

Bicycle Program Street Transportation Dept.

Presentation for Environmental Quality and Sustainability Committee

August 9, 2018

- Most recent bike planning documents and plans
 - Current key performance indicators and progress in quantifiable terms
- Update on Grid Bike
 - Key Performance Indicators
 - Requirements, standards, and how they are performing to date
 - Further update on current bike share should include indicators beyond ridership
- Dockless and electric assist bikes, electric scooters
- Discuss bike share issues and system on a Valley-wide basis
 - Please provide an available update on other city bike share (Scottsdale, Tempe)
 - Benefits and public policy issues as they have arisen
- Discuss Phoenix bike share as it pertains to other cities and dockless systems (including scooters, et cetera)

Current key performance indicators and progress in quantifiable terms

Protected Bike Lane 15th Ave from Van Buren to Jefferson – Oct 2017

2016 Bicycle facility improvements / additions:

| | | |
|---|----------------------|---|
| Cholla Street | from 40th | to 44th Streets |
| Roosevelt Street | from 4th | to 7th Streets |
| Indian School Road | from 7th Avenue | to 3rd Street |
| Hearn Road | from 7th | to 12th Street |
| Virginia Avenue | from 7th Street | to Central Avenue |
| Acoma Drive | from 44th Street | to Tatum Boulevard |
| 55th Avenue | from Dobbins | to Baseline Road |
| Cholla Street | from 24th | to 32nd Street |
| 28th Street | from Bell Road | to Union Hills Drive |
| 63rd Avenue | from Durango | to Sonora Street |
| 111th Avenue | from Campbell Avenue | to Indian School Road |
| 39th Avenue | from Greenway | to Bell Roads for Safe Routes to School |
| Durango Street | from 63rd | to 67th Avenue |
| South Mountain Ave | from 51st Avenue | to Mansa Drive |
| Mansa Drive | from South Mountain | to 47th Avenue |
| Lincoln Street | from 7th | to 2nd Avenue |
| 48th Street | from Washington | to Van Buren Street |
| 39th Avenue | from Missouri Avenue | to Bethany Home Road |
| Nevitt Bridge Path/46th Place from Western Canal to Vineyard Road | | |

Current key performance indicators and progress in quantifiable terms

2017 Bicycle facility improvements / additions:

| | FROM: | TO: | COMMENTS: |
|------------------|------------------|----------------------|---|
| 34TH ST | LAKEWOOD PKWY | CHANDLER BLVD | |
| 38TH ST | LAKEWOOD PKWY | CHANDLER BLVD | |
| WOODLAND DR | LAKEWOOD PKWY | 40TH ST | |
| BRIARWOOD TER | LAKEWOOD PKWY | 40TH ST | |
| FRYE RD | LAKEWOOD PKWY | 32ND ST | |
| ROOSEVELT ST | 10TH ST | 16TH ST..... | Shared Lane Markings 7 th to 10 th Street |
| CHOLLA ST | TATUM BLVD | 56TH ST..... | Converted from Bike Route to Bike Lane |
| ADAMS ST | 27TH AVE | 19TH AVE..... | Bicycle Master Plan number 8 |
| JEFFERSON ST | 22ND AVE | 27TH AVE..... | Bicycle Master Plan number 8 |
| CHANDLER BLVD | 17TH AVE | SHAUGHNESSEY RD..... | Installed by Loop 202 partners |
| 15TH AVE | JEFFERSON ST | MARICOPA FWY | |
| 15TH AVE | VAN BUREN ST | JEFFERSON ST..... | PROTECTED Bike Lane with Flex Posts |
| 3RD AVE | JACKSON ST | GRANT ST | |
| CAMPBELL AVE | 99TH AVE | 103RD AVE | |
| CAMPBELL AVE | 103RD AVE | 107TH AVE | |
| LOWER BUCKEYE RD | 51ST AVE | 43RD AVE | |
| LOWER BUCKEYE RD | 43RD AVE | 39TH AVE | |
| MARYVALE PKWY | 51ST AVE | CLARENDON AVE..... | PAINT BUFFERED BIKE LANE |
| 53RD AVE | INDIAN SCHOOL RD | MARYVALE PKWY..... | PAINT BUFFERED BIKE LANE |
| CLARENDON AVE | 55TH AVE | MARYVALE PKWY | |
| 32ND ST | WOOD ST | BROADWAY RD..... | PAINT BUFFERED BIKE LANE (east side only) |
| YORKSHIRE DR | 31ST AVE | 27TH AVE..... | PAINT BUFFERED BIKE LANE |

For Jan. 1, 2016 through June 30, 2017, the city is reporting 79 miles of bicycle lanes installed in an annual report.

Sources included:

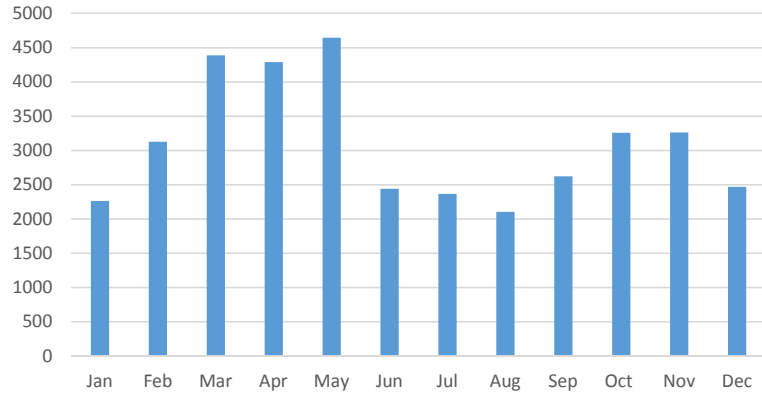
- T2050 Bicycle Lane-Miles (from Pavement Maintenance): 11.1 lane-miles;
- AHUR Bicycle Lane-Miles (from Pavement Maintenance): 26.6 lane-miles;
- Bicycle Master Plan: 21.0 lane-miles;
- Traffic Services (NTMT) Bicycle Lane-Miles: 19.1 lane-miles;
- Private Development Bicycle Lane-Miles: 1.3 lane-miles;
- **Total Bicycle Lane-Miles: 79.1 lane-miles**

