



REGIONAL TRANSPORTATION COMMISSION
OF WASHOE COUNTY

REGIONAL ROAD IMPACT FEE
TECHNICAL ADVISORY COMMITTEE
MEETING AGENDA

THURSDAY, APRIL 22, 2021
8:30AM-10:00AM

Meeting via teleconference/Zoom only pursuant to NRS 241.023 and Emergency Directive 006.

The meeting will be streamed live via the RTC YouTube channel and can be watched by following this link:
bit.ly/RTCWashoeYouTube

I. Pursuant to Section 1 of Governor Steve Sisolak's Declaration of Emergency Directive 006 ("Directive 006"), the requirement contained in NRS 241.023(1)(b) that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate has been suspended. Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. Pursuant to Section 5 of Directive 006, the requirement contained in NRS 241.020(3)(c) that physical locations be available for the public to receive supporting material for public meetings has been suspended.

II. Members of the public may provide public comment by one of the following: (1) submitting comments via online Public Comment Form (<https://www.rtcwashoe.com/about/contact/contact-form/>); (2) emailing comments to: rtcpubliccomments@rtcwashoe.com; or (3) leaving a voicemail at (775) 335-0018. **Comments received prior to 4:00 p.m. on April 21, 2021, will be entered into the record.**

III. The Commission may combine two or more agenda items for consideration and/or may remove an item from the agenda or delay discussion relating to an item on the agenda at any time.

IV. Requests for supporting documents and all other requests should be directed to RTC Engineering & Construction at (775) 348-0171. The supporting materials for the meeting will be available at www.rtcwashoe.com. In addition, a member of the public may request supporting materials electronically from Lee Anne Olivas at the following email address: lolivas@rtcwashoe.com.

V. The RTC appreciates the public's patience and understanding during these difficult and challenging circumstances.

1. CALL TO ORDER

1.1 Roll Call

2. PUBLIC COMMENT

Public input received prior to 4:00pm on Wednesday, April 21, 2021, will be added to the record for this meeting. No live comment will be heard during the meeting. See paragraph II above.

3. APPROVAL OF AGENDA (For Possible Action)

4. CONSENT ITEMS

Minutes

4.1 Approval of the February 25, 2021 Meeting Minutes (For Possible Action)

5. DISCUSSION ITEMS AND PRESENTATIONS

5.1 Acknowledge receipt of a report on the RRIF General Administrative Manual (GAM) updated and the Vehicle Miles Traveled (VMT) rates proposed to be included in the Capital Improvement Plan (CIP) (For Possible Action)

6. MEMBER ANNOUNCEMENTS AND UPDATES

Announcements and updates to include requests for information or topics for future agendas. No discussion will take place on this item.

7. PUBLIC COMMENT

Public input received prior to 4:00pm on April 21, 2021, will be added to the record for this meeting. No live comment will be heard during the meeting. See paragraph II above.

8. ADJOURNMENT (For Possible Action)

Pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. Current posting locations:

RTC website: www.rtcwashoe.com, State website: <https://notice.nv.gov/>

**REGIONAL TRANSPORTATION COMMISSION (RTC)
REGIONAL ROAD IMPACT FEE (RRIF)
TECHNICAL ADVISORY COMMITTEE**

Meeting Minutes

Thursday, February 25, 2021

Members Present:

Alex Velto, City of Reno

Dan Doenges for Amy Cummings, Regional Transportation Commission

Dale Keller for Brian Stewart, Regional Transportation Commission

Jim Rundle, City of Sparks

John Krmptic, Private Sector

Jon Ericson, City of Sparks

Kraig Knudsen, Private Sector

Larry Chesney, Washoe County Planning Commission

Mike Mischel, City of Reno

Mitchell Fink, Washoe County

Randy Walter, Private Sector

Shelley Read, City of Sparks

Members Absent:

Kurt Dietrich, City of Reno Public Works

Ted Erkan, Private Sector

Guests

Angela Fuss

Dwayne Smith

RTC Staff:

Adam Spear

Bill Thomas

Blaine Petersen

Hannah Yue

Jelena Williams

Lee Anne Olivas

Sara Going

Stephanie Haddock

Xuan Wang

Yeni Russo

Item 1: Call to Order

The meeting was called to order at 8:37am. Dale Keller of the RTC Engineering Department welcomed Shelley Read from the Sparks Planning Commission to the committee. Roll call was taken to ensure there was a quorum.

Item 2: Public Comment

There were no public comments received.

Item 3: Approval of Agenda

The agenda was approved as presented.

Item 4: Approval of the January 28, 2021 Meeting Minutes

The January 28, 2021 Meeting Minutes were approved as presented.

