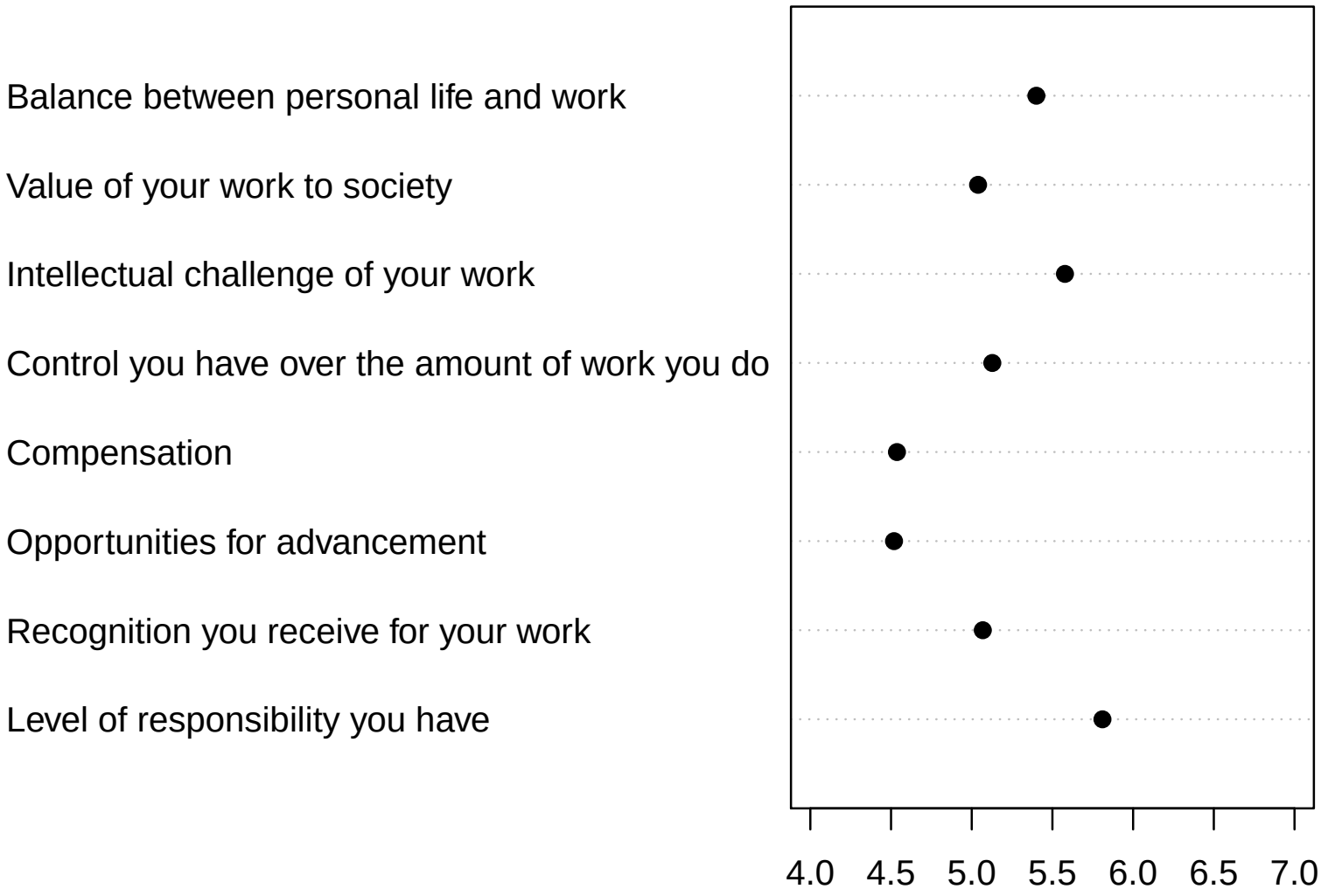
- National sample of attorneys in the U.S.
- Three-wave panel, following $\approx$ 5000 attorneys who were first admitted to the bar in 2000
  - Wave I in 2002 ($N = 4538$)
  - Wave II in 2007 ($N = 3705$)
  - Wave III in 2012 ($N = 2862$)
- $>$ 500 survey questions / items, on a wide range of topics
- We'll focus on Wave III $\rightarrow$ experienced attorneys