FY18 reports 54.5 miles of bikeways installed

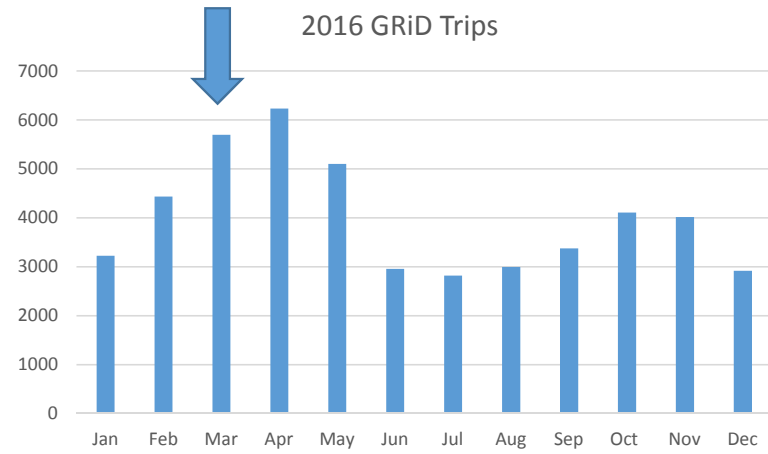
Update on GRiD Bike Share

Mesa launches March 17, 2016
 Tempe launches May 15, 2017

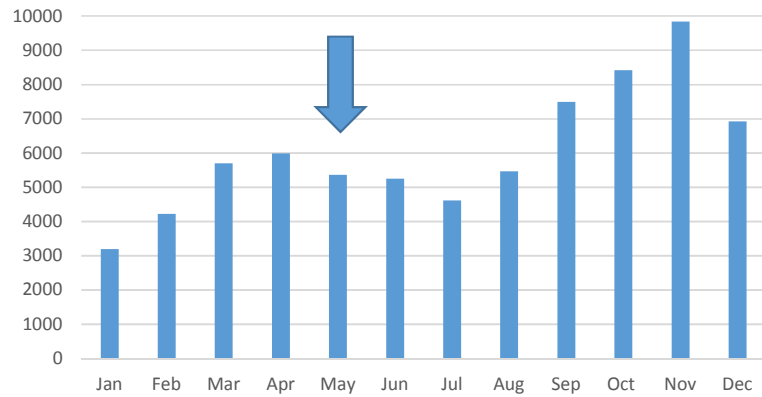
2015 GRiD Trips



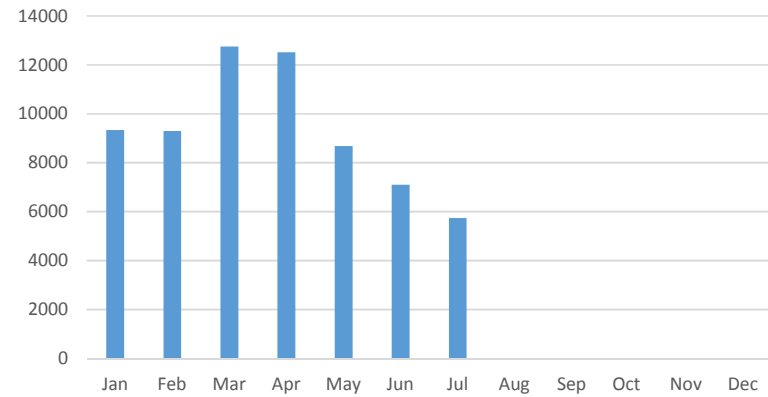
2016 GRiD Trips



2017 GRiD Trips

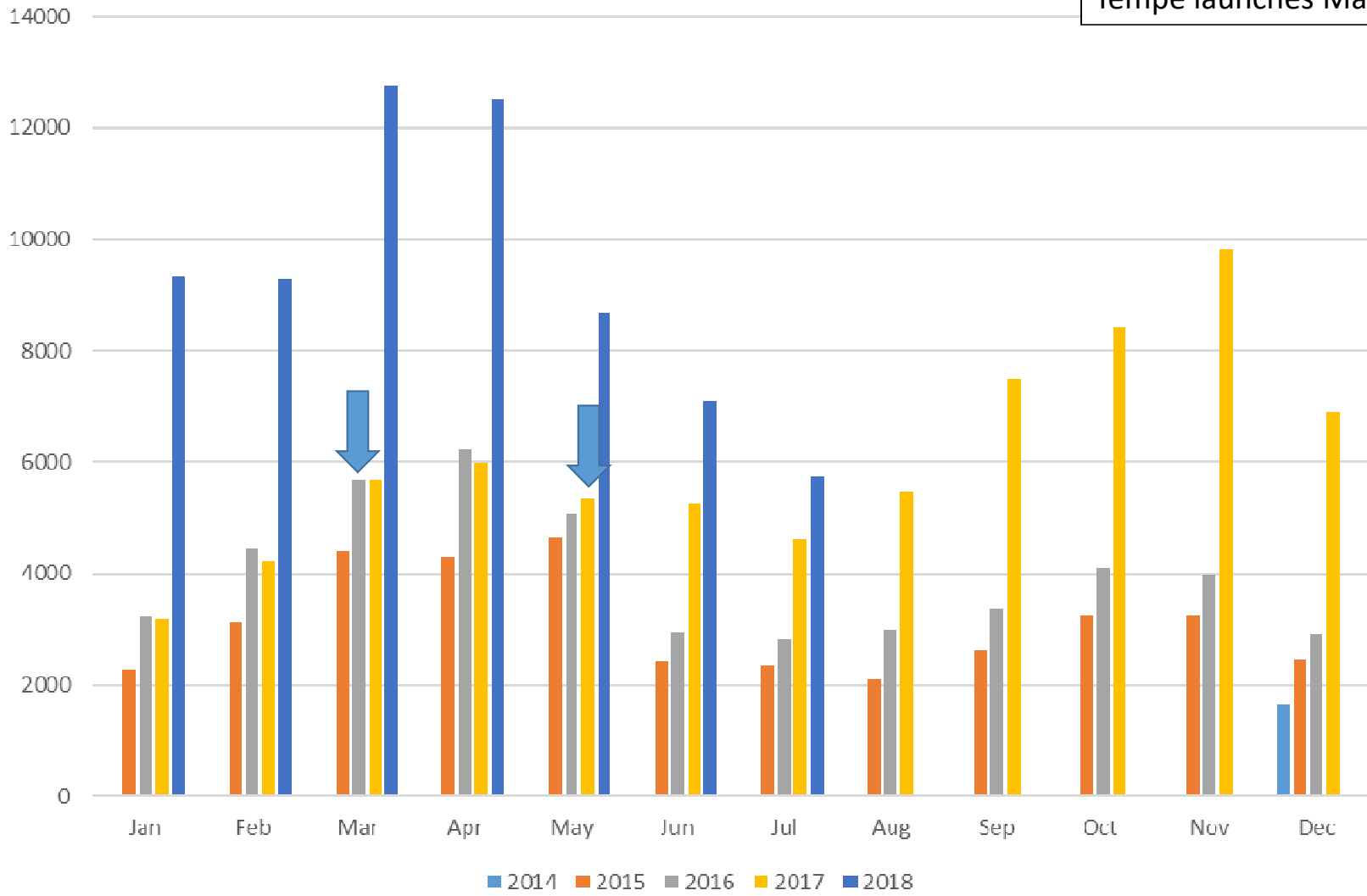


2018 GRiD Trips

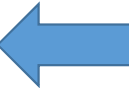


GRID Trips - Monthly Comparison

Mesa launches March 17, 2016
Tempe launches May 15, 2017

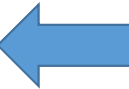


| GRiD TRIPS | | | | | | | | | | | | | Annual | |
