Divvy Bikes

Optimising the Fleet of Bicycles

Divvy Bikes: Optimising the Fleet

About Divvy Bikes

About Divvy Bikes' fleet of bicycles

The benefits that purchasing new bikes has delivered

Why Divvy should consider replacing more bikes

About Divvy Bikes

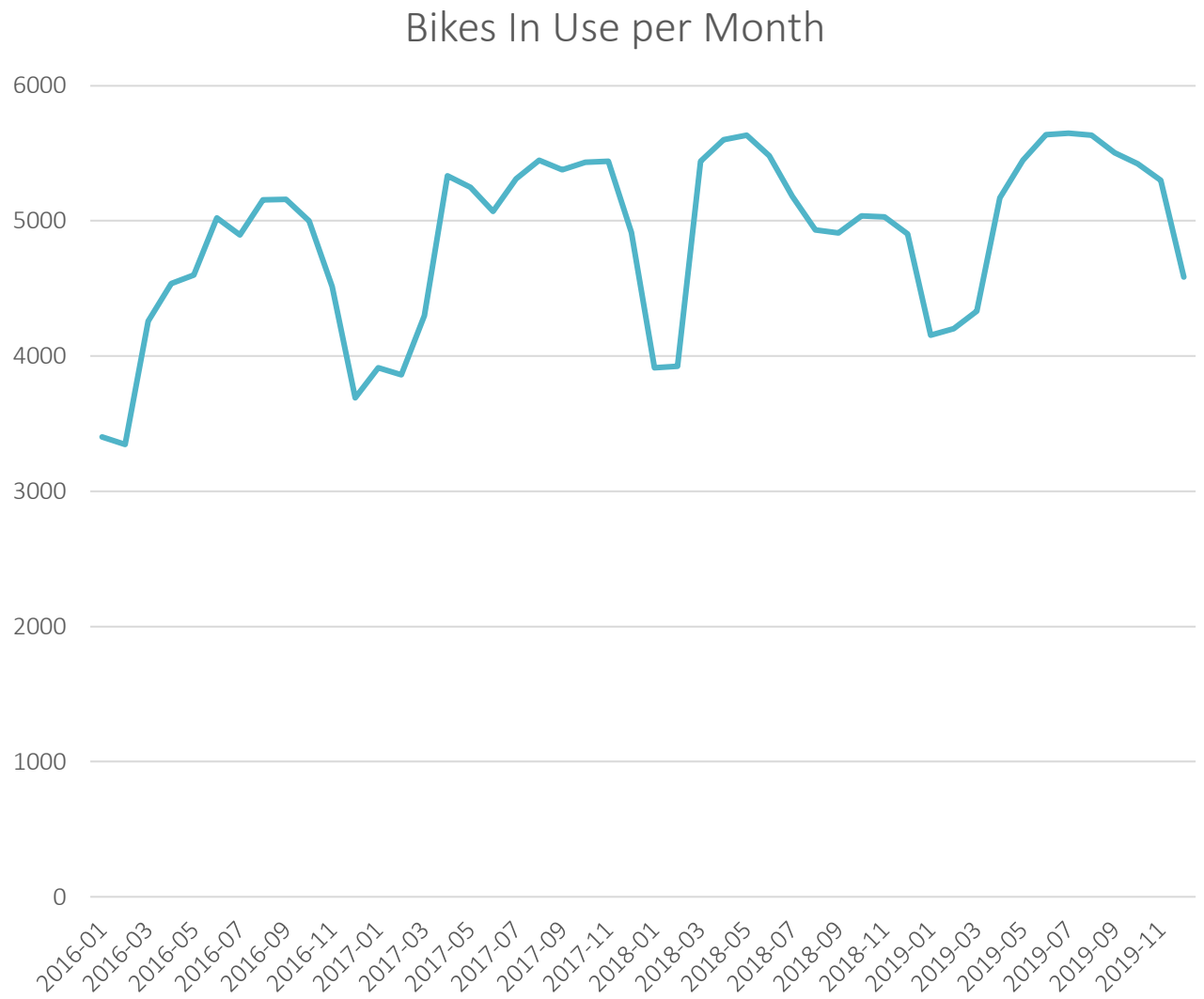
Chicago’s bike share system

Pedal-powered

610 dock stations

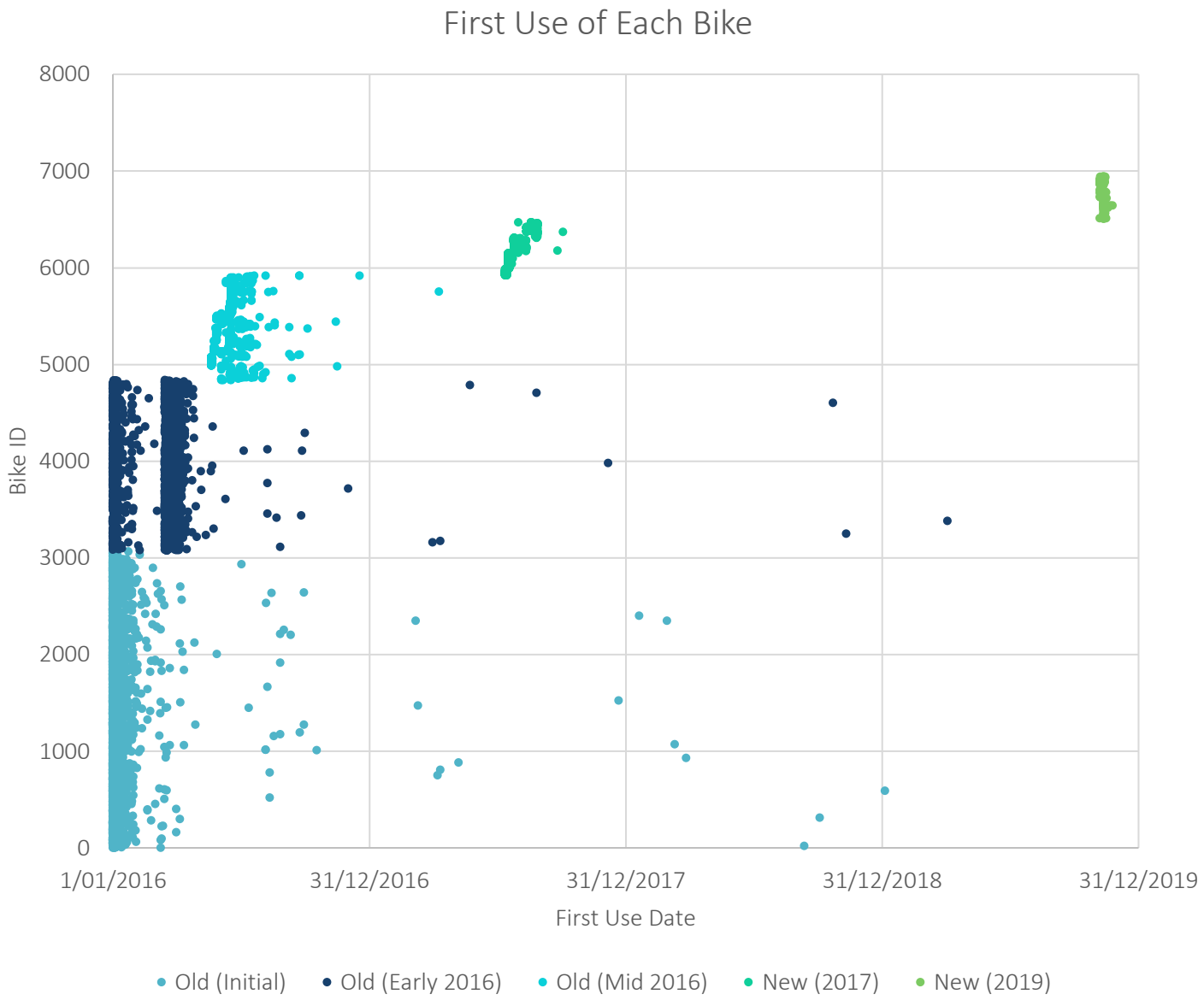
Size of the Fleet

6460 bikes in use from 2016-2019



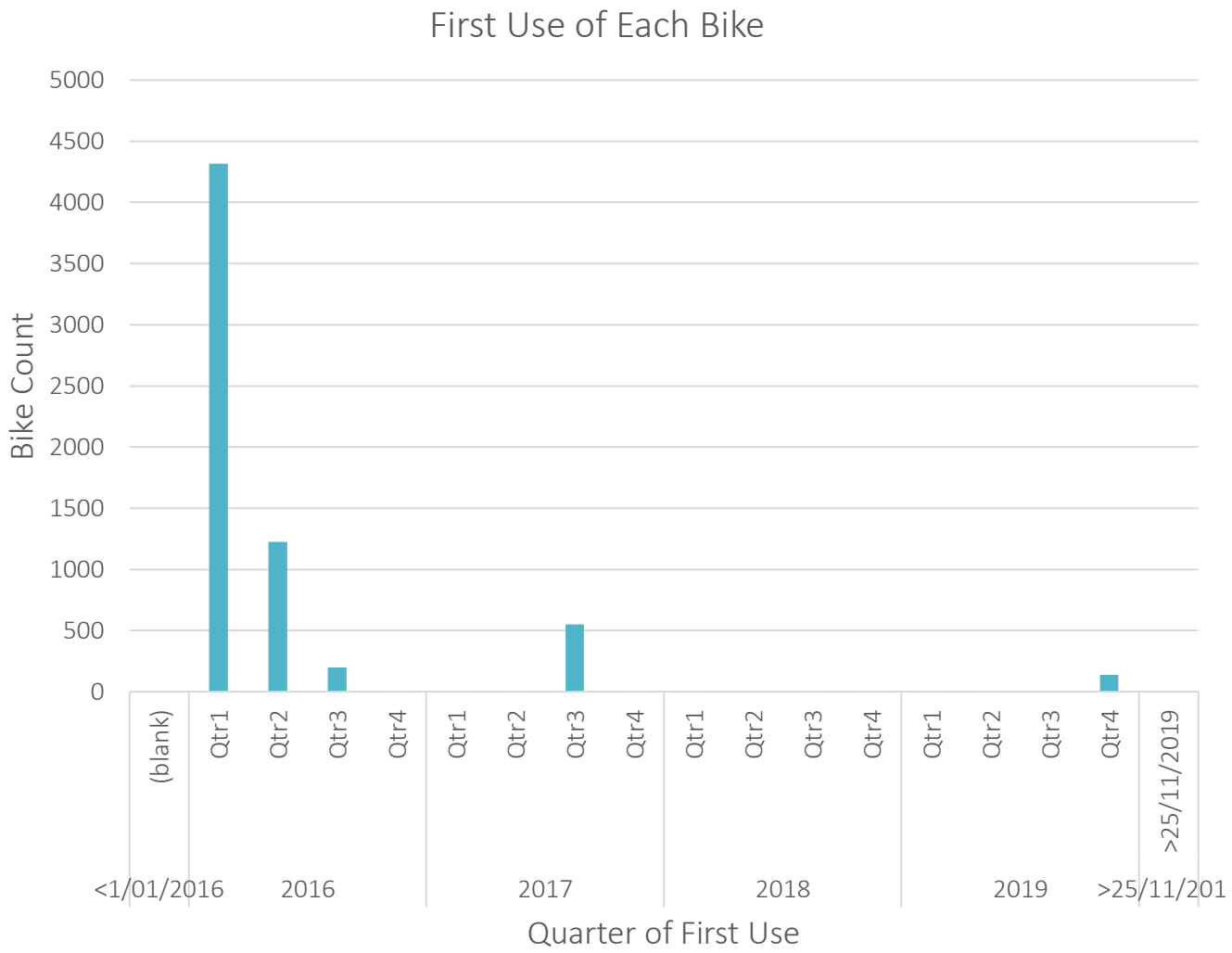
When Bikes Were Introduced

5 distinct intakes