Satisfaction Index: Components

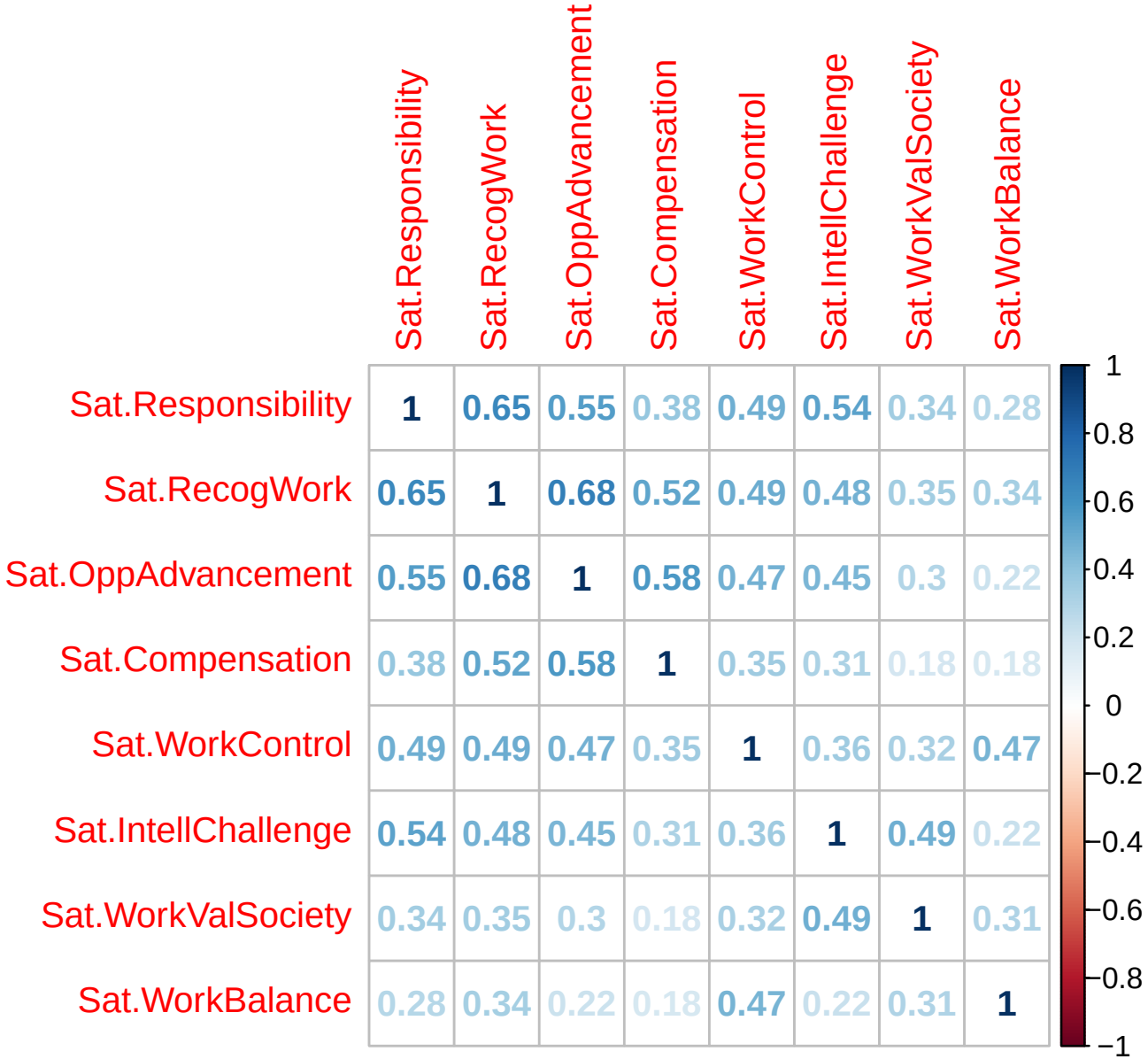
Q: How satisfied are you with each of the following aspects of your current position? [1 = "very dissatisfied" $\rightarrow$ 7 = "very satisfied"]