|------------|------|------|-------|-------|------|------|------|------|------|------|------|------|--------|---------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | TOTAL | TO DATE |
| 2014 | | | | | | | | | | | | 1640 | 1,640 | |
| 2015 | 2259 | 3125 | 4384 | 4288 | 4644 | 2440 | 2364 | 2101 | 2623 | 3256 | 3260 | 2468 | 37,212 | 38,852 |
| 2016 | 3220 | 4429 | 5693 | 6230 | 5099 | 2951 | 2815 | 2994 | 3372 | 4103 | 4008 | 2912 | 47,826 | 86,678 |
| 2017 | 3191 | 4219 | 5702 | 5984 | 5358 | 5254 | 4615 | 5469 | 7495 | 8412 | 9839 | 6921 | 72,459 | 159,137 |
| 2018 | 9336 | 9295 | 12751 | 12520 | 8683 | 7102 | 5740 | | | | | | 65,427 | 224,564 |



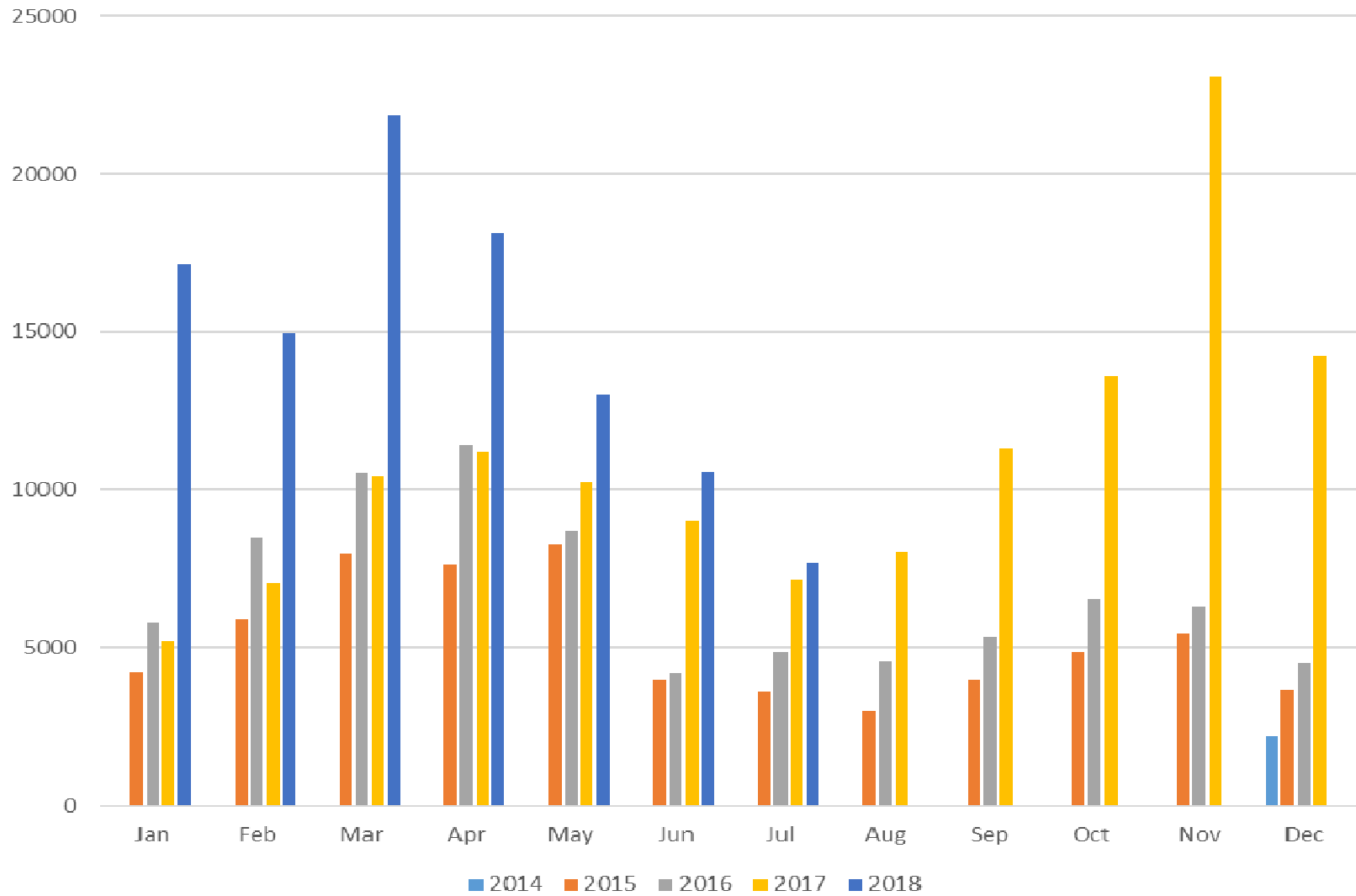
Nearly 250,000 GRiD Bike Share rides in the last 4 years !!