When Bikes Were Introduced

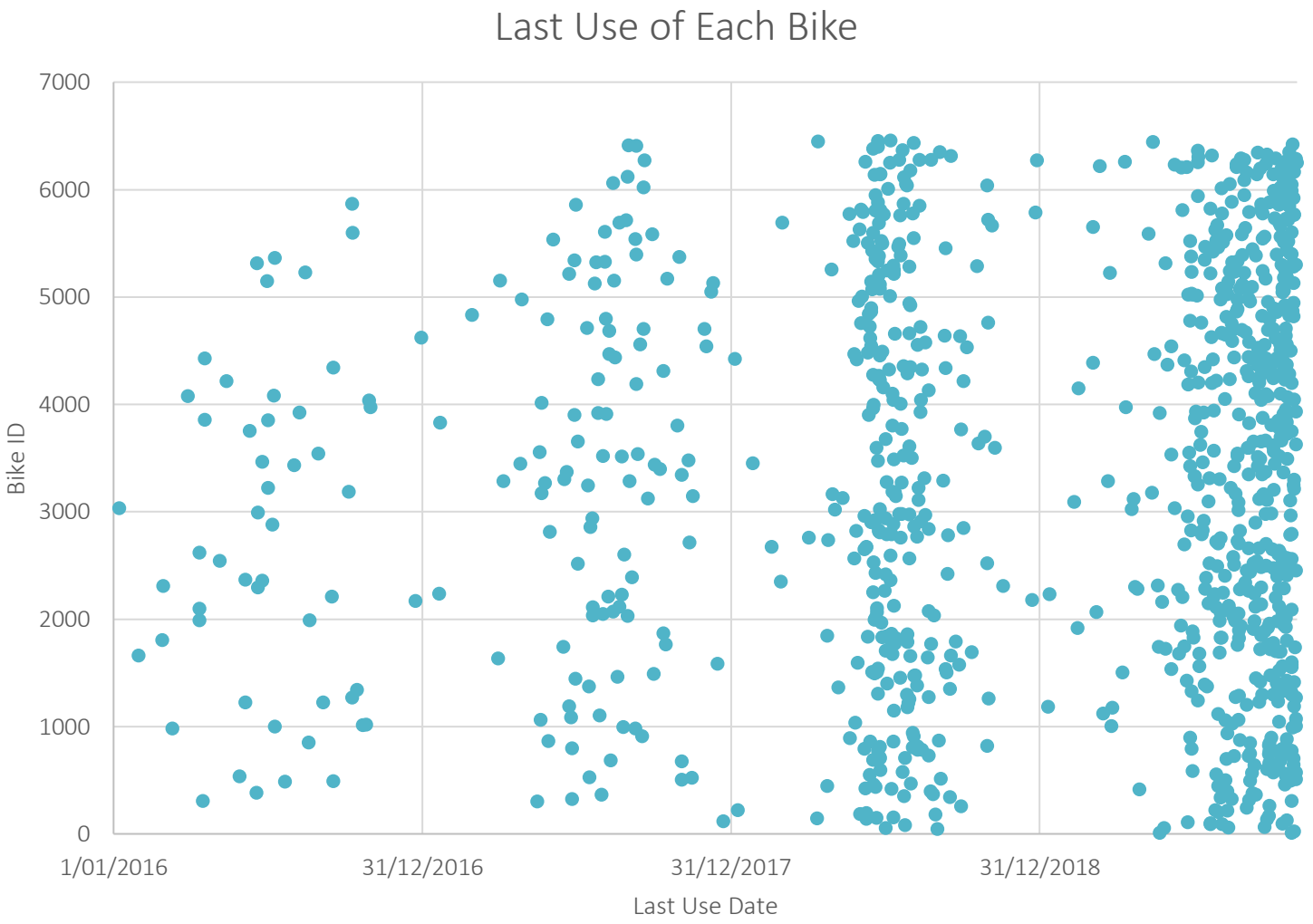
Multiple distinct intakes



When Bikes Were Removed

Concentrated in summer

Increasing over the years



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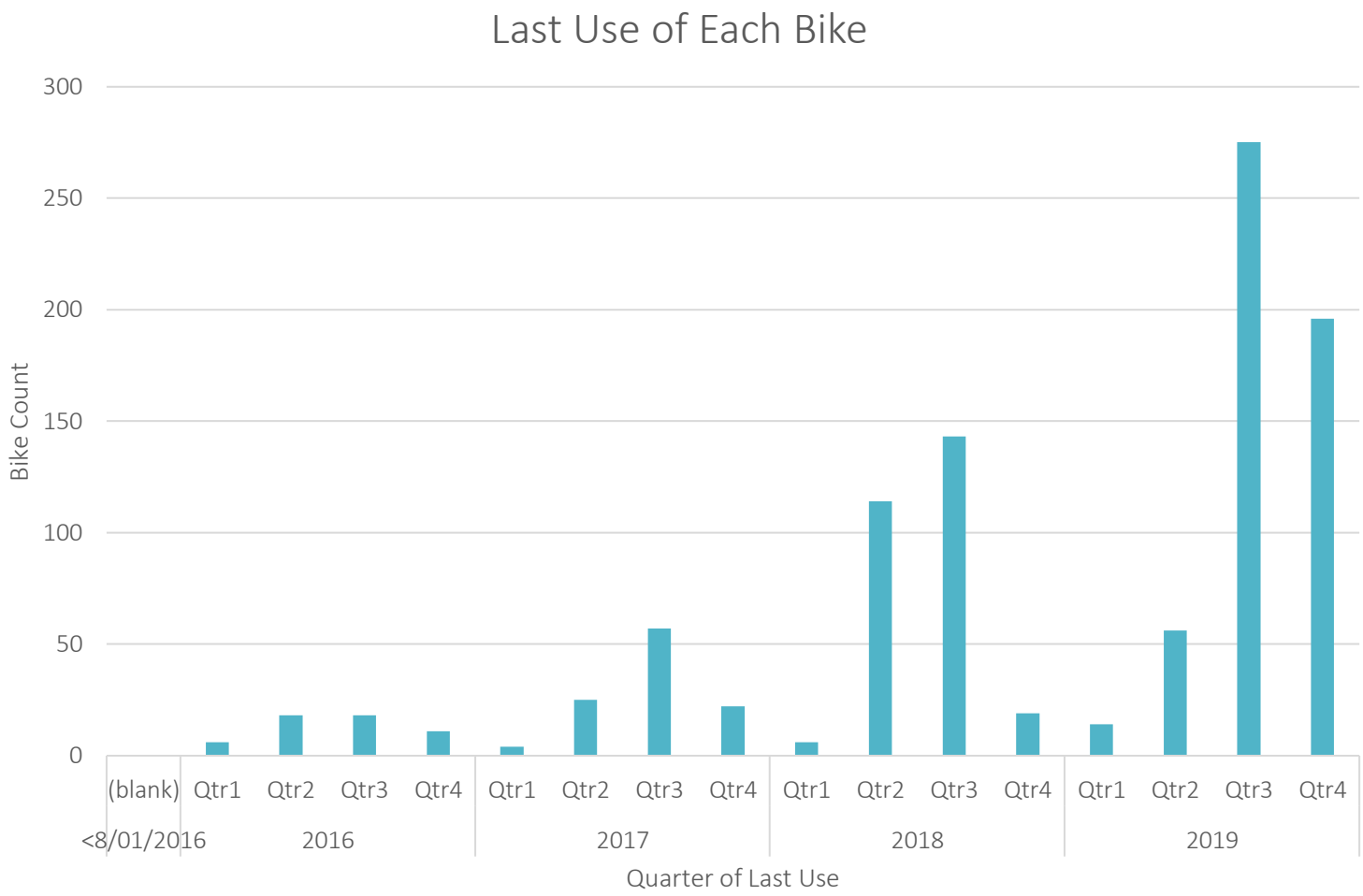

