

# Sample of Participants and Random Variables for Hypothetical

## 1 Overview

The dataset contains the responses from 127 compensation analysts in the USA who answered the questionnaire. In addition, the dataset includes 156 observations of hypothetical situations that were sent to compensation analysts, but these analysts never answered the questionnaire. The total of 283 is the number of compensation analysts who initially agreed to take part in the study.

The dataset contains 30 variables. The first two variables are counters:

- *round* indicates the round of the study, where
  - “1” denotes the part of the study carried out in March 2000
  - “2” denotes the part of the study carried out in April 2000
- *obs* denotes the index number of the questionnaire that was sent out in a round

The following variables were given to the compensation analysts as part of the hypothetical situation:

- $x_0$ : Average wage and salary increase of the other firms in the hypothetical market during the *past year*
- $x_1$ : *Expected* average wage and salary increase of the other firms in the hypothetical market
- *inflat* ( $\Delta CPI$ ): CPI inflation in the past year and expected inflation for the coming 12 months
- $x_2$ : Average wage and salary increase of the hypothetically advised firm during the last year

- $x_3$ : Mean premium of hypothetical firm's wages and salaries over average wages and salaries in the firm's labor market
- $x_4$ : Percentile rank of the hypothetical firm's wages and salaries in its labor market
- $x_5$ : Average unemployment rate in the firm's labor market during the past year and expected unemployment rate for the coming twelve months
- $dhir\_ltl$ : Indicator variable of "little difficulty to hire" in the firm's labor market ("0": some other level of difficulty, "1": little difficulty)
- $dhir\_som$ : Indicator variable of "some difficulty to hire" in the firm's labor market ("0": some other level of difficulty, "1": some difficulty)
- $dhir\_ser$ : Indicator variable of "serious difficulty to hire" in the firm's labor market ("0": some other level of difficulty, "1": serious difficulty)
- $dret\_ltl$ : Indicator variable of "little difficulty to retain" in the firm's labor market ("0": some other level of difficulty, "1": little difficulty)
- $dret\_som$ : Indicator variable of "some difficulty to retain" in the firm's labor market ("0": some other level of difficulty, "1": some difficulty)
- $dret\_ser$ : Indicator variable of "serious difficulty to retain" in the firm's labor market ("0": some other level of difficulty, "1": serious difficulty)
- $dind\_fal$ : Indicator variable of "net revenue growth has fallen behind relative to industry" ("0": some other relation, "1": less net revenue growth)
- $dind\_comp$ : Indicator variable of "net revenue growth has been comparable to industry" ("0": some other relation, "1": comparable net revenue growth)
- $dind\_exc$ : Indicator variable of "net revenue growth has exceeded that of industry" ("0": some other relation, "1": higher net revenue growth)
- $deco\_fal$ : Indicator variable of "net revenue growth has fallen behind relative to economy" ("0": some other relation, "1": less net revenue growth)

- *deco\_comp*: Indicator variable of “net revenue growth has been comparable to economy” (“0”: some other relation, “1”: comparable net revenue growth)
- *deco\_exc*: Indicator variable of “net revenue growth has exceeded that of economy” (“0”: some other relation, “1”: higher net revenue growth)

The following variables contain the answers of the compensation analysts:

- $q_1$ : Answer to question 1, anticipated average wage and salary increase given the analyst’s recommendation
- $dq_{2a}$ : Indicator variable for question 2a, surveys of current wages and salaries at other firms are available for decision (“0”: no response, “1”: checked)
- $dq_{2b}$ : Indicator variable for question 2b, surveys of expected wage and salary increases at other firms are available for decision (“0”: no response, “1”: checked)
- $dq_{2c}$ : Indicator variable for question 2c, regional unemployment rate available for decision (“0”: no response, “1”: checked)
- $dq_{2d}$ : Indicator variable for question 2d, unemployment rate in industry available for decision (“0”: no response, “1”: checked)
- $dq_{2e}$ : Indicator variable for question 2e, history of CPI inflation available for decision (“0”: no response, “1”: checked)
- $dq_{2f}$ : Indicator variable for question 2f, all of the above are available for decision (“0”: no response, “1”: checked)
- $dq_{3a}$ : Indicator variable for question 3a, expected wage and salary inflation too small to be factor in decision (“0”: no response, “1”: checked)
- $dq_{3b}$ : Indicator variable for question 3b, impact of expected wage and salary inflation explicitly included in calculations for decision (“0”: no response, “1”: checked)
- $dq_{3c}$ : Indicator variable for question 3c, role of expected wage and salary inflation in decision impossible to determine (“0”: no response, “1”: checked)

## 2 Sample

1000 e-mail addresses of compensation analysts in the USA were randomly obtained. In each round, 500 were used. The compensation analysts were first asked whether they agreed to participate or not. Who agreed, received a second e-mail with a randomly drawn hypothetical situation.

In the first round, in early March 2000, among the 500 initial e-mails that were sent out, 80 were undeliverable. 282 compensation analysts chose not to take part and/or left the e-mail unanswered. 138 compensation analysts agreed to take part within three weeks and received a hypothetical shortly after agreeing. Of these 138 analysts, 70 answered the questionnaire.

In the second round, in late April 2000, among the 500 initial e-mails that were sent out, 97 were undeliverable. 258 compensation analysts chose not to take part and/or left the e-mail unanswered. 145 compensation analysts agreed to take part within three weeks and received a hypothetical shortly after agreeing. Of these 145 analysts, 57 answered the questionnaire.

## 3 Generated random variables for hypothetical

The random variables for the hypothetical were generated in the following manner.

- $X_0 = X_1 + V'$  where  $V' \sim U(-1.9, 1.9)$
- $X_1 = \begin{cases} 1.9 + R'_1, & R'_1 \sim U[0, 3], \text{ with probability } \frac{1}{2} \\ 1.9 + R''_1, & R''_1 \sim U(3, 6], \text{ with probability } \frac{1}{4} \\ 1.9 + R'''_1, & R'''_1 \sim U(6, 10], \text{ with probability } \frac{1}{4} \end{cases}$
- $\Delta CPI$ 
  - In the first round of study:  $\Delta CPI = X_1 - 1.9$
  - In the second round of study:  $\Delta CPI = X_1 - 3.4$  for every odd numbered respondent in the sample, and  $\Delta CPI = X_1 - .4$  for every even numbered respondent.
- $X_2 = X_1 (1 + R_2)$  where  $R_2 \sim U(-.5, .5)$
- $X_3 = [.04 * invnormcum(X_4)] * 100$

- $X_4 \sim U(.1, .9)$
- $X_5 \sim U(4, 8)$
- Difficulty to hire = Difficulty to retain =  $\begin{cases} \textit{little} & \text{with probability } \frac{1}{3} \\ \textit{some} & \text{with probability } \frac{1}{3} \\ \textit{serious} & \text{with probability } \frac{1}{3} \end{cases}$
- Net revenue growth *industry* =  $\begin{cases} \textit{fallen behind} & \text{with probability } \frac{1}{3} \\ \textit{been comparable to} & \text{with probability } \frac{1}{3} \\ \textit{exceeded} & \text{with probability } \frac{1}{3} \end{cases}$
- Net revenue growth *economy* =  $\begin{cases} \textit{fallen behind} & \text{with probability } \frac{1}{3} \\ \textit{been comparable to} & \text{with probability } \frac{1}{3} \\ \textit{exceeded} & \text{with probability } \frac{1}{3} \end{cases}$

In general, all uniformly distributed random variables  $X \sim U(a, b)$  were generated as  $X \equiv |b - a| \cdot U + a$  with  $U \sim U(0, 1)$ .