| GRiD TRIP DISTANCES | | | | | | | | | | | | | TOTAL | TO DATE |
|---------------------|----------|----------|----------|----------|----------|---------|---------|---------|----------|----------|----------|----------|---------|---------|
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | |
| 2014 | | | | | | | | | | | | 2191.50 | 2,192 | |
| 2015 | 4217.23 | 5879.11 | 7981.23 | 7630.55 | 8274.53 | 3978.31 | 3622.61 | 3009.74 | 3990.19 | 4868.18 | 5409.77 | 3675.66 | 62,537 | 64,729 |
| 2016 | 5753.80 | 8450.49 | 10500.09 | 11421.92 | 8687.65 | 4156.88 | 4869.09 | 4535.24 | 5362.04 | 6544.37 | 6301.53 | 4512.32 | 81,095 | 145,824 |
| 2017 | 5200.42 | 7061.08 | 10426.17 | 11181.27 | 10242.23 | 9015.54 | 7117.43 | 8038.11 | 11320.36 | 13582.62 | 23088.15 | 14215.33 | 130,489 | 276,313 |
| 2018 | 17142.61 | 14951.04 | 21868.45 | 18144.22 | 13007.59 | 10546 | 7686.78 | | | | | | 103,347 | 379,659 |

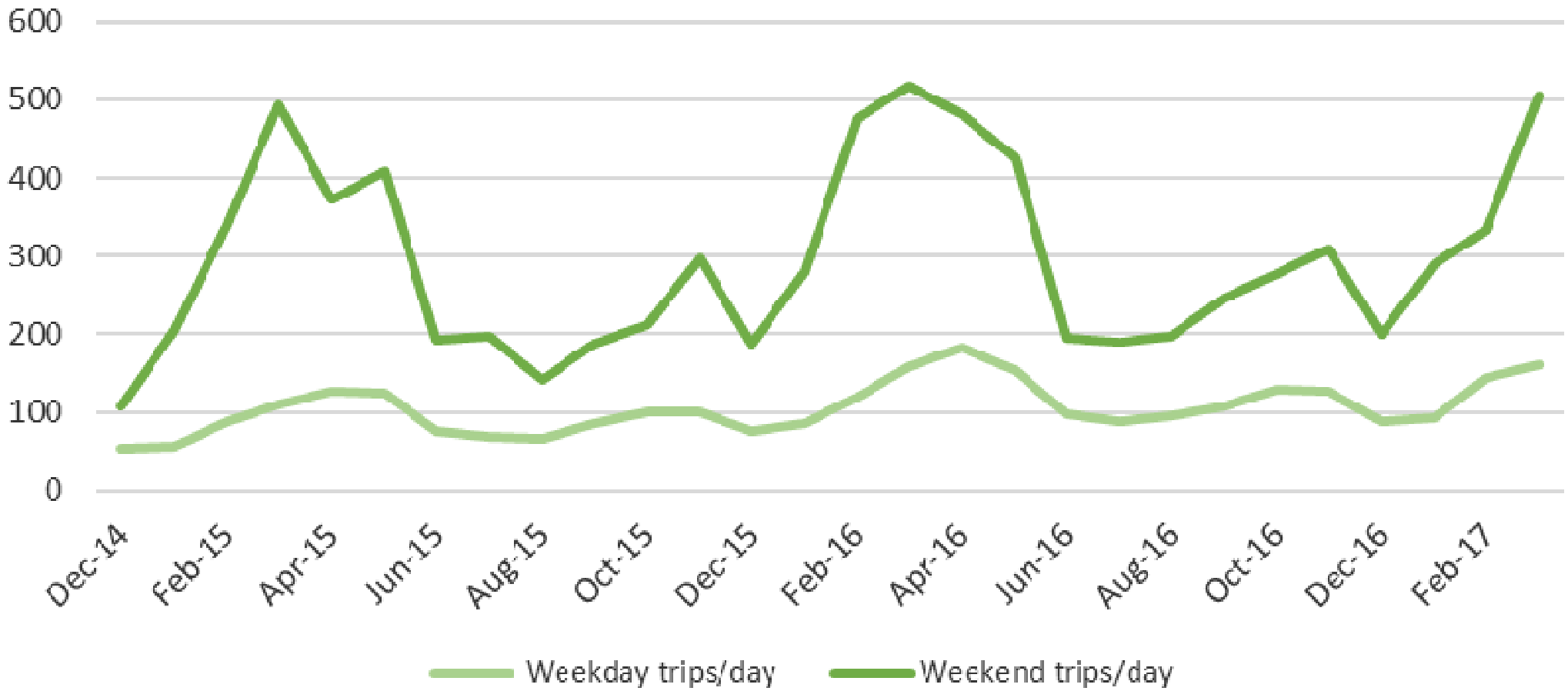


380,000 miles ridden = 335,000 lbs carbon not put into air!!