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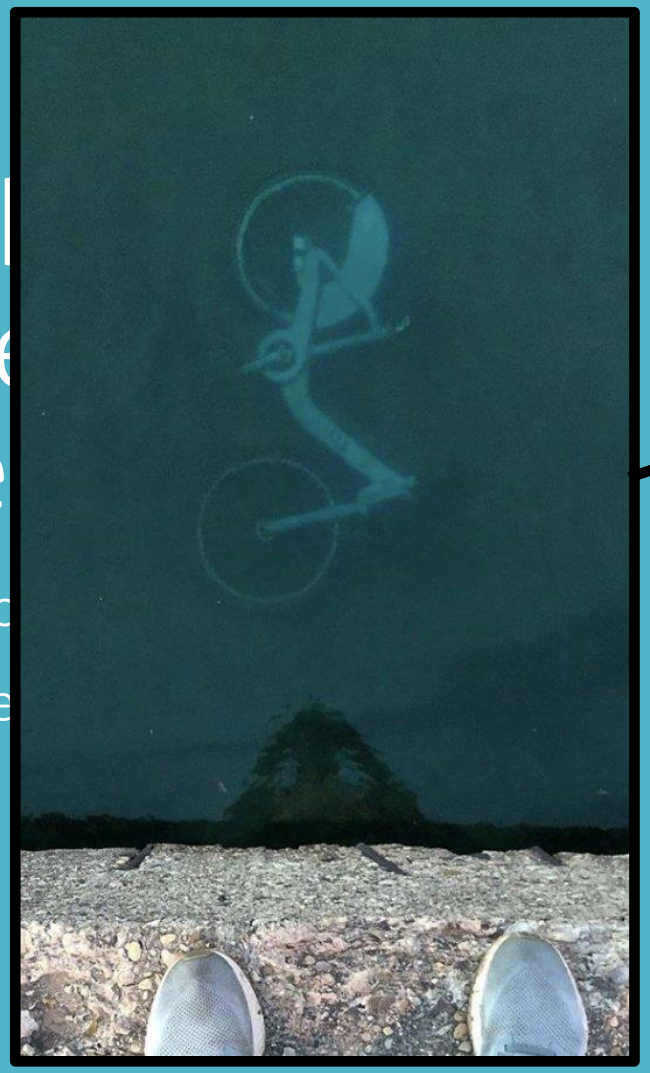