- Level of **responsibility** you have
- **Recognition** you receive for your work
- Opportunities for **advancement**
- **Compensation**
- Control you have over the **amount of work** you do
- **Intellectual challenge** of your work
- **Value** of your work to society
- **Balance** between personal life and work

Mean Attorney Satisfaction

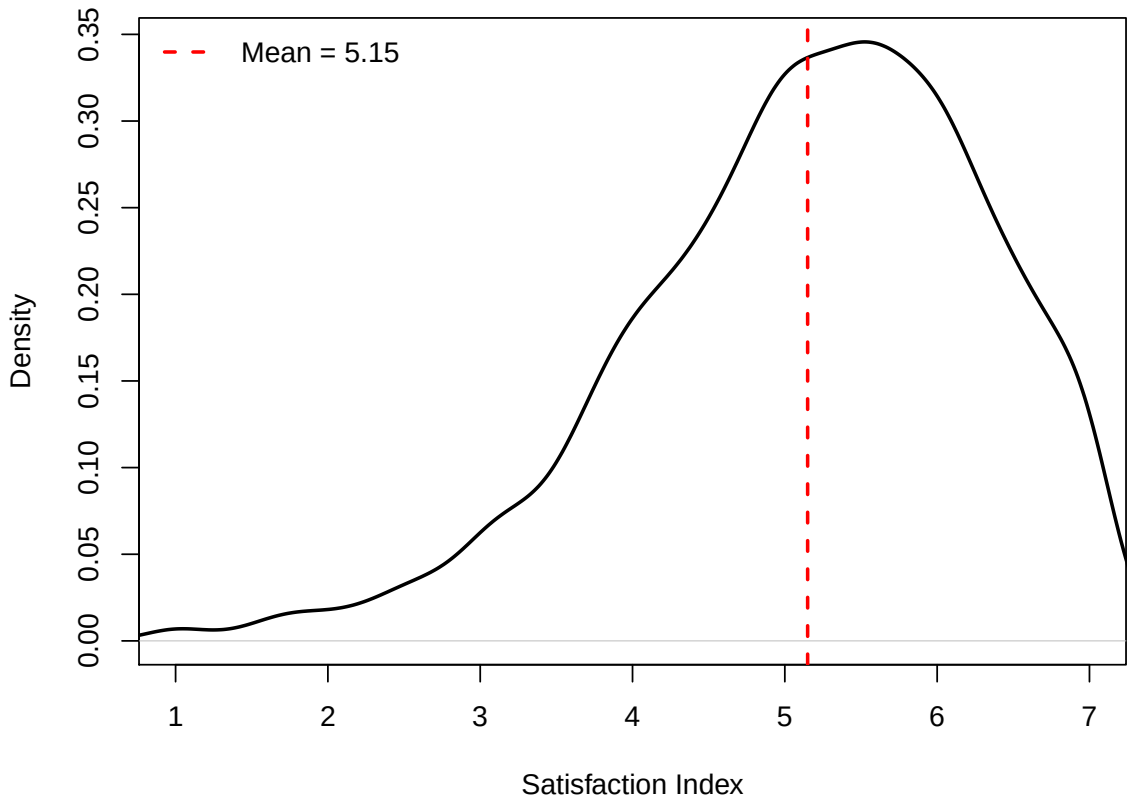


Satisfaction Components: Correlations



Summarizing Satisfaction: Additive Index

$$\text{Satisfaction}_i = \frac{\sum_{j=1}^{8} \text{Satisfaction Component}_{ij}}{8}$$

