

How does the count of bike purchases vary among different marital statuses? Are married individuals more likely to purchase bikes?

When comparing marital status, single individuals appear slightly more inclined to purchase bikes compared to married individuals. Out of the total, 247 singles bought a bike while 211 did not, whereas among married individuals 229 purchased and 306 did not. This indicates that being single may be associated with a greater likelihood of bike ownership than being married.

Does gender influence bike purchases, and if so, to what extent?

Gender does not seem to strongly influence bike purchase decisions. Both males and females show almost equal counts of bike buyers, with 239 males and 239 females purchasing. The number of non-buyers is also very close across genders, which suggests that bike-buying behavior is evenly distributed and not significantly affected by gender.

What is the distribution of income among bike buyers? Are there specific income brackets that show a higher likelihood of bike purchases?

The distribution of bike buyers across income levels shows that purchases are concentrated in the mid-income ranges, particularly between \$40,000 and \$80,000. Within this bracket, the \$60,000–\$70,000 groups show notably high counts of bike purchases. This suggests that individuals in stable, mid-level income brackets are more likely to consider buying a bike compared to very low or very high-income earners.

Are certain age groups more inclined to purchase bikes?

Looking at age categories, middle-aged individuals are the most common bike buyers, outpacing both younger and older groups. This trend may be because middle-aged buyers typically have both the financial stability and lifestyle needs that align with purchasing a bike. In contrast, younger individuals have lower incomes, and older individuals may be less inclined due to lifestyle or physical factors.

Are there any extreme income values, and how might they impact purchasing behavior?

The dataset contains outliers such as \$10,000, \$30,000, \$70,000, and \$170,000. These extreme values represent a small portion of the data and can skew the interpretation of averages or trends. For instance, individuals with extremely low or extremely high incomes may not follow the same purchasing patterns as the broader mid-income group, and therefore their behavior should be analyzed cautiously.

Are there regions where bike purchases are notably higher?

Regionally, North America records the highest number of bike buyers (220), followed by Europe (148) and the Pacific (113). This highlights North America as the strongest market for bike purchases in absolute numbers, possibly due to larger sample size or greater demand compared to other regions.

Do individuals with higher incomes tend to be in specific age groups?

The data suggests a strong link between income levels and age categories. Higher-income groups are more frequently found among middle-aged and older individuals, while younger people are clustered in lower income brackets. This relationship indicates that income growth with age could be an underlying factor driving higher bike purchases in the middle-age segment.