**Statistics for Social Science**

**Volume: SPSS  
Chapter: Blank Output**

**Abstract:** This chapter is used as a set of worksheets for class problems. Students fill in their answers on these sheets, thus making clear the links between non-computer (“hand”) calculations and the SPSS output.

**Keywords:** SPSS output, worksheets

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This document is part of an online statistics sourcebook.

A browser-friendly viewing platform for the sourcebook is available:

<https://cwendorf.github.io/Sourcebook>

All data, syntax, and output files are available:

<https://github.com/cwendorf/Sourcebook>

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# Frequencies (Frequencies and Descriptives)

**Variable:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | \_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | Total | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |  |

**Statistics**

Variable:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| N | Valid | \_\_\_\_\_\_\_\_\_\_ |
| Mean | | \_\_\_\_\_\_\_\_\_\_ |
| Std. Deviation | | \_\_\_\_\_\_\_\_\_\_ |
| Variance | | \_\_\_\_\_\_\_\_\_\_ |
| Percentiles | 25 | \_\_\_\_\_\_\_\_\_\_ |
|  | 50 | \_\_\_\_\_\_\_\_\_\_ |
|  | 75 | \_\_\_\_\_\_\_\_\_\_ |

# Correlations (Bivariate)

**Descriptive Statistics**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Mean | Std. Deviation | N |
| Variable: \_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Variable: \_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

**Correlations**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Variable: \_\_\_\_\_\_\_\_\_ | Variable: \_\_\_\_\_\_\_\_\_ |
| Variable: \_\_\_\_\_\_\_\_\_ | Pearson Correlation | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Sig. (2-tailed) |  | XXXXX |
| Sum of Squares and Cross-products | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Covariance | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| N | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Variable: \_\_\_\_\_\_\_\_\_ | Pearson Correlation | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Sig. (2-tailed) | XXXXX |  |
| Sum of Squares and Cross-products | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Covariance | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| N | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

# T-Test (One Sample)

**One-Sample Statistics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | N | Mean | Std. Deviation | Std. Error Mean |
| DV | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

**One-Sample Test**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Test Value = \_\_\_\_\_\_\_ | | | | | |
|  | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
|  |  |  |  |  | Lower | Upper |
| DV | \_\_\_\_\_ | \_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |

# T-Test (Paired Samples)

| **Paired Samples Statistics** | | | | | |
| --- | --- | --- | --- | --- | --- |
|  |  | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Variable 1: \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Variable 2: \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

| **Paired Samples Correlations** | | | | |
| --- | --- | --- | --- | --- |
|  |  | N | Correlation | Sig. |
| Pair 1 | Variable 1 &  Variable 2 | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_ |

| **Paired Samples Test** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Paired Differences | | | | | | | |
|  |  | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
|  |  | Lower | Upper |
| Pair 1 | Variable 1 &  Variable 2 | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_ | \_\_\_\_\_\_ |

# T-Test (Independent Samples)

**Group Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Group | N | Mean | Std. Deviation | Std. Error Mean |
| DV | Level 1 | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | Level 2 | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

**Independent Samples Test**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | t-test for Equality of Means | | | | | | |
|  |  | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
|  |  |  |  |  |  |  | Lower | Upper |
| DV | Equal variances assumed | \_\_\_\_\_ | \_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
|  | Equal variances not assumed | XXXX | XXX | XXXX | XXXXX | XXXXXX | XXXXX | XXXXX |

# Oneway (OneWay ANOVA)

**Descriptives**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval  for Mean | |
|  |  |  |  |  | Lower Bound | Upper Bound |
| Level 1 | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Level 2 | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Level 3 | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

**ANOVA**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Within Groups | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ |  |  |
| Total | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |  |  |  |

# Post Hoc Tests (OneWay ANOVA)

**Multiple Comparisons**

Dependent Variable: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Comparison Procedure : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| (I) IV | (J) IV | Mean Difference  (I-J) |  |  | 95% Confidence Interval | |
| Std. Error | Sig. | Lower Bound | Upper Bound |
| Level 1 | Level 2 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
|  | Level 3 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| Level 2 | Level 1 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
|  | Level 3 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| Level 3 | Level 1 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
|  | Level 2 | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |

\*. The mean difference is significant at the .05 level.

# General Linear Model (Repeated Measures ANOVA)

**Tests of Between-Subjects Effects**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Intercept | XXXXXX | XXXX | XXXXXX | XXXXX | XXXXX |
| Error | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |  |  |

**Tests of Within-Subjects Effects**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Source |  | Type III Sum of Squares | df | Mean Square | F | Sig. |
| Treatment | Sphericity Assumed | \_\_\_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
|  | Greenhouse-Geisser | XXXXXX | XXXX | XXXXXX | XXXXX | XXXXX |
|  | Huynh-Feldt | XXXXXX | XXXX | XXXXXX | XXXXX | XXXXX |
|  | Lower-bound | XXXXXX | XXXX | XXXXXX | XXXXX | XXXXX |
| Error | Sphericity Assumed | \_\_\_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_\_\_ |  |  |
|  | Greenhouse-Geisser | XXXXXX | XXXX | XXXXXX |  |  |
|  | Huynh-Feldt | XXXXXX | XXXX | XXXXXX |  |  |
|  | Lower-bound | XXXXXX | XXXX | XXXXXX |  |  |

# Univariate Analysis of Variance (Factorial ANOVA)

| **Tests of Between-Subjects Effects** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Dependent Variable: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared |
| Corrected Model | XXXXXXX | XXXXX | XXXXXXX | XXXXXXX | XXXX | XXXX |
| Intercept | XXXXXXX | XXXXX | XXXXXXX | XXXXXXX | XXXX | XXXX |
| Factor A | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Factor B | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Factor A \* Factor B | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Error | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |  |  |  |
| Total | XXXXXXX | XXXXX |  |  |  |  |
| Corrected Total | \_\_\_\_\_\_\_\_ | \_\_\_\_\_\_ |  |  |  |  |