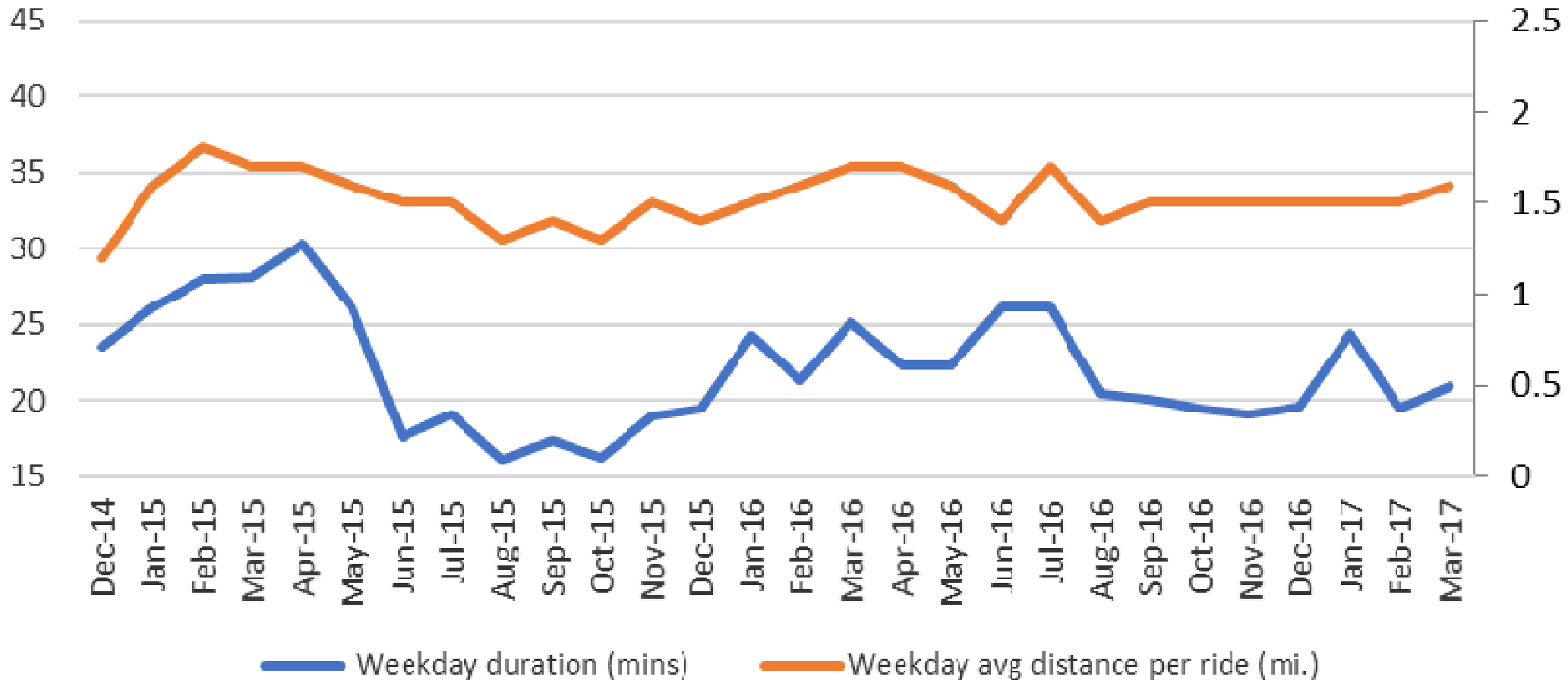
GRiD Trip Distances Comparison



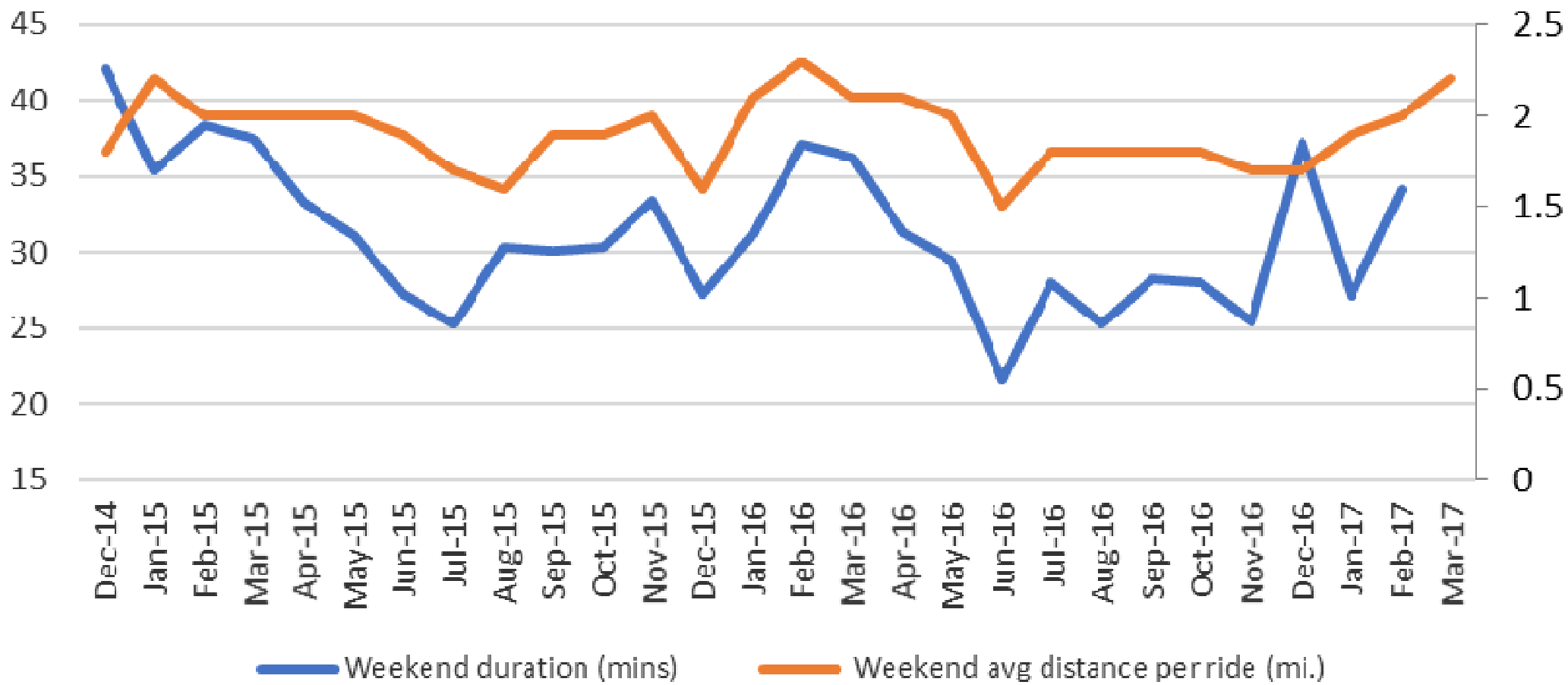
GR:D Weekday vs. Weekend Trips



GR:D TRIPS WEEKDAY



GR:D TRIPS WEEKEND



Dockless and electric assist bikes, electric scooters

Street Transportation is actively working on dockless bikeshare
 on July, 11 2018, NACTO released **“Guidelines for the Regulation and Management of Shared Active Transportation”**

NACTO Policy 2018

Guidelines for the Regulation and Management of Shared Active Transportation

Version 1: July 2018



In this guide:

| | |
|--|-----------|
| Introduction | 2 |
| Shared Active Transportation | 2 |
| The Public Authority | 4 |
| Managing Shared Active Transportation | 6 |
| Policy areas where all cities should be in alignment | 6 |
| Oversight & Authority | 7 |
| Data Standards | 8 |
| Small Vehicle Standards for the Shared-Use Context | 9 |
| Policy areas where issues should be evaluated at a local level | 10 |
| Small Vehicle Parking | 11 |
| Community Engagement and Equity Programs | 19 |
| State of Practice | 21 |
| Fleet Size and Service Area | 21 |
| Small Vehicle Distribution | 27 |
| Fees and Pricing | 32 |
| Equity Programming | 36 |
| Permit Overview | 40 |

Contextual Policy Areas

Street Corrals

| | |
|--|---|
| <p>Pros</p> <ul style="list-style-type: none"> • Relatively inexpensive and quick to install with in-house crews, can put many throughout a city or district. • Easy to understand as Shared Active Transportation parking and can serve as additional parking for personal bikes as well. • Offers predictability. Multiple companies can and should share the same racks. • Ensures that Shared Active Transportation vehicles do not impede pedestrian clear-path or sidewalk. • Addresses “clutter” issue. | <p>Cons</p> <ul style="list-style-type: none"> • Typically takes parking (when placed in the street). |
