SAN JOSE STATE UNIVERSITY

School of Social Work
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General Statistical Analysis Overview

Univariate Statistics and Tests

Variable	Statistic and Test
Categorical (Dichotomous) (Dichotomous or politimous)	Frequency, percentages, mode, and: Binomial test, *p* One Variable Chi-Squared test, X^2 and *p*
Continuous	Frequency, percentages, range, minimum and maximum, mode, median, mean, sd

Bivariate Statistics and Tests

Independent Variable	Dependent Variable	Statistic and Statistical Test
Categorical	Categorical	Crosstabs: cell frequencies & percentages Chi-Squared Test for Independence or Association, X^2 and *p*
Categorical*** (Two independent groups) (Two dependent groups) (More than two independent groups)	Continuous*** → → →	Mean (sd) by group, and: Independent samples *t* test, *t* and *p* Dependent samples *t* test, *t* and *p* One-Way ANOVA with post-hoc test *F* and *p*
Continuous	Continuous	Correlation, *r* and *p* Simple (Linear) Regression, *F*, adj. R^2, b-coefficient, and *p*

Multivariate Tests

Independent Variables	Dependent Variable	Statistical Test
Two categorical variables	Continuous	Two-Way ANOVA, *F* and *p*
Two or more continuous and/or categorical	Categorical	
	(Dichotomous outcome)	Logistic Regression, X^2, Cox & Snell R^2 and *p*
	(Politimous outcome)	Discriminant Analysis (FYI, not covered)
Two or more continuous	Continuous	Multiple (Linear) Regression, *F*, adj. R^2, b-coefficient, and *p*
Two or more continuous and/or categorical	Continuous	Multiple (Linear) Regression, w/ dummy coding, *F*, adj. R^2, b-coefficient, and *p*

*** Note for t tests: For statistical test purposes, the IV and DV in your model can be switched in order to conduct an independent samples t test