```
Your license renewal date has passed. This product will stop working if a new license is
not installed soon.
PRESERVE.
SET DECIMAL DOT.

GET DATA /TYPE=TXT
/FILE="M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstrap\Eksempel\Eksempel-pro
grammer\SPSS\RoykeSlutt.csv"
/ENCODING='UTF8'
/DELIMITERS=";"
/QUALIFIER='"'
/ARRANGEMENT=DELIMITED
/FIRSTCASE=2
/DATATYPEMIN PERCENTAGE=95.0
/VARIABLES=
Intervensjon AUTO
Motivasjon AUTO
Sluttet6m AUTO
/MAP.
RESTORE.
CACHE.
EXECUTE.

Data written to the working file.
3 variables and 58 cases written.
Variable: Intervensjon Type: Number Format : F1
Variable: Motivasjon Type: Number Format : F2 One or more values were set to
system-missing.
Variable: Sluttet6m Type: Number Format : F1 One or more values were set to
system-missing.

Substitute the following to build syntax for these data.
/VARIABLES=
Intervensjon F1
Motivasjon F2
Sluttet6m F1

DATASET NAME DataSet1 WINDOW=FRONT.
PRESERVE.
SET RNG=MT MTINDEX=3.
SHOW RNG.
```

**SHOW**

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:57:07 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 58 |
| Syntax | | SHOW RNG. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.00 |

```
[DataSet1]
```

## System Settings

| Keyword | Description | Setting |
|---|---|---|
| RNG | Random number generator | MT (Mersenne Twister) |

```
BOOTSTRAP
/SAMPLING METHOD=SIMPLE
/VARIABLES TARGET=Motivasjon
/CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000
/MISSING USERMISSING=EXCLUDE.
```

## Bootstrap

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:57:07 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\RoykeSlutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 58 |
| Syntax | | BOOTSTRAP /SAMPLING METHOD=SIMPLE /VARIABLES TARGET=Motivasjon /CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000 /MISSING USERMISSING=EXCLUDE. |
| Resources | Processor Time | 00:00:00.02 |
| | Elapsed Time | 00:00:00.02 |

## Bootstrap Specifications

| | |
|---|---|
| Sampling Method | Simple |
| Number of Samples | 10000 |
| Confidence Interval Level | 95.0% |
| Confidence Interval Type | Percentile |

```
MEANS TABLES=Motivasjon
/CELLS=MEAN COUNT STDDEV.
```

## Means

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:57:07 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\RoykeSlutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 362292 |
| Missing Value Handling | Definition of Missing | For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing. |
| | Cases Used | Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values. |
| Syntax | | MEANS TABLES=Motivasjon /CELLS=MEAN COUNT STDDEV. |
| Resources | Processor Time | 00:00:04.08 |
| | Elapsed Time | 00:00:02.77 |

## Case Processing Summary

| | Cases | | | | | |
|---|---|---|---|---|---|---|
| | Included | | Excluded | | Total | |
| | N | Percent | N | Percent | N | Percent |
| Motivasjon | 57 | 100.0% | 0 | 0.0% | 57 | 100.0% |

## Report

Motivasjon

| | | Bootstrap[a] | | | |
|---|---|---|---|---|---|
| | | | | 95% Confidence Interval | |
| | Statistic | Bias | Std. Error | Lower | Upper |
| Mean | 8.49 | .00 | .25 | 7.98 | 8.95 |
| N | 57 | 0 | 0 | 57 | 57 |
| Std. Deviation | 1.910 | -.034 | .252 | 1.381 | 2.359 |

a. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

```
RESTORE.
PRESERVE.
SET RNG=MT MTINDEX=3.
SHOW RNG.
```

**SHOW**

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:14 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| Syntax | | SHOW RNG. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.00 |

## System Settings

| Keyword | Description | Setting |
|---|---|---|
| RNG | Random number generator | MT (Mersenne Twister) |

```
BOOTSTRAP
/SAMPLING METHOD=SIMPLE
/VARIABLES TARGET=Motivasjon
/CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000
```

