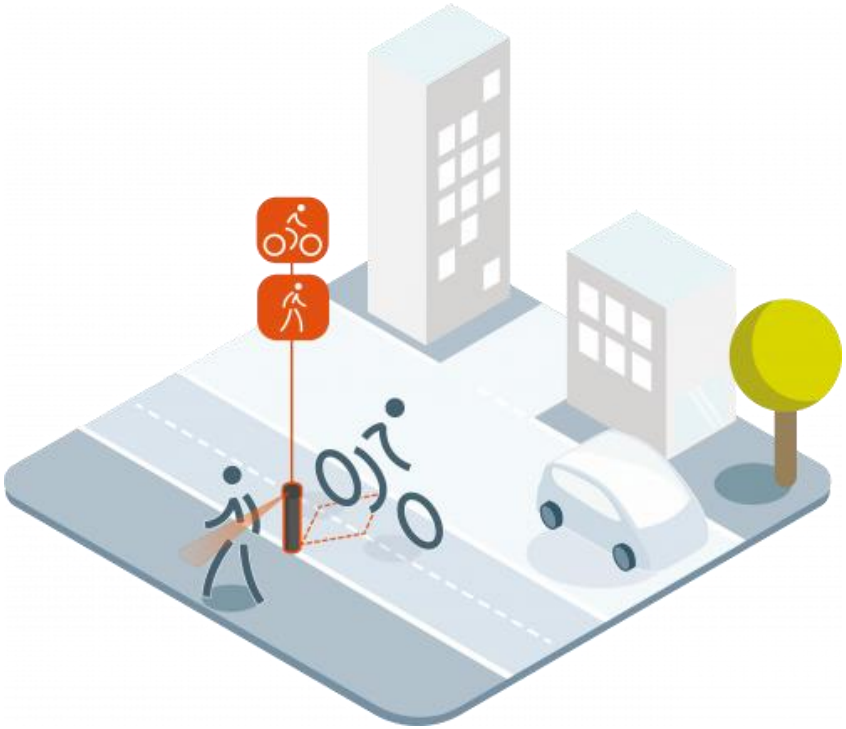
Agenda Item 7: Bicycle and Pedestrian Counters
May 17, 2023

SMART's Pathway Counters

- SMART has **nine pathway counters** installed on the pathway
- **Public input** – need to track pathway use to be able to describe the benefits of the public investment
- Capture **pathway usage,** help plan infrastructure, and justify investments
- Required for existing pathway grants and invaluable for **future planning and grant applications**

Bike Counter Technology

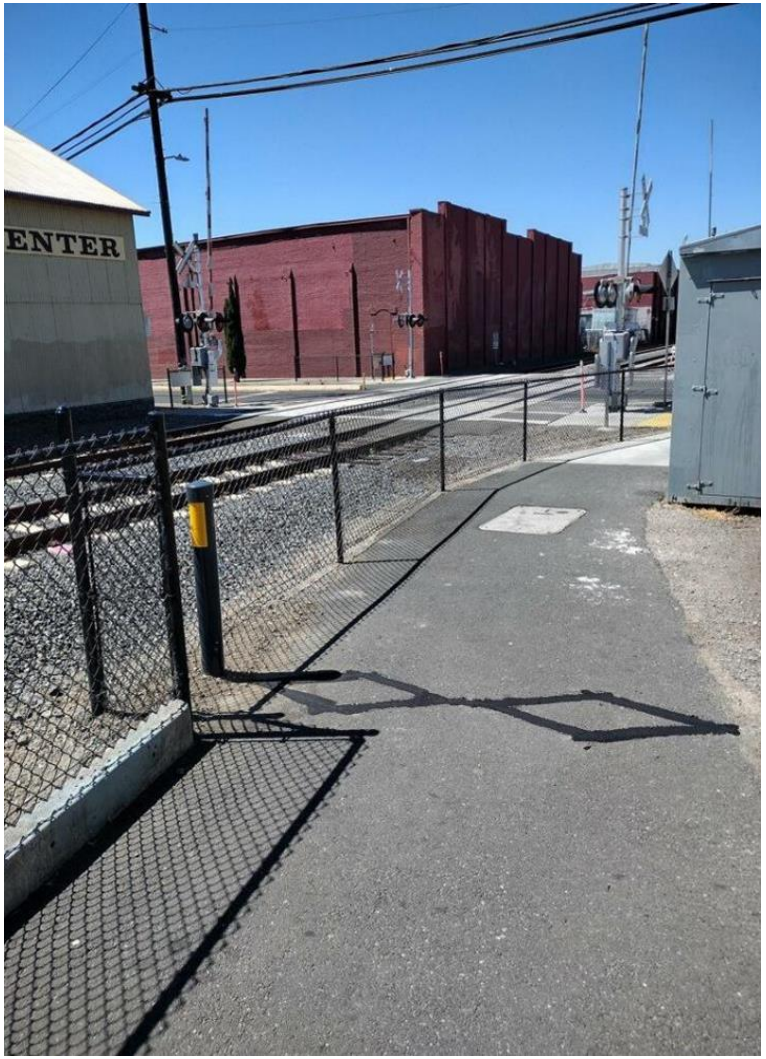
- Combines a passive infrared sensor and an inductive loop sensor to **differentiate between bikes and pedestrians**
- Can handle **large groups** of pedestrians, cyclists and other users with high accuracy
- SMART conducted **data validation counts in the field** and confirmed that the counters were within **+/- 3% margin of error**.



