# 🚴‍♂️ Bike Sales Dashboard – Analysis Report

**Overview:**

This analysis is based on customer demographic data and their bike purchase decisions. The interactive Excel dashboard provides insights into purchasing patterns segmented by gender, income, age, marital status, education, commute distance, region, and number of children. The goal is to understand what influences customers to purchase bikes.

**Key Insights:**

**📊 Gender vs Bike Purchase**

* **Males (79,688)** are more likely to purchase bikes than **females (65,806)**.
* However, the gap is narrower when comparing actual buyers: **75,833 males** vs **65,000 females**.

**💰 Average Income Analysis**

* Customers who purchased bikes have a significantly **higher average income** than those who didn’t.
* Income appears to be a **strong predictor** of bike purchasing behavior.

**👵 Age Bracket Analysis**

* Middle-aged customers show the **highest bike purchase count**, followed by adolescents.
* Old-aged individuals show the **least engagement** in bike purchases.

**💍 Marital Status**

* **Married individuals** are more likely to purchase bikes than single individuals.

**🎓 Education Level**

* Customers with **Bachelors and Graduate Degrees** have higher bike purchase rates.
* Those with **Partial High School or High School** education show lower purchase rates.

**🌍 Region-wise Analysis**

* **North America** has the highest number of bike purchasers, followed by **Europe**.
* The **Pacific region** has the lowest number of buyers.

**🚶 Commute Distance**

* Customers commuting **1–2 miles and 2–5 miles** are the most likely to buy bikes.
* Those with **more than 10 miles of commute** are the least likely to purchase.

**👨‍👩‍👧 Number of Children**

* Bike purchasing patterns do not show a strong correlation with the number of children.
* Slight peak in purchases among customers with **1 or 2 children**.

**Conclusions**

* **Income and age** are strong influencers in bike purchasing.
* **Educated, middle-aged, married males** from **North America** with **short-to-medium commutes** form the company’s **core customer segment**.
* Targeting campaigns toward this demographic can likely **improve sales conversions**.

**Recommendations**

* Run targeted marketing campaigns for:
  + Middle-aged professionals (especially males) with moderate incomes.
  + Urban areas with short commute distances.
* Offer education-based incentives or referral programs in colleges and graduate institutions.
* Analyze seasonal or regional trends for further refinement.