## Bootstrap

### Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:14 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| Syntax | | BOOTSTRAP /SAMPLING METHOD=SIMPLE /VARIABLES TARGET=Motivasjon /CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000 /MISSING USERMISSING=EXCLUDE. |
| Resources | Processor Time | 00:00:00.02 |
| | Elapsed Time | 00:00:00.02 |

### Bootstrap Specifications

| | |
|---|---|
| Sampling Method | Simple |
| Number of Samples | 10000 |
| Confidence Interval Level | 95.0% |
| Confidence Interval Type | Percentile |

```
EXAMINE VARIABLES=Motivasjon
/PLOT BOXPLOT STEMLEAF
/COMPARE GROUPS
```

```
/STATISTICS DESCRIPTIVES
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.
```

## Explore

### Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:14 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\RoykeSlutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 362292 |
| Missing Value Handling | Definition of Missing | User-defined missing values for dependent variables are treated as missing. |
| | Cases Used | Statistics are based on cases with no missing values for any dependent variable or factor used. |
| Syntax | | EXAMINE VARIABLES=Motivasjon /PLOT BOXPLOT STEMLEAF /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL. |
| Resources | Processor Time | 00:00:06.19 |
| | Elapsed Time | 00:00:04.01 |

## Case Processing Summary

| | Cases | | | | | |
|---|---|---|---|---|---|---|
| | Valid | | Missing | | Total | |
| | N | Percent | N | Percent | N | Percent |
| Motivasjon | 57 | 100.0% | 0 | 0.0% | 57 | 100.0% |

## Descriptives

| | | | | | Bootstrap[a] | |
|---|---|---|---|---|---|---|
| | | | Statistic | Std. Error | Bias | Std. Error |
| Motivasjon | Mean | | 8.49 | .253 | .00 | .25 |
| | 95% Confidence Interval for Mean | Lower Bound | 7.98 | | | |
| | | Upper Bound | 9.00 | | | |
| | 5% Trimmed Mean | | 8.72 | | -.02 | .25 |
| | Median | | 9.00 | | .14 | .59 |
| | Variance | | 3.647 | | -.067 | .947 |
| | Std. Deviation | | 1.910 | | -.034 | .252 |
| | Minimum | | 2 | | | |
| | Maximum | | 10 | | | |
| | Range | | 8 | | | |
| | Interquartile Range | | 3 | | 0 | 0 |
| | Skewness | | -1.508 | .316 | .080 | .327 |
| | Kurtosis | | 2.215 | .623 | -.234 | 1.442 |

## Descriptives

| | | | Bootstrap[a] 95% Confidence Interval Lower | Bootstrap[a] 95% Confidence Interval Upper |
|---|---|---|---|---|
| Motivasjon | Mean | | 7.98 | 8.95 |
| | 95% Confidence Interval for Mean | Lower Bound | | |
| | | Upper Bound | | |
| | 5% Trimmed Mean | | 8.17 | 9.14 |
| | Median | | 8.00 | 10.00 |
| | Variance | | 1.908 | 5.563 |
| | Std. Deviation | | 1.381 | 2.359 |
| | Minimum | | | |
| | Maximum | | | |
| | Range | | | |
| | Interquartile Range | | 2 | 3 |
| | Skewness | | -2.092 | -.783 |
| | Kurtosis | | -.281 | 5.416 |

a. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

```
RESTORE.
PRESERVE.
SET RNG=MT MTINDEX=3.
SHOW RNG.
```

**SHOW**

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:58 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| Syntax | | SHOW RNG. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.00 |

## System Settings

| Keyword | Description | Setting |
|---|---|---|
| RNG | Random number generator | MT (Mersenne Twister) |

```
BOOTSTRAP
/SAMPLING METHOD=SIMPLE
/VARIABLES TARGET=Motivasjon INPUT=Sluttet6m
/CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000
/MISSING USERMISSING=EXCLUDE.
```

## Bootstrap

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:58 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| Syntax | | BOOTSTRAP<br>/SAMPLING METHOD=SIMPLE<br>/VARIABLES TARGET=Motivasjon INPUT=Sluttet6m<br>/CRITERIA CILEVEL=95 CITYPE=PERCENTILE NSAMPLES=10000<br>/MISSING USERMISSING=EXCLUDE. |
| Resources | Processor Time | 00:00:00.02 |
| | Elapsed Time | 00:00:00.01 |