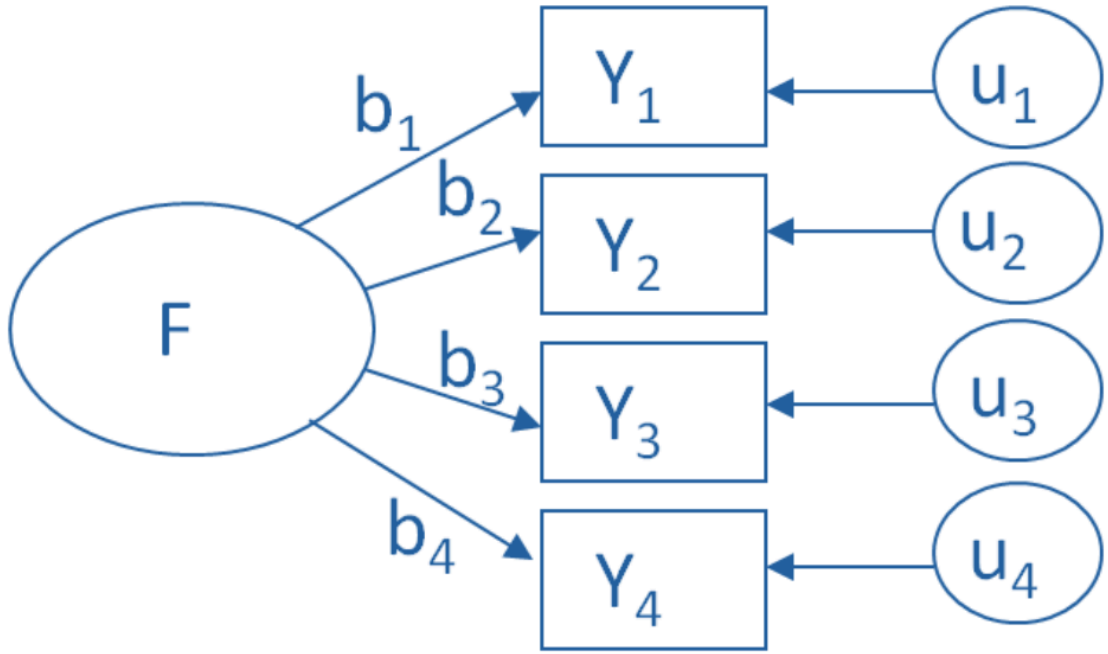


Data Reduction: Factor Analysis

Factor analysis (FA) is a model for the measurement of a latent variable using manifest / observable indicators.

- Observable indicators are manifestations of one or more latent / unobservable *factors*
- Extant indicators are differentially caused by the latent factor(s), and are observed with error
- The goal of FA is to derive measures of the latent factor from the observed data, by estimating factor *loadings* (associations between latent factors and observable variables)

Factor Analysis, Conceptually



$$
\begin{aligned}
Y_1 &= b_1 F + u_1 \\
Y_2 &= b_2 F + u_2 \\
Y_3 &= b_3 F + u_3 \\
Y_4 &= b_4 F + u_4
\end{aligned}
$$

(Source)

Practical Factor Analysis

- Choose the *number of factors* (dimensions)
- Consider *rotation*
- *Estimate* the factor loadings
- *Interpret* the factors...
- Generate *factor scores*: Values of the latent factor(s)

Lawyer Satisfaction: Factor Analysis

```
> SatFA<-factanal(AJD[complete.cases(AJD[,SatVars]),SatVars],factors=1,
+                 na.action=na.omit,rotation="varimax",scores="regression")
> SatFA

Call:
factanal(x = AJD[complete.cases(AJD[, SatVars]), SatVars], factors = 1, na.action = na.omit,
         scores = "regression", rotation = "varimax")

Uniquenesses:
 Sat.Responsibility       Sat.RecogWork  Sat.OppAdvancement
              0.435               0.290               0.389
   Sat.Compensation     Sat.WorkControl Sat.IntellChallenge
              0.642               0.613               0.625
 Sat.WorkValSociety     Sat.WorkBalance
              0.793               0.840

Loadings:
                    Factor1
Sat.Responsibility  0.752
Sat.RecogWork       0.843
Sat.OppAdvancement  0.782
Sat.Compensation    0.598
Sat.WorkControl     0.622
Sat.IntellChallenge 0.612
Sat.WorkValSociety  0.455
Sat.WorkBalance     0.400

               Factor1
SS loadings      3.373
Proportion Var   0.422

Test of the hypothesis that 1 factor is sufficient.
The chi square statistic is 918.1 on 20 degrees of freedom.
The p-value is 1.09e-181
```