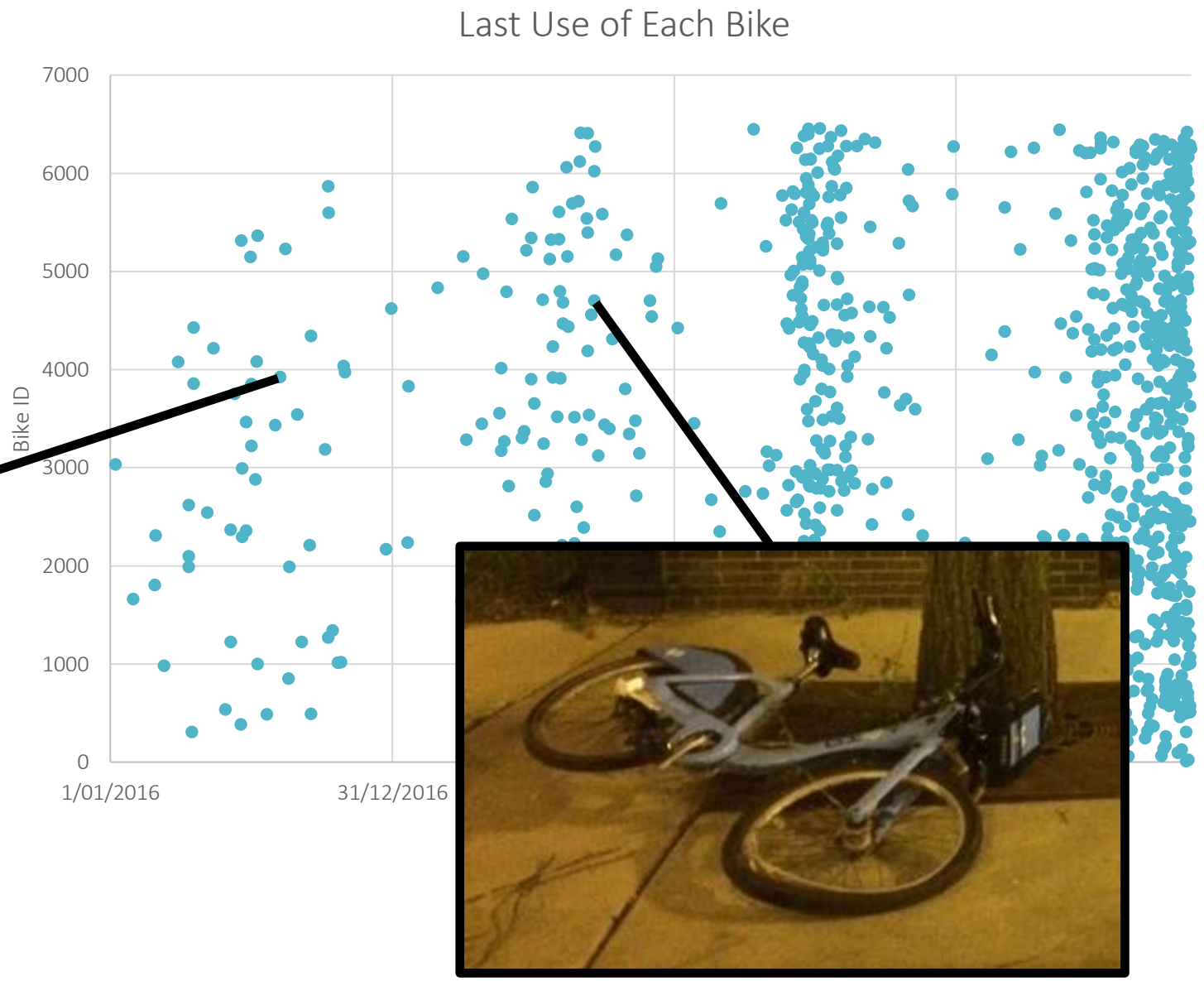
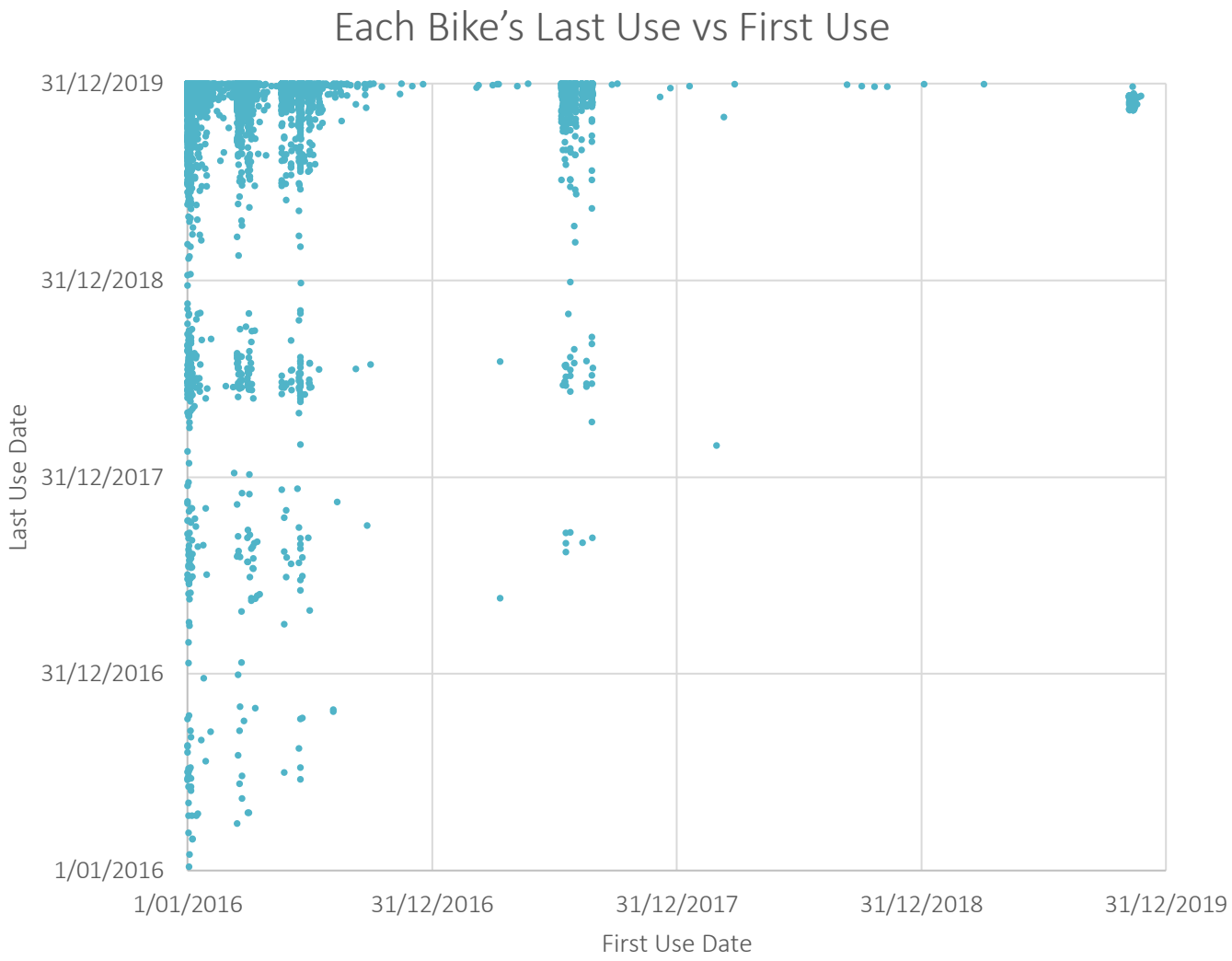