|--|---|

Other considerations

- Cities should not repurpose existing bike corrals (and racks) for Shared Active Transportation as that significantly limits bike parking availability for people using their own personal bikes.
- Cities will have to allocate staff time to identify locations and conduct necessary outreach with communities.
- Cities should consider rack costs when determining permit or license fees.
- Companies will need to guarantee maintenance or enter into a maintenance agreement with other private entity (typical issues include trash and snow removal). Cities using Street Corrals should ensure that maintenance responsibilities are spelled out in permits and licenses.
- If requiring that small vehicles only be left in corrals and/or other designated areas, follow [NACTO station density guidelines](#)



DOCKLESS BICYCLE SHARING PERMIT

APPLICATION, PROCEDURES AND REQUIREMENTS



City of Phoenix

DRAFT

2018

DRAFT

**BIKE SHARING PERMIT
CITY OF PHOENIX, ARIZONA BIKE SHARING PERMIT NO. BSP-XX**

CITY OF PHOENIX CLERK FILE NO. _____

Pursuant to Phoenix City Code Section 31-80 Section 36-111 and 36-114; 36-111.1 and, 36-111.2, and 36-111.3 et seq., as amended, the City of Phoenix Street Transportation Department, as authorized by the City Council, hereby issues a Bike Share permit to Bike Share Vendor (herein called Permittee) for the use and maintenance of a Name of Agreement within the City of Phoenix public right-of-way. The Name of Agreement within the City of Phoenix public right-of-way (herein called "Agreement") as authorized by this permit is shown on the attached Exhibit "A".