Factor Scores

Predicted score on the underlying concept / factor:

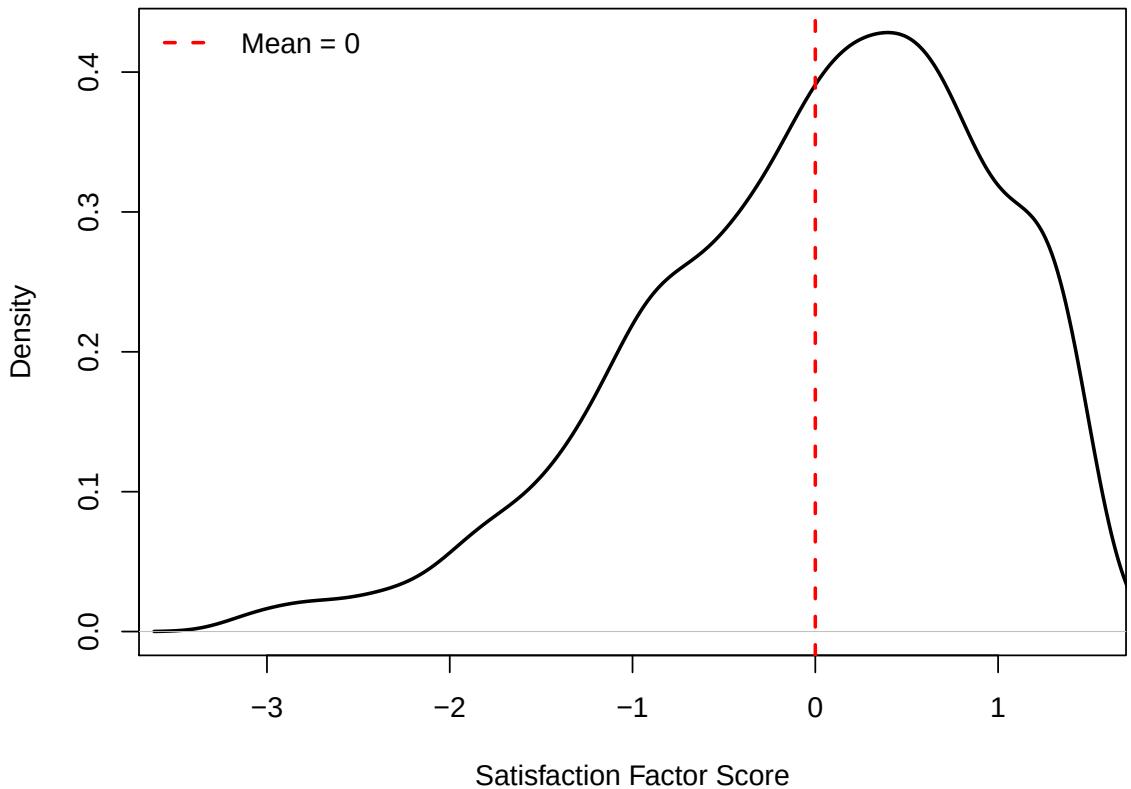
$$\hat{S}_i = f[Y_{1i}\hat{b}_1 + Y_{2i}\hat{b}_2 + ... + Y_{ki}\hat{b}_k]$$

Factor scores:

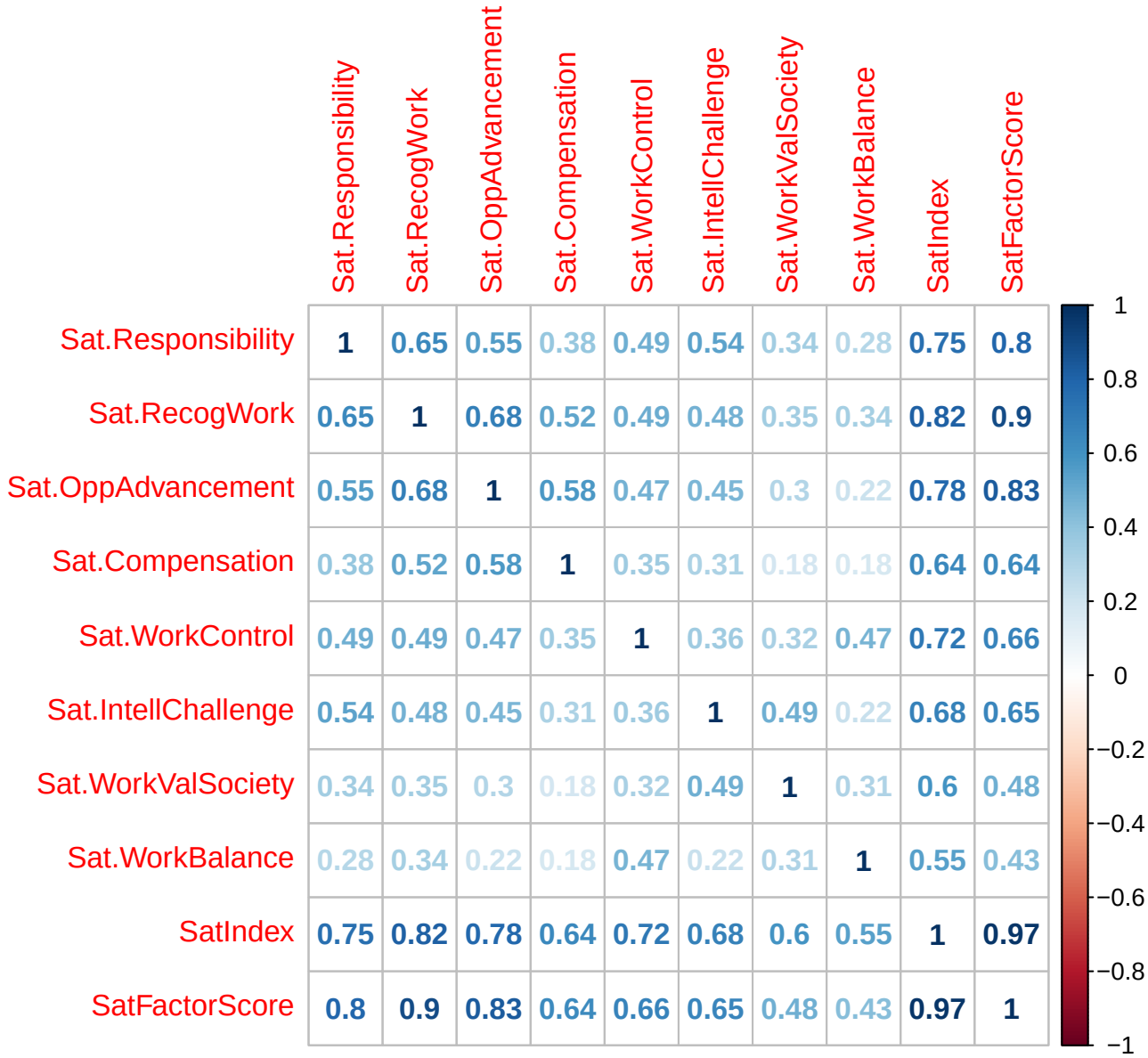
- Are measures of each observation's value on the underlying factor **F**
- Account for the degree of association between each indicator Y and the underlying factor
- Are "scale-free":
  - Mean = 0
  - Variance = 1
  - (Typically) Normally distributed

Factor Scores in Practice

```
> describe(AJD$SatFactorScore)
   vars    n mean   sd median trimmed  mad   min  max range  skew kurtosis   se
X1    1 2341    0 0.94   0.13    0.07 0.96 -3.08 1.42   4.5 -0.66     0.08 0.02
```