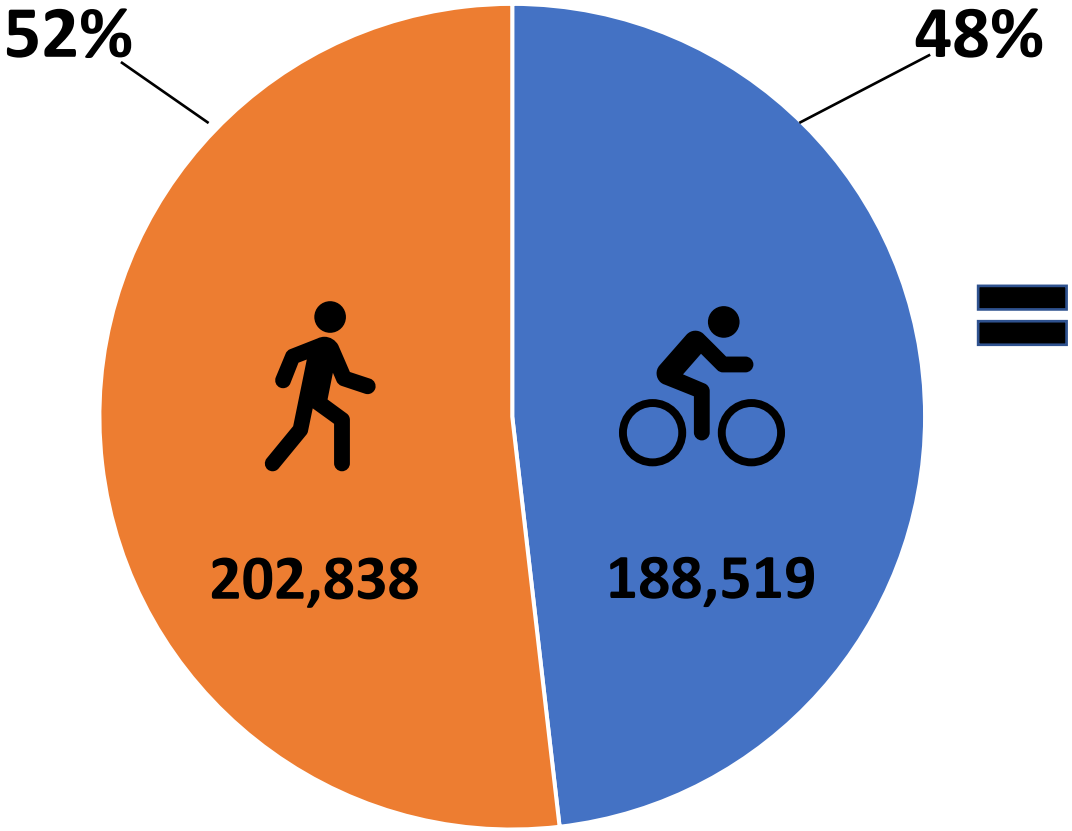
Data Limitations

- Installation location, environmental factors, and tampering can impact the data
  - *Monitor and track abnormal data and adjust it*
- Unlinked Trip Counts
  - *Consider counts as travel volume indicators, not individual travelers*
- Distance between counters