I. ADJOINING REAL PROPERTY:

The Agreement adjoins real property described as follows:

<< See Boundary Limit Example >>

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

II. GENERAL CONDITIONS:

- 2.1 Prior Approval of Agreement. The Agreement allowed by this Bike Share permit is as shown in the exhibits attached. Any modifications or additions to the Agreement within the City of Phoenix right-of-way must be approved by the City of Phoenix. All construction work by Permittee within the right-of-way requires a construction permit issued by the City of Phoenix.
- 2.2 City Retains Full Rights. This Bike Share permit is not a construction permit. This permit is limited to the use and maintenance of the Agreement. The City of Phoenix retains full rights to the public right-of-way.
- 2.3 Insurance. Permittee shall procure and maintain for the duration of this Bike Share permit insurance against claims for injuries to persons or damages to property which may arise from or in connection with this Bike Share permit by the Permittee, its agents, representatives, employees or contractors. The insurance requirements herein are minimum requirements for this permit and in no way limit the indemnity covenants contained in this permit. The City of Phoenix in no way warrants that the minimum limits contained herein are sufficient to protect the Permittee from liabilities that might arise out of this Bike Share permit for the

BSP-XX

Page { PAGE } of
{ NUMPAGES }

Bike share issues:

- 1) Infrastructure coverage – lack of connected bike lanes and canals
- 2) Coverage – lack of which provides opportunity for dockless bikeshare across Phoenix
- 3) Equity – lack of knowledge on how to attract transit dependent riders, zero or single car households
- 4) Latent Demand – Travel Reduction Program at Maricopa County shows 76,000 people want to bike to work and would do so if there was (A) more bicycle infrastructure and (B) safer bicycle infrastructure

Electric Bike share and scooters:

- 1) Scooters: not allowed by Phoenix City Code
- 2) Electric Bike share – not clear if any electric bike share companies will apply for upcoming permits
 - JUMP – by Social Bicycle – (GRiD bikes)
 - Lime – already has pedal bike in metro area
 - Zyp – deployed in Birmingham in 2016
 - Spin – unsure of their interest in Phoenix

Discussion of bike share issues and system on a Valley-wide basis

Except for infrastructure, the conditions present in Phoenix are generally present in Tempe, Mesa and Scottsdale

- 1) Coverage – lack of which provides opportunity for dockless bikeshare across Phoenix
- 2) Equity – lack of knowledge on how to attract transit dependent riders, zero or single car households
- 3) Latent Demand – Travel Reduction Program at Maricopa County shows 76,000 people want to bike to work and would do so if there was (A) more bicycle infrastructure and (B) safer bicycle infrastructure

Benefits and public policy issues:

- 1) A sustainable transportation option that improves health and wellness
- 2) Less congestion, less wear on asphalt, fewer parking spaces and fewer parking lots warranted
- 3) Bicyclists have more money to spend on fun things instead of gas, car insurance, payments, maintenance
- 4) Public policy needs to invest in bicycling: more bike racks, more bike lanes, more elementary school education
- 5) Public policy needs to create a culture of Safety over Speed

Discussion of Phoenix bike share as it pertains to other cities and dockless systems (including scooters, et cetera)

Phoenix Bike share (GRiD) has helped lead the region forward

Dockless systems pose some disruption to this progress

Ofo is leaving the market,
Lime Bikes are abandoned and recycled in Glendale with much media scrutiny.

Dockless bikes are not incentivized for good behavior, bikes are parked improperly and lead to public acrimony

Dockless bikes have less security features than GRiD bikes

Scooters may be popular but Phoenix City Code will need to be changed for their use in the city

Electric bicycles may provide additional mobility to those who need to travel farther and with less effort

An update is needed to the City of Phoenix 2014 Bicycle Master Plan

Analysis is needed on how 1080 miles of bike lanes will be achieved... currently feels like guess work.

How does new development and infill development add bike lanes --- Planning & Development Dept

How does job density / latent employee demand add bike lanes ---- Community & Economic Development Dept

How does transit improvements such as light rail and bus rapid transit add bike lanes --- Public Transit Dept

Despite the current difficulties, Phoenix has made tremendous advances over the last 7 years.

Bronze designation by League of American Bicyclists 2014

Next steps: Silver, Gold, Platinum, Diamond



PHOENIX, AZ

TOTAL POPULATION
1,513,357

TOTAL AREA (sq. miles)
511.6

POPULATION DENSITY
2,958.0

OF LOCAL BICYCLE FRIENDLY BUSINESSES 1

OF LOCAL BICYCLE FRIENDLY UNIVERSITIES 0

10 BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

| | Average Silver | Phoenix |
|---|----------------|-----------|
| Arterial Streets with Bike Lanes | 45% | 25% |
| Total Bicycle Network Mileage to Total Road Network Mileage | 30% | 9% |
| Public Education Outreach | GOOD | GOOD |
| % of Schools Offering Bicycling Education | 43% | 10% |
| Bike Month and Bike to Work Events | GOOD | EXCELLENT |
| Active Bicycle Advocacy Group | YES | YES |
| Active Bicycle Advisory Committee | YES | VERY |
| Bicycle-Friendly Laws & Ordinances | SOME | GOOD |
| Bike Plan is Current and is Being Implemented | YES | YES |
| Bike Program Staff to Population | PER 70K | 79324 |

CATEGORY SCORES

| | |
|---|--------|
| ENGINEERING <i>Bicycle network and connectivity</i> | 4 / 10 |
| EDUCATION <i>Motorist awareness and bicycling skills</i> | 2 / 10 |
| ENCOURAGEMENT <i>Mainstreaming bicycling culture</i> | 4 / 10 |
| ENFORCEMENT <i>Promoting safety and protecting bicyclists' rights</i> | 4 / 10 |
| EVALUATION & PLANNING <i>Setting targets and having a plan</i> | 3 / 10 |

KEY OUTCOMES

| | Average Silver | Phoenix |
|---|----------------|---------|
| RIDERSHIP <i>Percentage of daily bicyclists</i> | 3.5% | 0.73% |
| SAFETY MEASURES CRASHES <i>Crashes per 10k daily bicyclists</i> | 180 | 445.2 |
| SAFETY MEASURES FATALITIES <i>Fatalities per 10k daily bicyclists</i> | 1.4 | 7.6 |



