Exploring Two-Variable Data

AP Statistics · Vocabulary in context

Word	Example
associated /əˈsəʊsɪeɪtɪd/	Height and weight are **associated**: taller people tend to weigh more.
explanatory variable /ekˈsplænətəri ˈveərɪəbl/	The **explanatory variable** may explain changes in the other.
response variable /rɪˈspɒns ˈveərɪəbl/	The **response variable** is the outcome we measure.
two-way table /tuː weɪ ˈteɪbl/	A **two-way table** shows counts for two categorical variables.
marginal distributions /ˈmɑːdʒɪnl ˌdɪstrɪˈbjuːʃnz/	The **marginal distributions** are the totals at the edges of the table.
joint relative frequency	A **joint relative frequency** is one cell divided by the grand total.
conditional distribution /kənˈdɪʃənl ˌdɪstrɪˈbjuːʃn/	A **conditional distribution** looks at one group only.
Segmented bar charts /segˈmentɪd bɑː tʃɑːts/	**Segmented bar charts** show how each group splits into parts.
mosaic plot	In a **mosaic plot**, bar widths show group sizes.
scatterplot /ˈskætəplɒt/	A **scatterplot** shows two numerical variables as points.
correlation coefficient /ˌkɒrɪˈleɪʃn ˌkəʊɪˈfɪʃənt/	The **correlation coefficient** r of a sample estimates the population value ρ. r ρ

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least-squares regression line /liːst skweəz rɪˈgreʃn laɪn/	The **least-squares regression line** makes the squared residuals as small as possible.
slope /sləʊp/	A steeper line has a larger **slope**.
y-intercept /waɪ ˌɪntəˈsept/	The **y-intercept** is the predicted value when x is 0. x 0
extrapolation /ekˈstræpəleɪʃn/	Predicting beyond the data is **extrapolation**.
residual /rɪˈsɪdʒuːəl/	Subtract the predicted value from the real value to find the **residual**.
residual plot /rɪˈsɪdʒuːəl plɒt/	A **residual plot** with no pattern means a line fits well.
coefficient of determination /ˌkəʊɪˈfɪʃənt ɒv dɪˌtɜːmɪˈneɪʃn/	The **coefficient of determination** r^2 shows how much variation the line explains. r^2
high-leverage /haɪ ˈliːvərɪdʒ/	A **high-leverage** point has an unusual x value. x
influential /ˌɪnfluːˈenʃl/	An **influential** point changes the line a lot when removed.