Counts are representative but not comprehensive



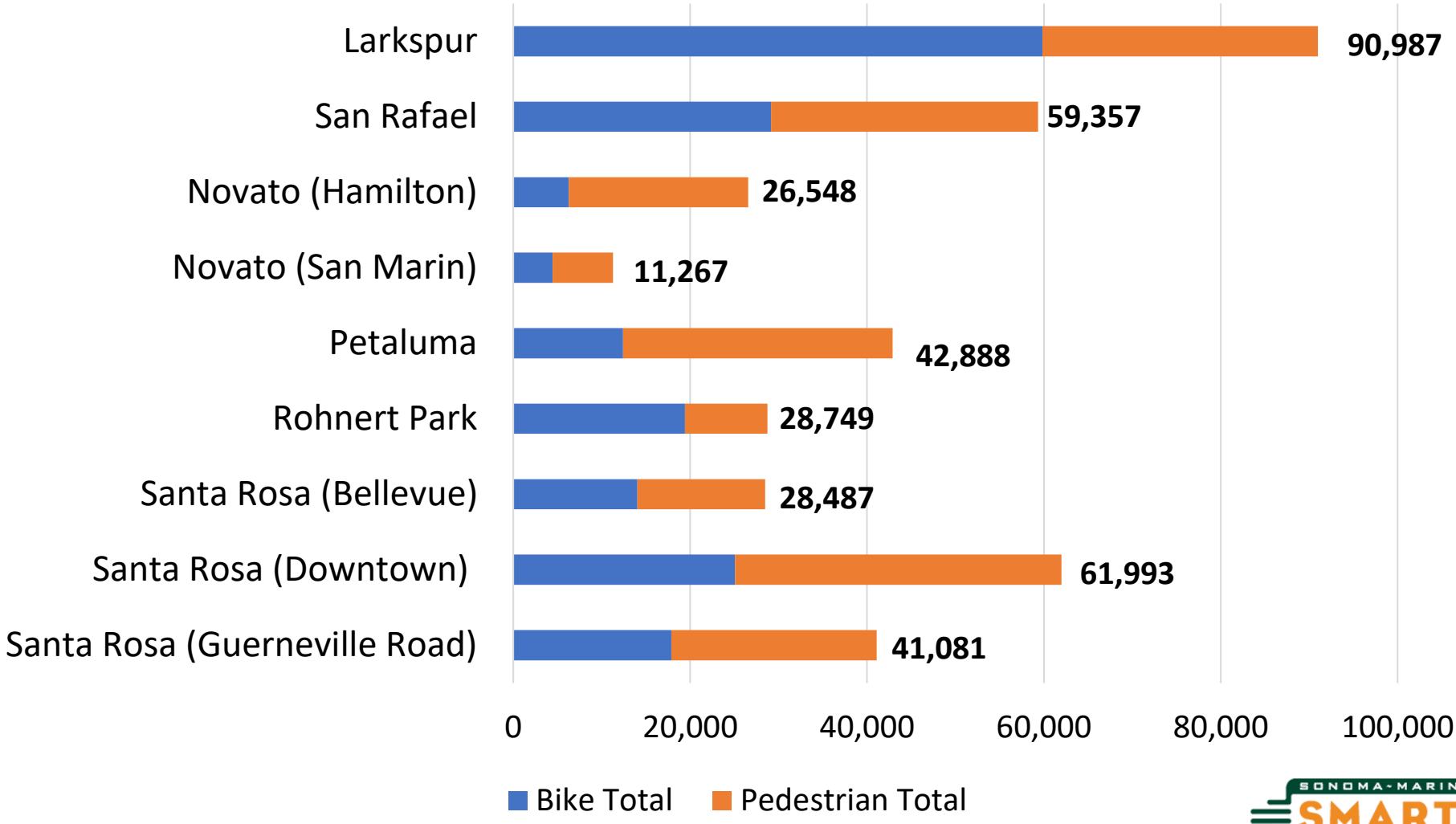
Total Pathway Counts to Date (Aug-Apr)