Why Bikes Were Removed

The dates that bikes were first used and last used are uncorrelated (0.039)

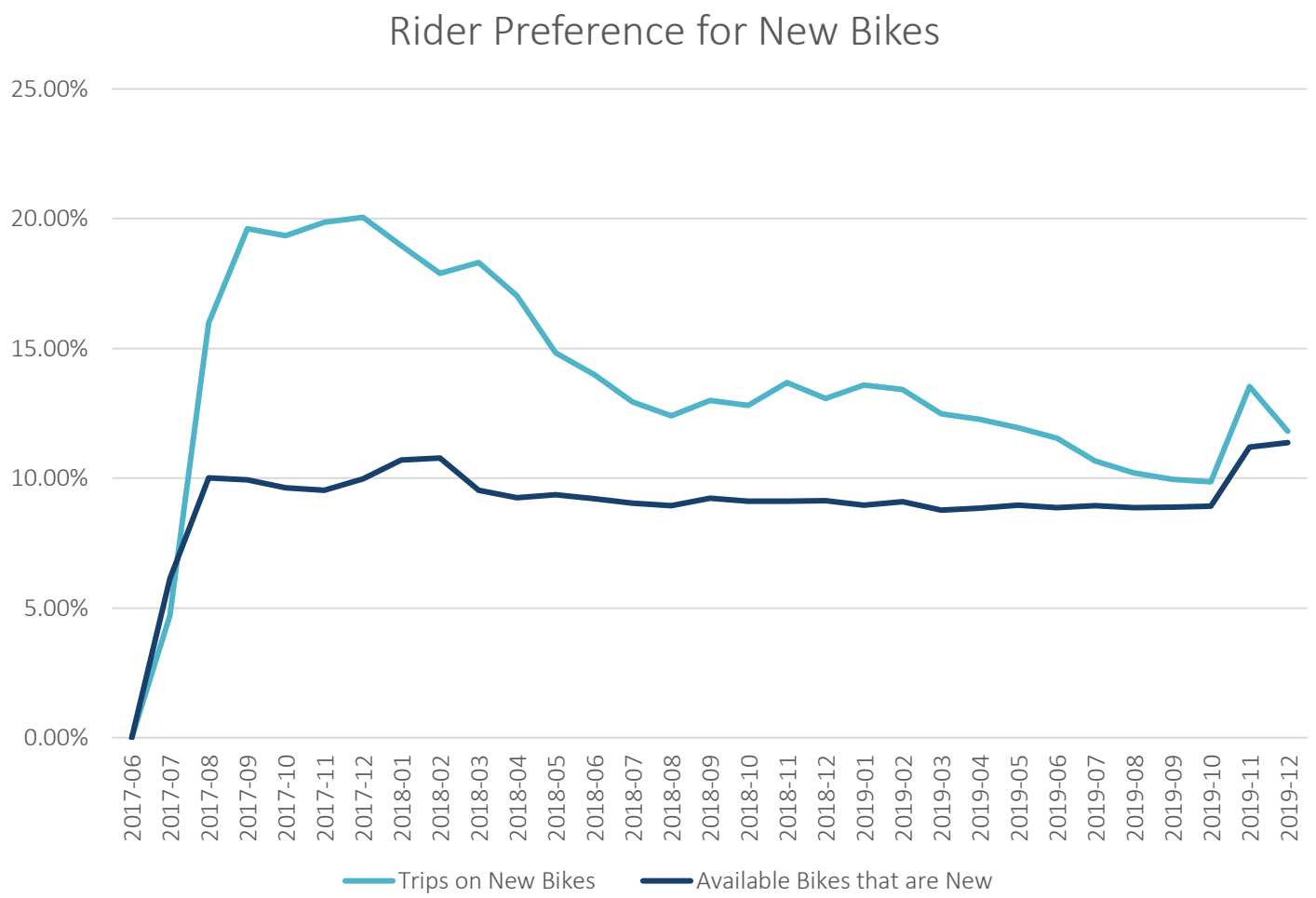
Not failing due to age



Rider Preference

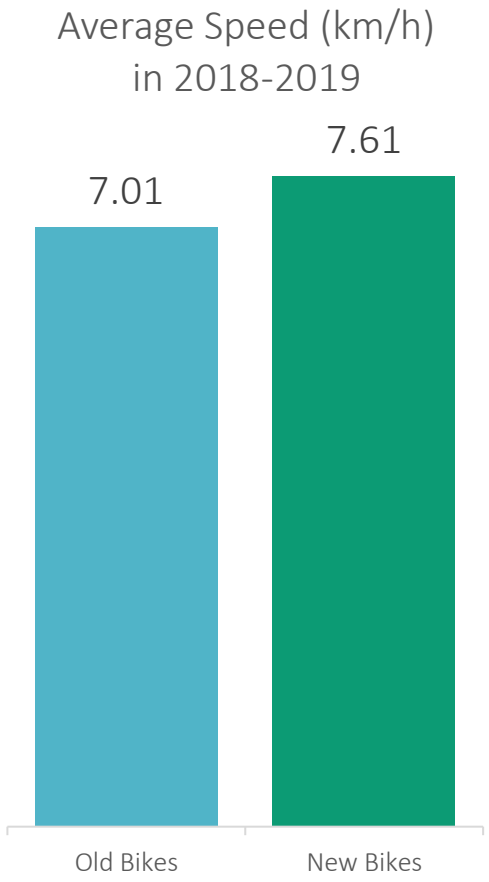
Initially new bikes ridden twice as often on average