KEY STEPS TO SILVER

- » Increase the amount of high quality bicycle parking throughout the community.
- » Continue to expand the on street bike network and to increase network connectivity. On roads with posted speed limits of more than 35 mph, it is recommended to provide protected bicycle infrastructure. Use road diets to calm traffic speeds and create space for appropriate bicycle infrastructure where needed.
- » Expand the Safe Routes to School program.
- » Continue to expand your public education campaign promoting the share the road message.
- » Offer targeted bicycling skills training opportunities for women and minorities

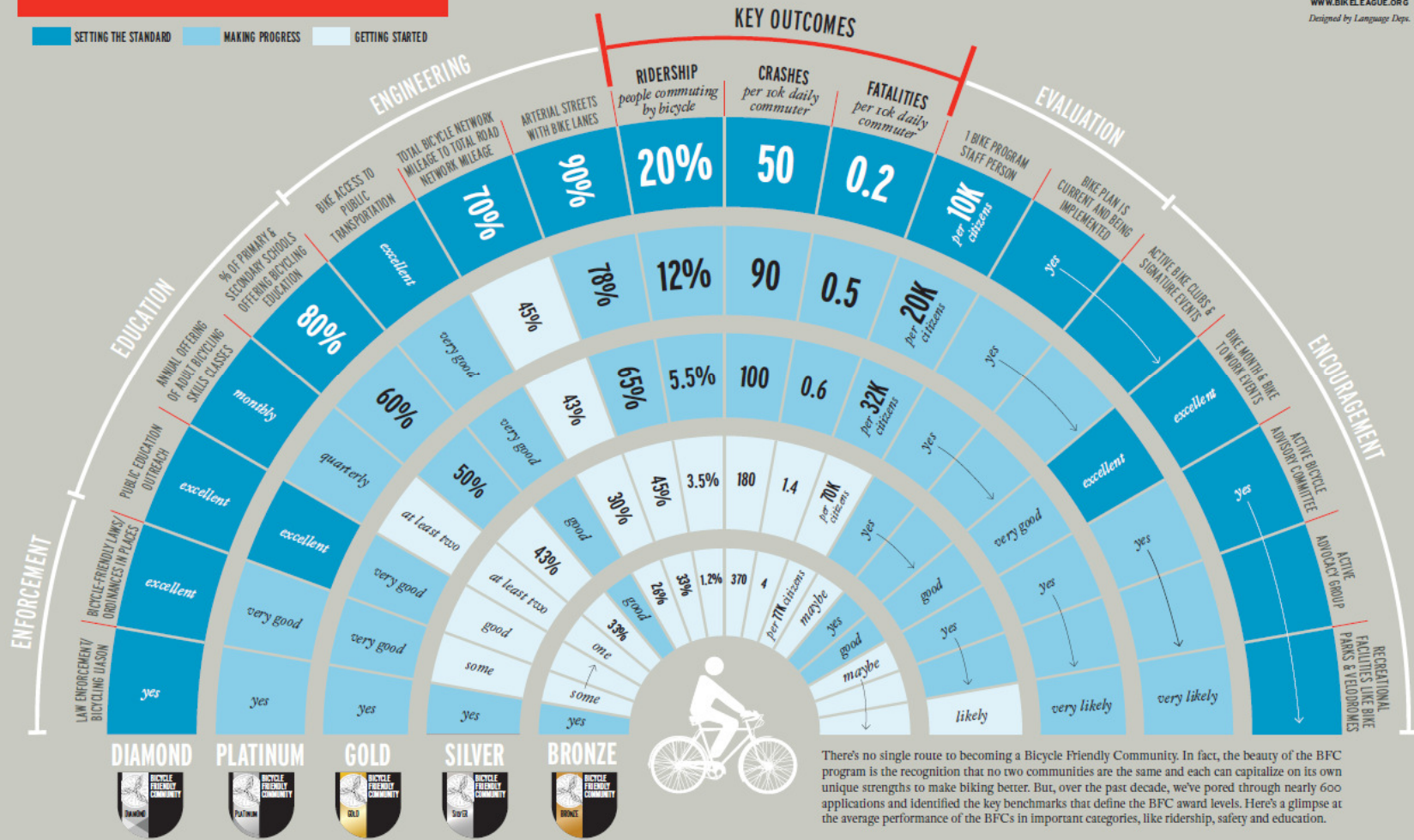
- » Promote cycling throughout the year by offering or supporting more family-oriented community or social rides, and bicycle-themed festivals, parades or shows.
- » Implement and rapidly expand the bike sharing system
- » Ensure that police officers are initially and repeatedly educated on traffic law as it applies to bicyclists and motorists.
- » Dedicate funding for the implementation of the bike plan.
- » Expand efforts to evaluate bicycle crash statistics and produce a specific plan to reduce the number of crashes in the community.

LEARN MORE » WWW.BIKELEAGUE.ORG/COMMUNITIES
SUPPORTED BY

THE BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

produced by
THE LEAGUE
 OF AMERICAN BICYCLISTS
 WWW.BIKELIENUE.ORG
 Designed by Language Dept.

SETTING THE STANDARD MAKING PROGRESS GETTING STARTED



There's no single route to becoming a Bicycle Friendly Community. In fact, the beauty of the BFC program is the recognition that no two communities are the same and each can capitalize on its own unique strengths to make biking better. But, over the past decade, we've pored through nearly 600 applications and identified the key benchmarks that define the BFC award levels. Here's a glimpse at the average performance of the BFCs in important categories, like ridership, safety and education.

Questions?

Joseph.Perez@phoenix.gov

bike@phoenix.gov