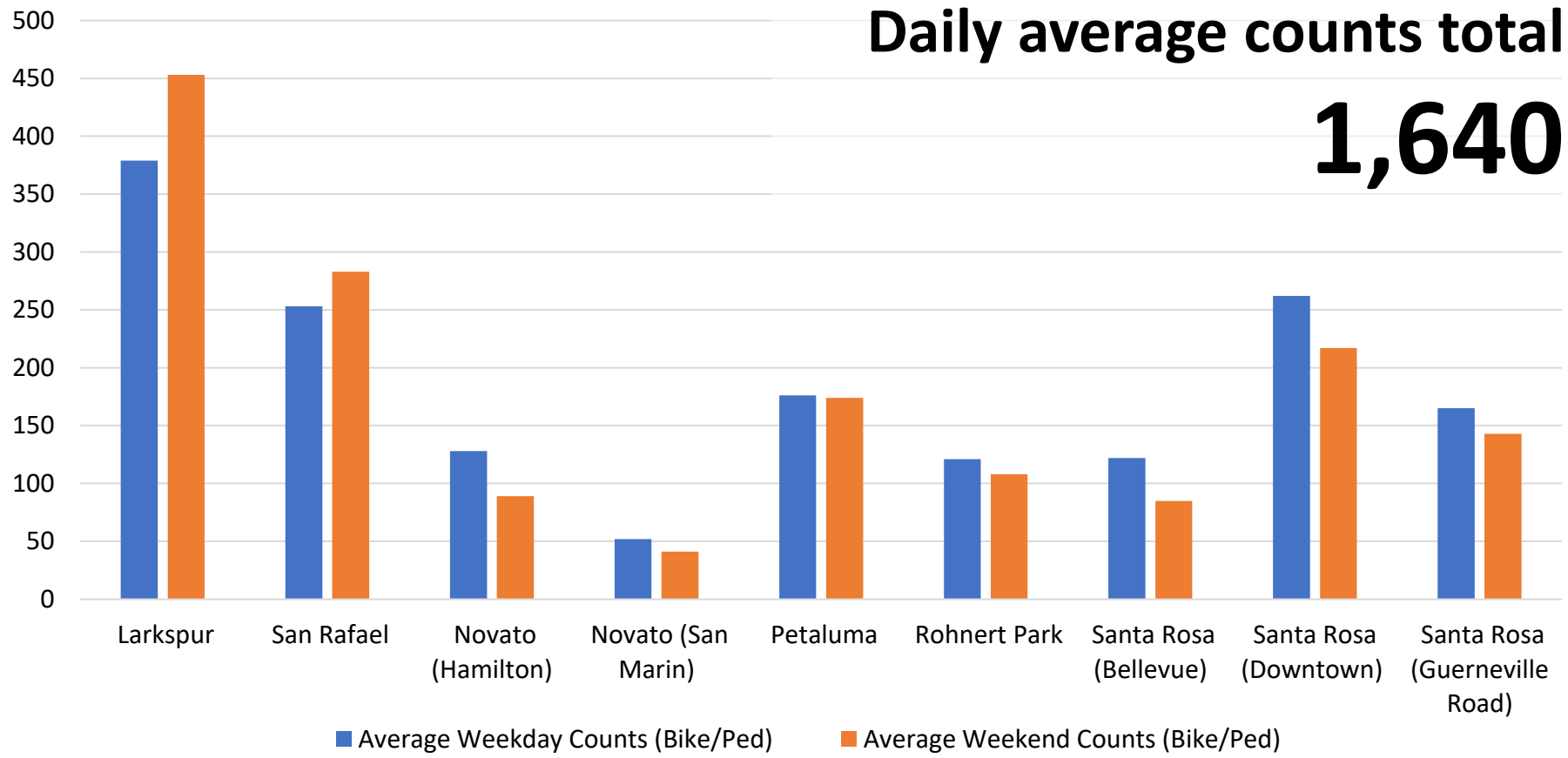
391,357

counts to date

Total Pathway Counts by Location

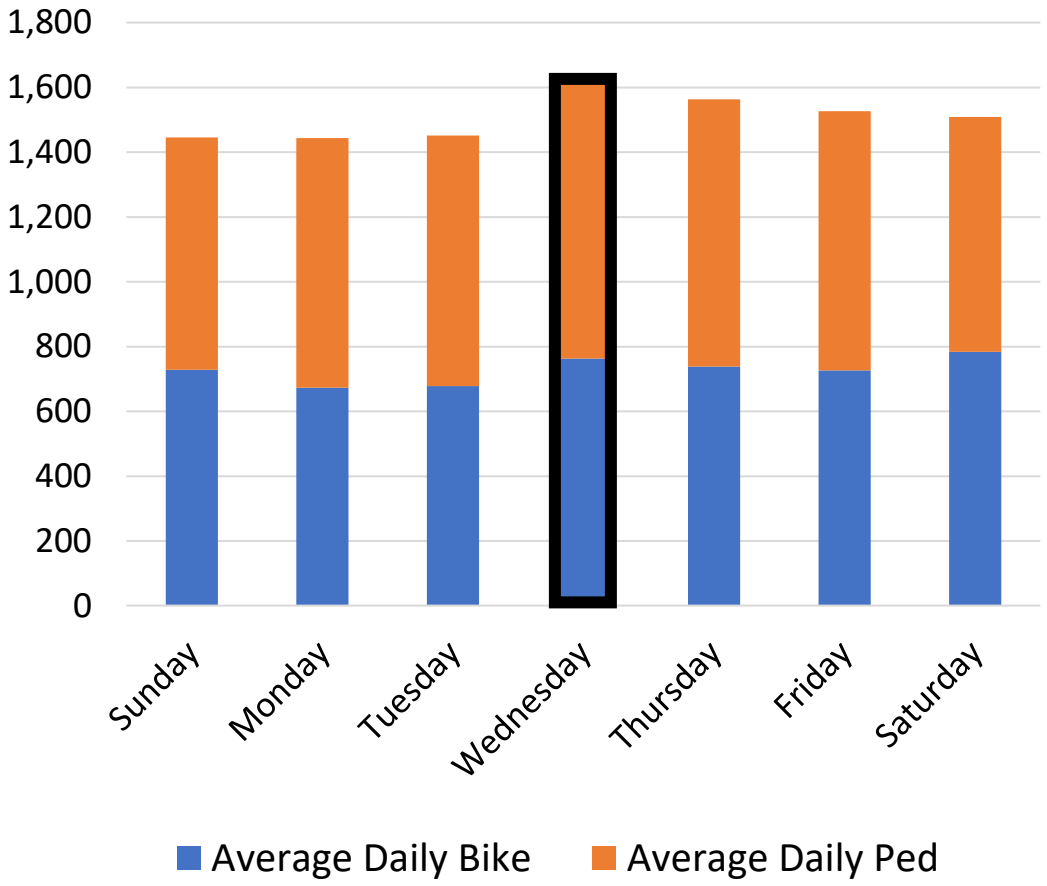


Average Weekday vs. Weekend Users



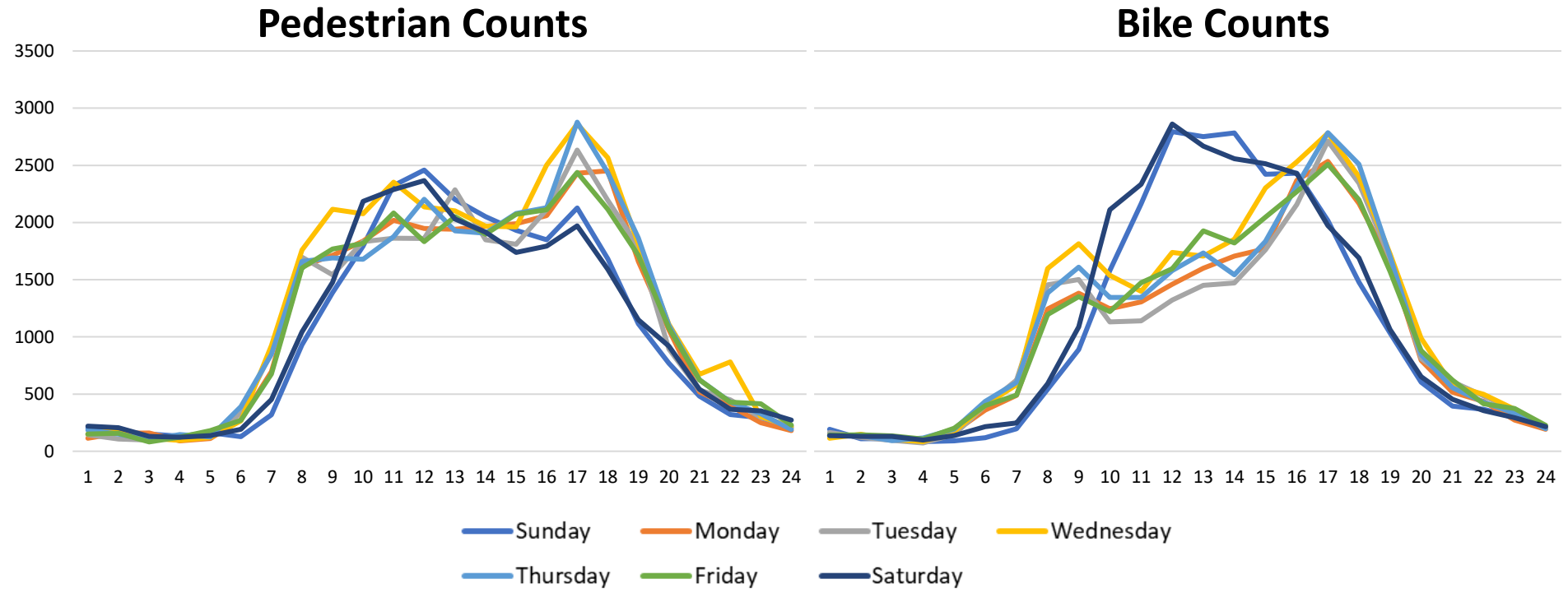
Indicates diverse trip purposes with similar volumes of users on weekdays and weekends

Travel Patterns: Peak Days



- Wednesday is the peak overall
- However, by location peak days differ
- Suggests the pathway is serving more localized than regional trips