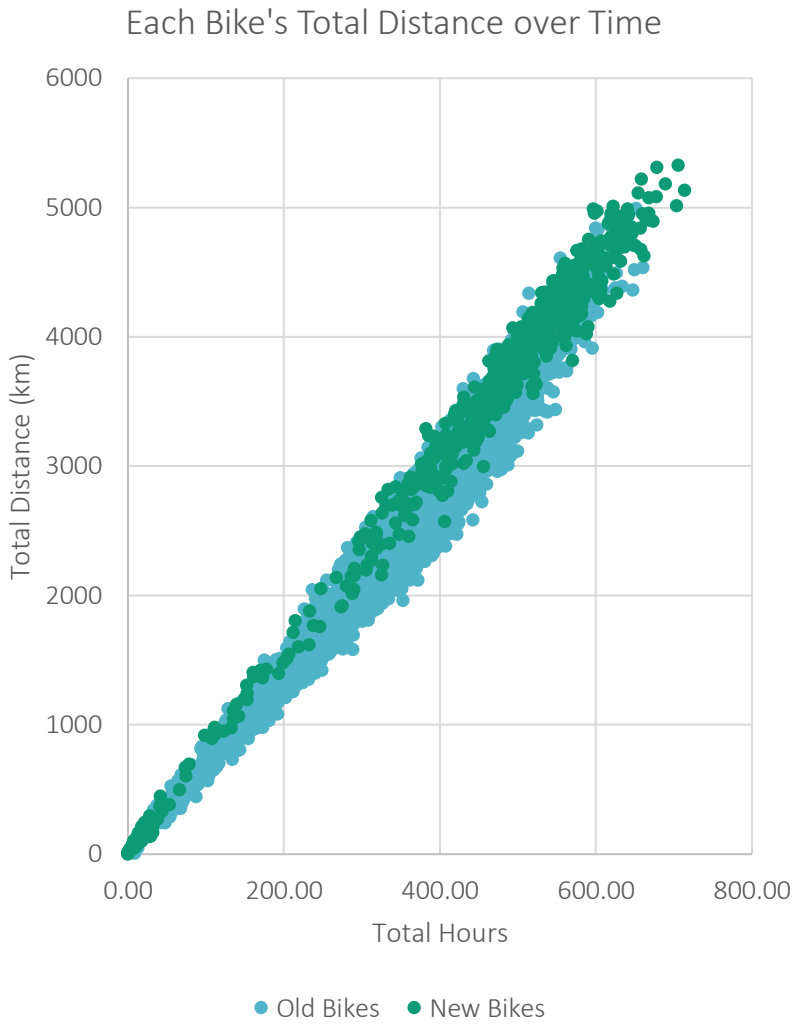
Effect decreases over time



Trip Speeds

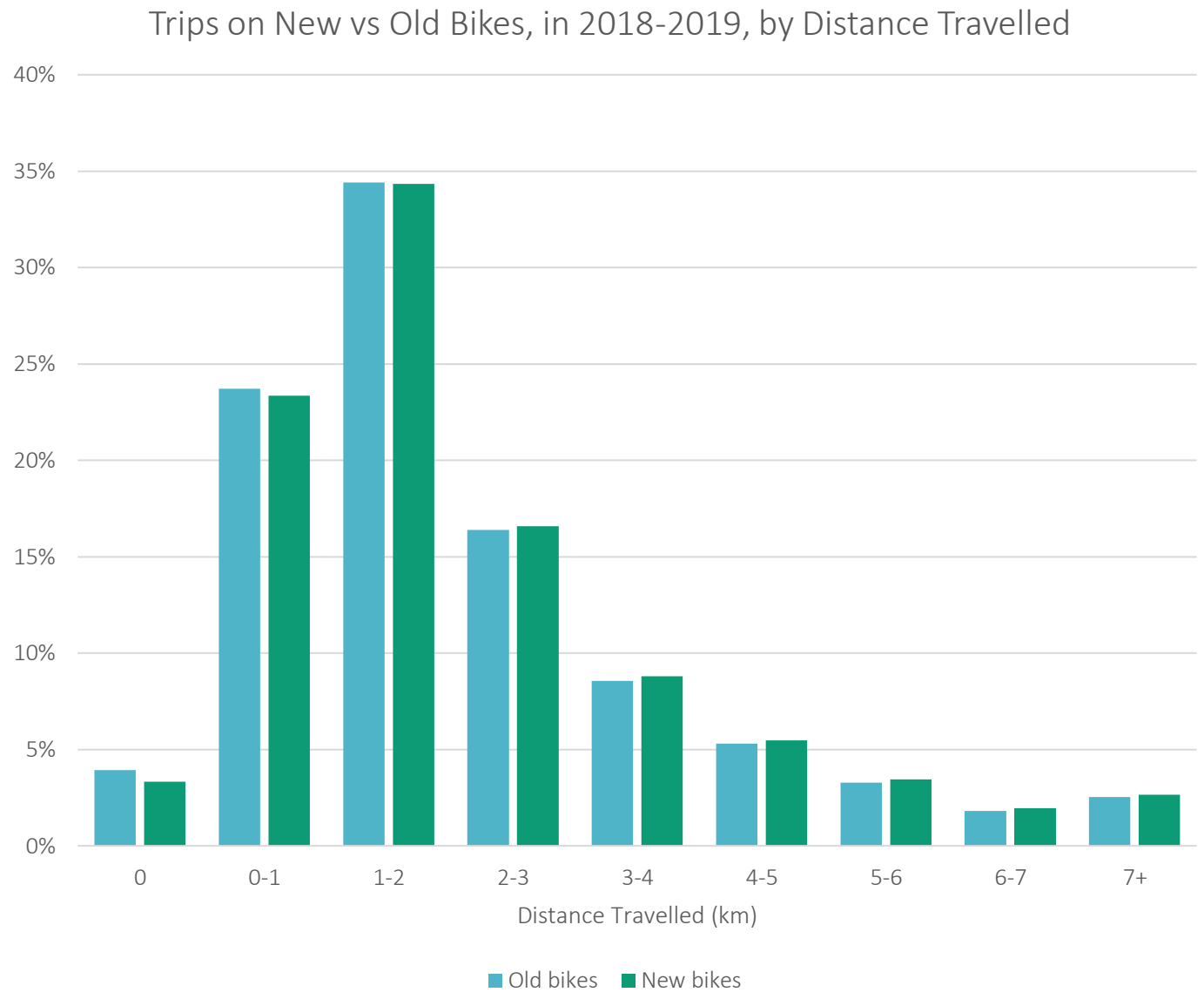
New bikes average faster speeds





Trip Distances

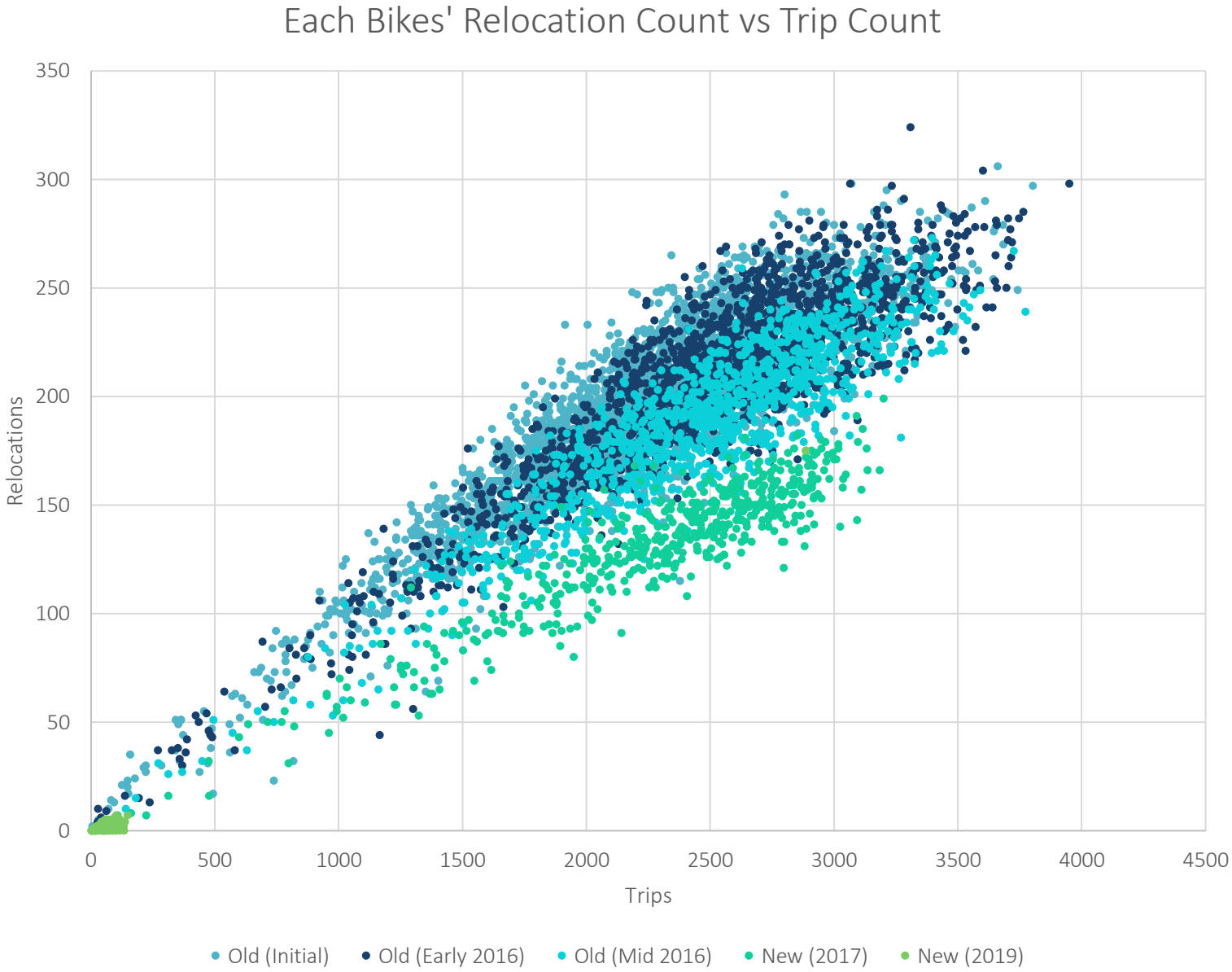
Bike age has minimal effect on trip distances



Bike Relocations

Old bikes:
A relocation every 12.0 trips

New bikes:
A relocation every 17.5 trips



Considerations for the Future

New bikes are an up-front cost

Although not required for reducing bicycle failure

Deliver ongoing benefits:

- Clear customer preference
- Likely improve customer satisfaction
- Opportunity to deliver improved product
- Reduced service cost