Item 5.1: COVID-19 Impacts on Transportation Trends Report

Dale Keller provided a presentation on COVID-19 Transportation Trends. Dale explained that at the last RRIF TAC meeting, there was a comment from Mr. Krmpotic about how RTC has been tracking the COVID-19 transportation trends and what is been observed regionally, statewide, and nationwide. Attachments from NDOT and StreetLight Data listing research on the impacts of this period were presented.

Attachment A “COVID Traffic Impacts” from Nevada Department of Transportation shows traffic volumes in Reno-Sparks area dropped about 34% in the April through June 2020 timeframe

compared to the year prior. Also depicted are statewide level impacts in the different regions in Nevada. As of January 2021, the traffic volumes were still down 13%. A graph for Monthly Average Daily Traffic (MADT) Comparison in I80 Downtown Reno was presented. It provides a comparison of the averages for 2019 vs 2020 and shows the gap of what the monthly average daily traffic would be.

Similarly, Attachment B “COVID Transportation Trends” includes a graph for US Total Vehicle Miles Traveled (VMT) 2020 Year-To-Date and represents StreetLight Data that is a firm that tracks cell phone data across the county. The graph depicts the 7-Day Moving Average and shows the dip that occurred with COVID shutdowns across the country and the rebound that followed.

One of the questions raised is whether the volumes rebounded enough or were we back to normal levels. The PACE OF VMT RECOVERY depicts a graph showing that recovery varies in different parts of the country. The Street Light Data identified a few of the trends and grouped them by different demographic factors, higher income, higher average population density, and higher share of professional services employment. States with a faster recovery trend have lower income levels, lower population density, and fewer professional services jobs. The map shows States in yellow correlating with a quick recovery and States in black correlating with a full recovery. Shown in dark blue are States with a larger drop in VMT and a slower recovery. These are States with higher population density. Nevada is in line with the national average for that year-over-year comparison of July 2020 VMTs.

A question was asked how this reflects regionally and with our Fuel Tax Report. The RTC Finance team provided a comparison report of fuel tax numbers from December 2020. Washoe County gallons of gasoline sold decreased 7.72% compared to December 2019. Statewide gallons of gas sold were down about 13.36% for December compared to 2019. Statewide, the diesel sales were up 9.36% for the month compared to December 2019. Even though the gallons sold were less, fuel indexing has been a savior as the percent change year-to-year (Fiscal Year (FY) 21 vs. FY20) for RTC Fuel Tax collection was only by -0.28 %.

For long-term trends, more data is needed. One national trend observed from ITE and from the traffic report from StreetLight, is that there is less peak congestion, meaning the morning flow is spread across more evenly and the peaked hours are less. NDOT's data; however, does not show this in Washoe County on our major freeways. The bicycling community has shown an overall decrease matching VMT on weekdays; however, on weekends a lot more people were hitting the roads and biking during summer 2020. More data is needed to see what this means for the future, what the rebound rates are, if this has really changed how we move and commute around our region, and understanding what the in-person workers are and their essential roles.

Jon Ericson of the City of Sparks asked in reference to Slides 2 and 3 of the presentation if NDOT had modal splits in regards to drop in passenger vehicles or overall the 13 vehicle types. Sara Going of the RTC Engineering Department responded it is not known if the data presented on NDOT's graph is split by mode. It may be total vehicle miles as counted on the freeway.

Jon Ericson stated that after the last RRIF TAC meeting, he and Jim Rundle of the City of Sparks further discussed John Krmpotic's question regarding the tracking of COVID-19 transportation impacts on different trip generation categories and they feel the reduction in residential trips was expected, but not a significant drop in trips relating to shopping and deliveries. Dan Doenges commented that nationwide trends during COVID show there were reductions in residential traffic and an increase in freight traffic due to people utilizing more delivery type services like Amazon. It is unsure if this trend will continue.

In reference to the Long Term Trends slide, Jon Ericson commented the second bullet states NDOT data is not seeing less peak congestion in Washoe County major freeways, but the I80 Downtown Reno data slide shows trips are down and this appears to be conflicting information. Dale explained that the overall VMT is down and the congestion normally seen in morning and evening commutes still has the same peak curve in Washoe County versus some denser regions. San Francisco is an example where the peak hours are spread across longer periods with lighter congestion. John Krmpotic commented the presented information is great data and agrees with the need for more data for future long-term trends.

A question was asked if there a consensus between NDOT and RTC to continue to monitor the traffic impacts, trends, and review any new data for continued changes. Dan Doenges responded he believes NDOT is continuing to monitor the traffic impacts. They perform annual traffic counts and their data will show if the trends continue. RTC utilizes NDOT's traffic count information for Washoe County. This is something RTC will also be tracking for vehicle traffic and other active modes of transportation. Dale added on the Traffic Engineering side for traffic timing and signalization, the monitoring of different congestion points and peak flows will continue with adjustments made as needed for the current signal timing.