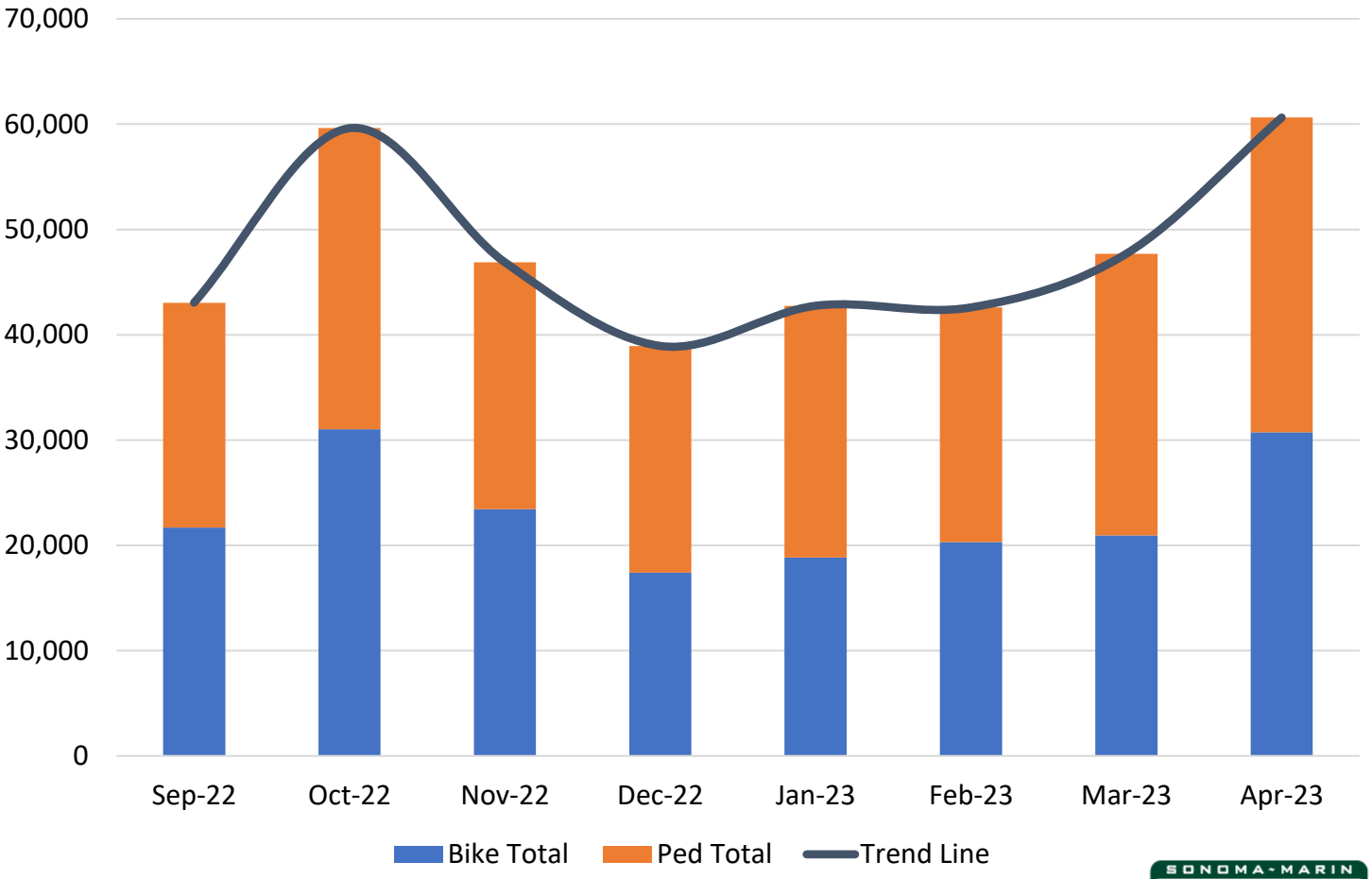
Travel Patterns: Peak Hours



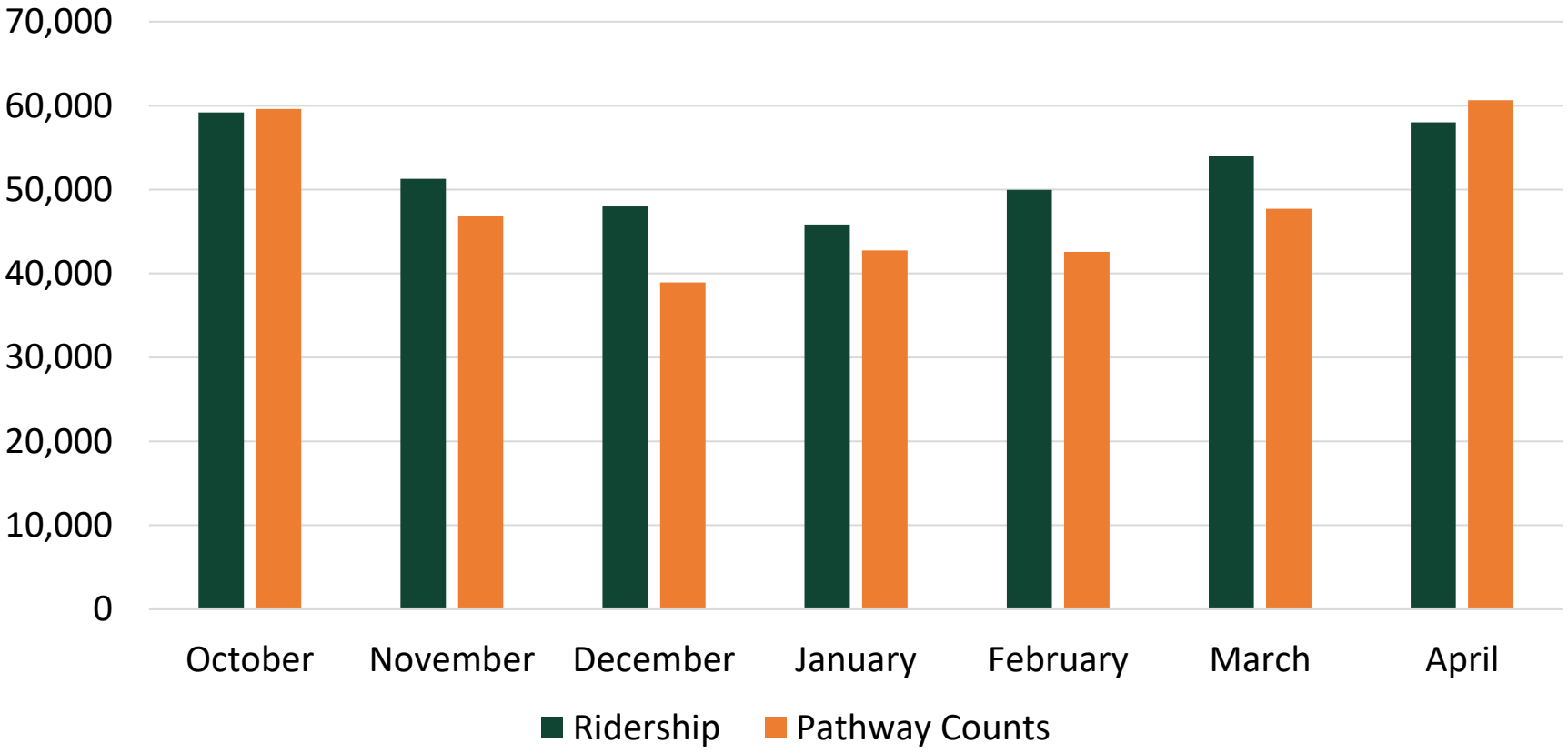
- Pedestrian travel is steady throughout the day.
- Cyclists have a more defined peak period specific to weekday versus weekend trips.