Comparisons



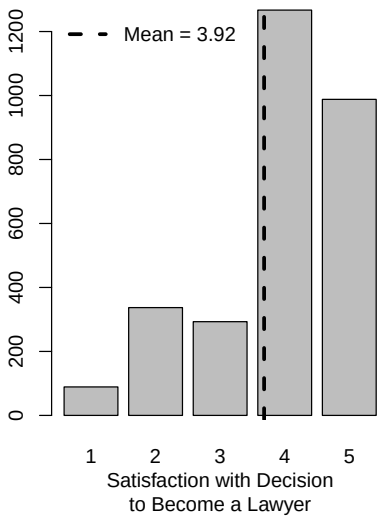
Validation: Direct Measures of Satisfaction

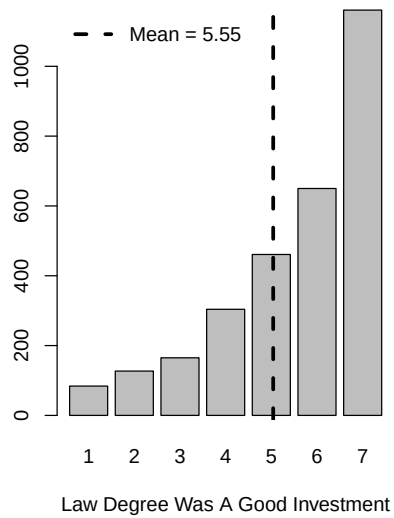
1. How satisfied are you with your decision to become a lawyer? [1 = "very dissatisfied" $\rightarrow$ 5 = "very satisfied"]

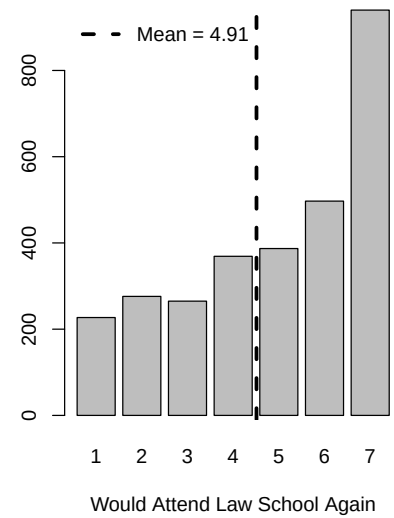
2. Indicate your level of agreement [7 = "strongly agree"] or disagreement [1 = "strongly disagree"] with the following statements about your legal education:

   a. I consider my law degree to have been a good career investment

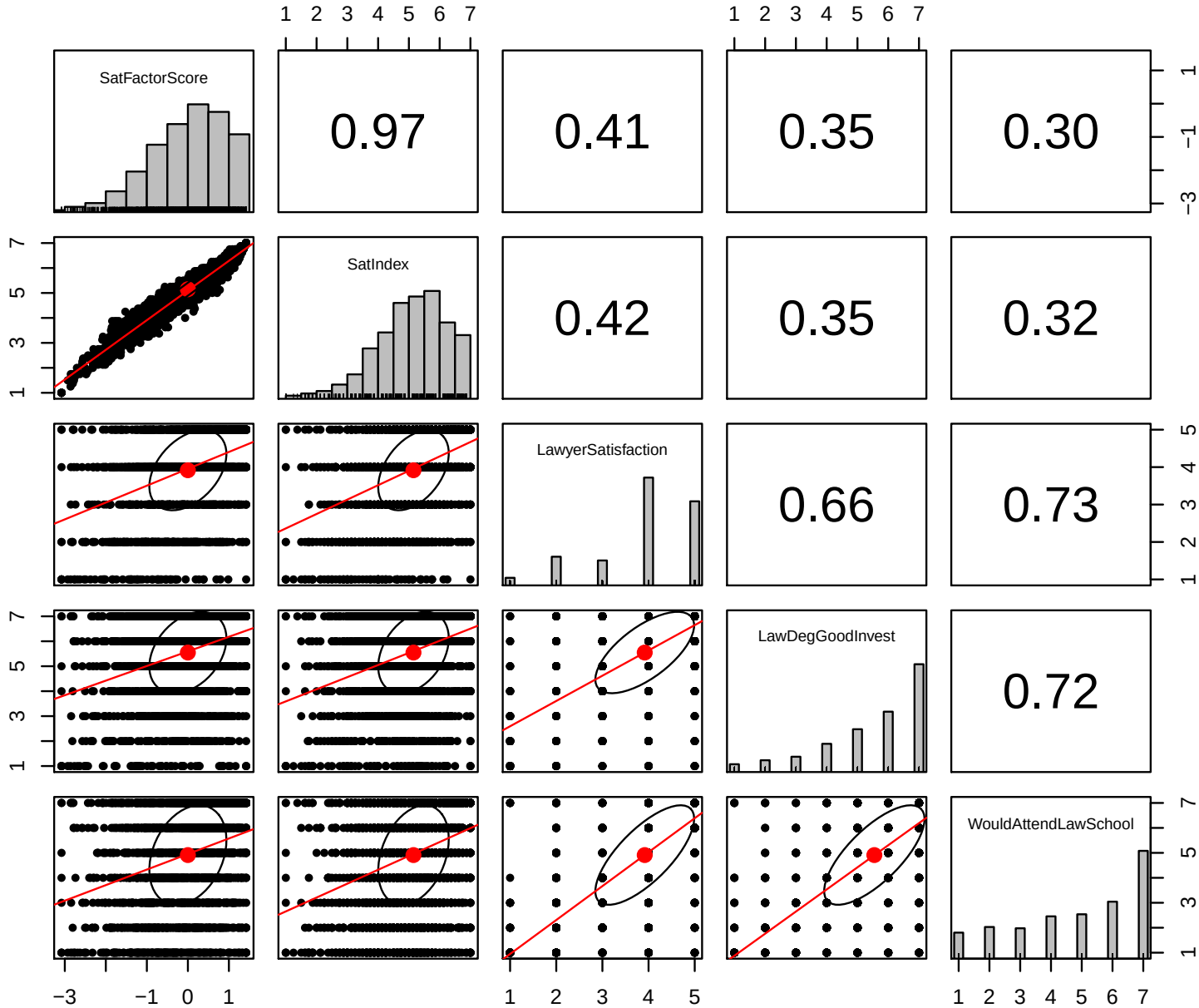
   b. If I had to do it over again, I would still choose to have gone to law school







Comparison: Factor Scores and Direct Measures



Drivers of Lawyer Satisfaction

- Years In Current Position
- Hours Worked Per Week (ordinal: 0-20, 21-40, 41-60, 61-80+)
- Educational Debt (ordinal, 8 categories)
- Female vs. Male
- Race/Ethnicity
- Age ($\leq$ 35, 36-40, $\geq$ 41)

Regression Analyses

	Lawyer Satisfaction	
	Factor Score	Direct Measure
Year Started at Employer (1970=0)	0.002	−0.014***
	(0.005)	(0.005)
Hours Worked Per Week	−0.066**	0.044
	(0.030)	(0.030)
Educational Debt	−0.020**	−0.039***
	(0.009)	(0.009)
Female	−0.073*	−0.030
	(0.041)	(0.041)
African-American	−0.169**	0.216***
	(0.078)	(0.079)
Latino	0.054	0.279***
	(0.078)	(0.079)
Native American	0.180	0.055
	(0.329)	(0.308)
Asian	−0.047	−0.009
	(0.070)	(0.071)
Other Race	−0.027	0.100
	(0.098)	(0.096)
Age 36-40	−0.734	−0.074
	(0.928)	(0.589)
Age 41+	−0.764	0.073
	(0.928)	(0.589)
Constant	−3.871	32.060***
	(9.162)	(9.192)
Observations	2,133	2,542
R^2	0.011	0.022
Adjusted R^2	0.005	0.018
Residual Std. Error	0.927 (df = 2121)	1.019 (df = 2530)
F Statistic	2.065** (df = 11; 2121)	5.205*** (df = 11; 2530)

Note: Cells are linear regression coefficients; numbers in parentheses are standard errors.

*p<0.1; **p<0.05; ***p<0.01