## Bootstrap Specifications

| | |
|---|---|
| Sampling Method | Simple |
| Number of Samples | 10000 |
| Confidence Interval Level | 95.0% |
| Confidence Interval Type | Percentile |

```
T-TEST GROUPS=Sluttet6m(0 1)
/MISSING=ANALYSIS
/VARIABLES=Motivasjon
/ES DISPLAY(TRUE)
/CRITERIA=CI(.95).
```

## T-Test

## Notes

| | | |
|---|---|---|
| Output Created | | 21-JAN-2023 21:58:58 |
| Comments | | |
| Input | Data | M:\OusBiostat\Kurs-foredrag\Masterclass\Masterclass-Bootstap\Eksempel\Eksempel-programmer\SPSS\Royke Slutt.csv |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 349335 |
| Missing Value Handling | Definition of Missing | User defined missing values are treated as missing. |
| | Cases Used | Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis. |
| Syntax | | T-TEST GROUPS=Sluttet6m(0 1) /MISSING=ANALYSIS /VARIABLES=Motivasjon /ES DISPLAY(TRUE) /CRITERIA=CI(.95). |
| Resources | Processor Time | 00:00:15.17 |
| | Elapsed Time | 00:00:57.17 |

## Group Statistics

| | Sluttet6m | | Statistic | Bootstrap[a] Bias | Bootstrap[a] Std. Error | Bootstrap[a] 95% Confidence Interval Lower | Bootstrap[a] 95% Confidence Interval Upper |
|---|---|---|---|---|---|---|---|
| Motivasjon | 0 | N | 40 | | | | |
| | | Mean | 8.23 | .00 | .33 | 7.55 | 8.84 |
| | | Std. Deviation | 2.094 | -.044 | .294 | 1.460 | 2.609 |
| | | Std. Error Mean | .331 | | | | |
| | 1 | N | 15 | | | | |
| | | Mean | 9.07 | .00 | .33 | 8.38 | 9.69 |
| | | Std. Deviation | 1.280 | -.058 | .186 | .775 | 1.483 |
| | | Std. Error Mean | .330 | | | | |

a. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

## Independent Samples Test

| | | Levene's Test for Equality of Variances F | Levene's Test for Equality of Variances Sig. | t-test for Equality of Means t | t-test for Equality of Means df |
|---|---|---|---|---|---|
| Motivasjon | Equal variances assumed | 1.987 | .164 | -1.453 | 53 |
| | Equal variances not assumed | | | -1.799 | 41.277 |

## Independent Samples Test

| | | t-test for Equality of Means Significance One-Sided p | t-test for Equality of Means Significance Two-Sided p | t-test for Equality of Means Mean Difference | t-test for Equality of Means Std. Error Difference |
|---|---|---|---|---|---|
| Motivasjon | Equal variances assumed | .076 | .152 | -.842 | .579 |
| | Equal variances not assumed | .040 | .079 | -.842 | .468 |

## Independent Samples Test

| | | t-test for Equality of Means | |
|---|---|---|---|
| | | 95% Confidence Interval of the Difference | |
| | | Lower | Upper |
| Motivasjon | Equal variances assumed | -2.003 | .320 |
| | Equal variances not assumed | -1.786 | .103 |

## Bootstrap for Independent Samples Test

| | | | Bootstrap[a] | | | |
|---|---|---|---|---|---|---|
| | | | | | 95% Confidence Interval | |
| | | Mean Difference | Bias | Std. Error | Lower | Upper |
| Motivasjon | Equal variances assumed | -.842 | -.007 | .464 | -1.746 | .063 |
| | Equal variances not assumed | -.842 | -.007 | .464 | -1.746 | .063 |

a. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

## Independent Samples Effect Sizes

| | | | | 95% Confidence Interval | |
|---|---|---|---|---|---|
| | | Standardizer[a] | Point Estimate | Lower | Upper |
| Motivasjon | Cohen's d | 1.913 | -.440 | -1.037 | .161 |
| | Hedges' correction | 1.940 | -.434 | -1.022 | .159 |
| | Glass's delta | 1.280 | -.658 | -1.288 | -.007 |

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control group.

```
RESTORE.
```