Seasons Impact Bike and Ped Travel

Seasonal conditions greatly affect pathway travel behavior.

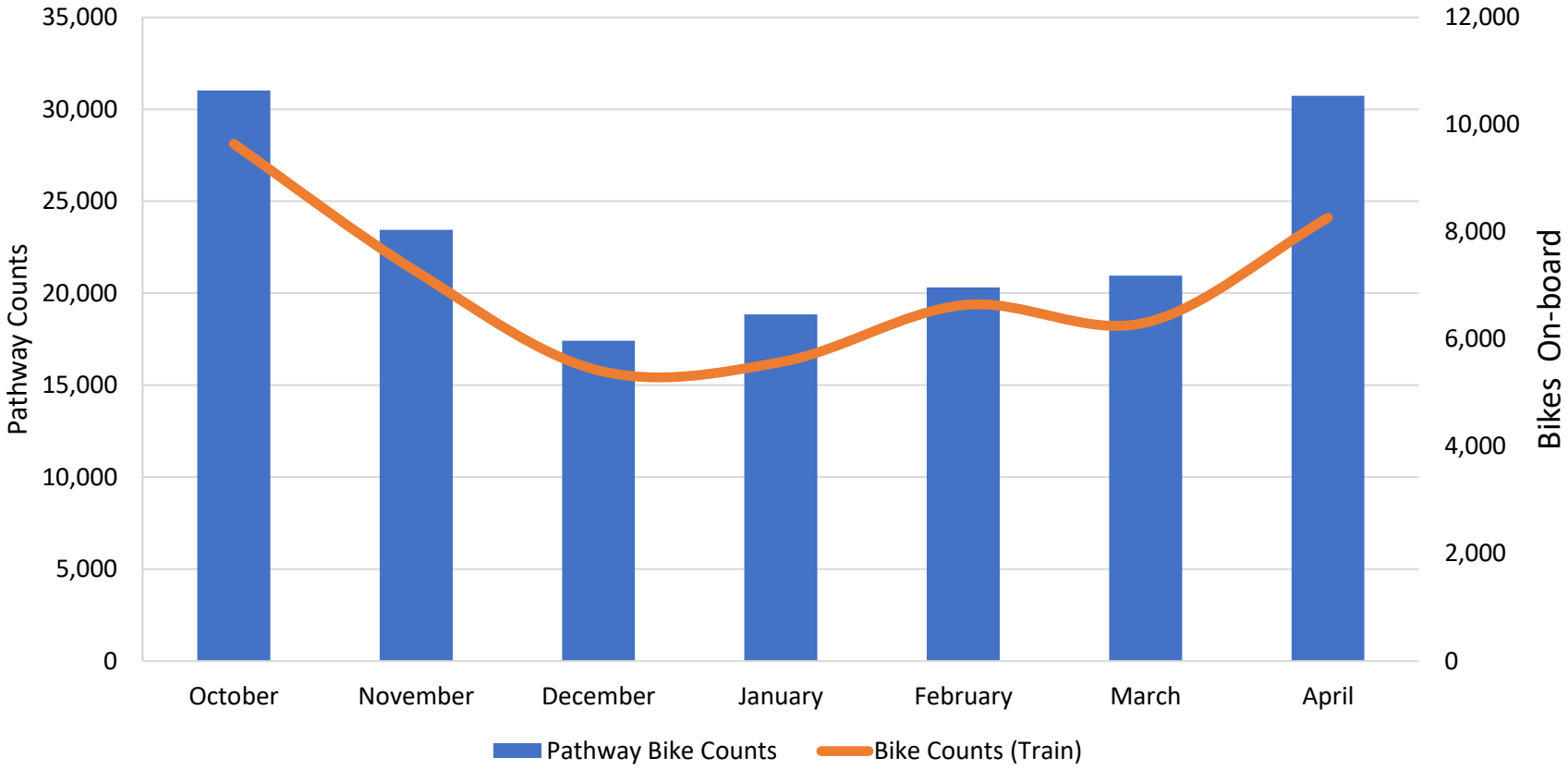


Train and Pathway Travel Correspond



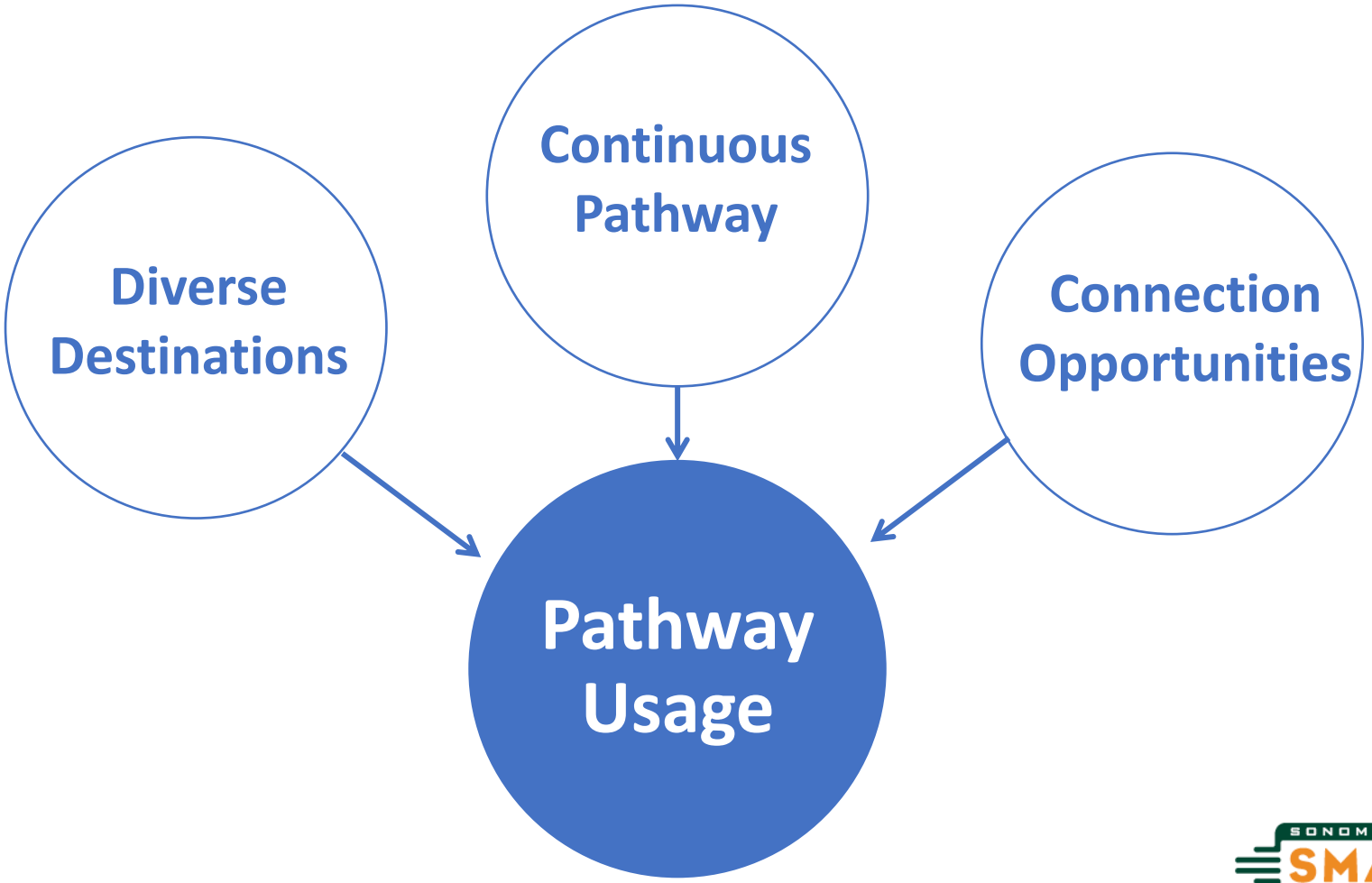
Ridership and pathway counts mirror each other.

Pathway Travel and Bikes On-board



Bike counts on the pathway compared to those on-board the train trend in the same direction

Factors That Contribute to High Counts



Key Takeaways

- Pathway travel happens **consistently** every day
- Travel is **more localized** than regional
- **Weather** affects walkers and bikers
- **Pathway volumes** and **ridership** trends **track closely**
- Pathway is providing **first/last mile connection to the train**
- **Continuous pathway** and a high concentration of **destinations** and **connection** opportunities may contribute to **higher usage**

Next Steps

- Continue to **monitor** and validate counts
- Routine **maintenance** and inspection
- Regular **reporting** to the board on pathway counts
- Use data to **leverage new grant sources** for pathway
- Install counters on **future** pathway segments

Questions?

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