A motion to acknowledge receipt of a report on COVID-19 impacts on transportation trends related to traffic volumes and vehicle miles traveled was approved unanimously.

Item 5.2: Draft 2050 Regional Transportation Plan Project Lists Report

This is a follow up item from the January meeting and there is no formal report or presentation. Dan Doenges of the RTC Planning Department stated that the Draft RTP is out for public comment. The 21-day public comment/participation period began February 25, 2021, and ends March 18, 2021. Tentatively scheduled is a public hearing for plan adoption along with an update to the Regional Transportation Improvement Program (RTIP). Dan noted that the Air Quality Analysis preliminary results indicate we are within the motor vehicle emissions budget threshold set by the EPA, and the proposed projects and VMT forecasted to generate will not cause emissions to cross those thresholds; thereby, still meeting air quality standards.

Dan stated updated Truckee Meadows Regional Planning Agency (TMRPA) forecast data was and incorporated in the Travel Demand Model. The resulting forecast traffic volumes and VMT were then used as inputs into the air quality model.

A motion to acknowledge receipt of a report on the project lists in the draft 2050 Regional Transportation Plan was approved unanimously.

Item 5.3: RRIF General Administrative Manual (GAM) Report

Dale Keller provided a presentation on the 7th Edition RRIF GAM Update. Dale provided a correction to the draft list of projects for North and South benefit districts (see Attachment A “North Capital Improvement Plan” and Attachment B “South Capital Improvement Plan”) that was included in the RRIF Capital Improvement Plan (CIP) from the January 28, 2021 meeting. The lists erroneously omitted the privately constructed roads. He presented the list of the privately constructed roads and the list is reflected in the 2050 RTP.

Jon Ericson asked if the projects on the CIP list are two lane facilities. Dale stated they differ and clarified that the list shows the funding for these projects. Jim Rundle commented that the majority of the development on the list appears to occur in the North Benefit District. Dale concurred and stated for the most part they are new privately funded roadways, and not previously identified existing roadways that may need capacity improvements including the developer share of roadway widening.

Dale Keller discussed the development of RRIF Fees and presented a basic diagram outlining the high-level process steps included in developing the fee. To develop the Impact Fee program, it must first be determined how and where the growth is anticipated to occur and second the capacity projects needed to accommodate the growth. Dale discussed the RRIF Network & Eligibility definitions used in the 6th Edition RRIF GAM. The next steps and schedule include determining editorial changes, updates to the eligibility determinations, and the appeals process. In March or April 2021, the editorial changes will be presented to the committee for input including a presentation of the RRIF TAC fee calculations. In May or June 2021, a final review version listing the changes from the 6th to the 7th Edition of the RRIF GAM and CIP Manuals will be presented to the committee.

John Krmptotic asked the purpose of the review. Dale stated the intent is to clarify and/or to better define eligibility. Currently various definitions are used to determine eligibility for the RRIF Program and/or Offset improvements. There was discussion on the forecast volume of 14,000 annualized average daily trips identified in the 6th Edition CIP. Jon Ericson requested clarification presented at the next meeting.

Jon Ericson noted that a proportional share of the storm drains would also be RRIF eligible. He also asked how the costs for traffic signals would be captured in the CIP when the Spot Improvement projects are removed. Projects listed in the CIP needing new traffic signals would be an incorporated part of the cost, and 100 percent eligible for RRIF funding.

Jon Ericson asked why RTC is looking to update the appeals process. Dale stated the appeals process in the RRIF GAM is in a section that is not suitable for eligibility determination and clarification could be provided. Adam Spear of the RTC Legal Services Department added that in the GAM, there are various parts where it states what is and is not appealable, but the appeals process itself appears to be potentially broader and needs clarification. In addition, clarification on who makes the appeal determinations is needed.

There was a question regarding the CIP list of projects presented (see Attachment A “North Capital Improvement Plan” and Attachment B “South Capital Improvement Plan”) and why the projects shown in red were removed from the list. Dale stated some of the projects shown in red were removed because they are no longer considered in the 2050 RTP.

A motion to acknowledge receipt of a report on the RRIF General Administrative Manual and projects proposed to be included in the Capital Improvement Plan was approved unanimously.

Item 6: Member Items

Jon Ericson stated the Stonebrook West waiver agreements will be forwarded to the RTC soon.

Item 7: Public Comment

There were no public comments received.

Item 8: Adjournment

There being no further business, the meeting adjourned at 9:27am.

Respectfully Submitted,

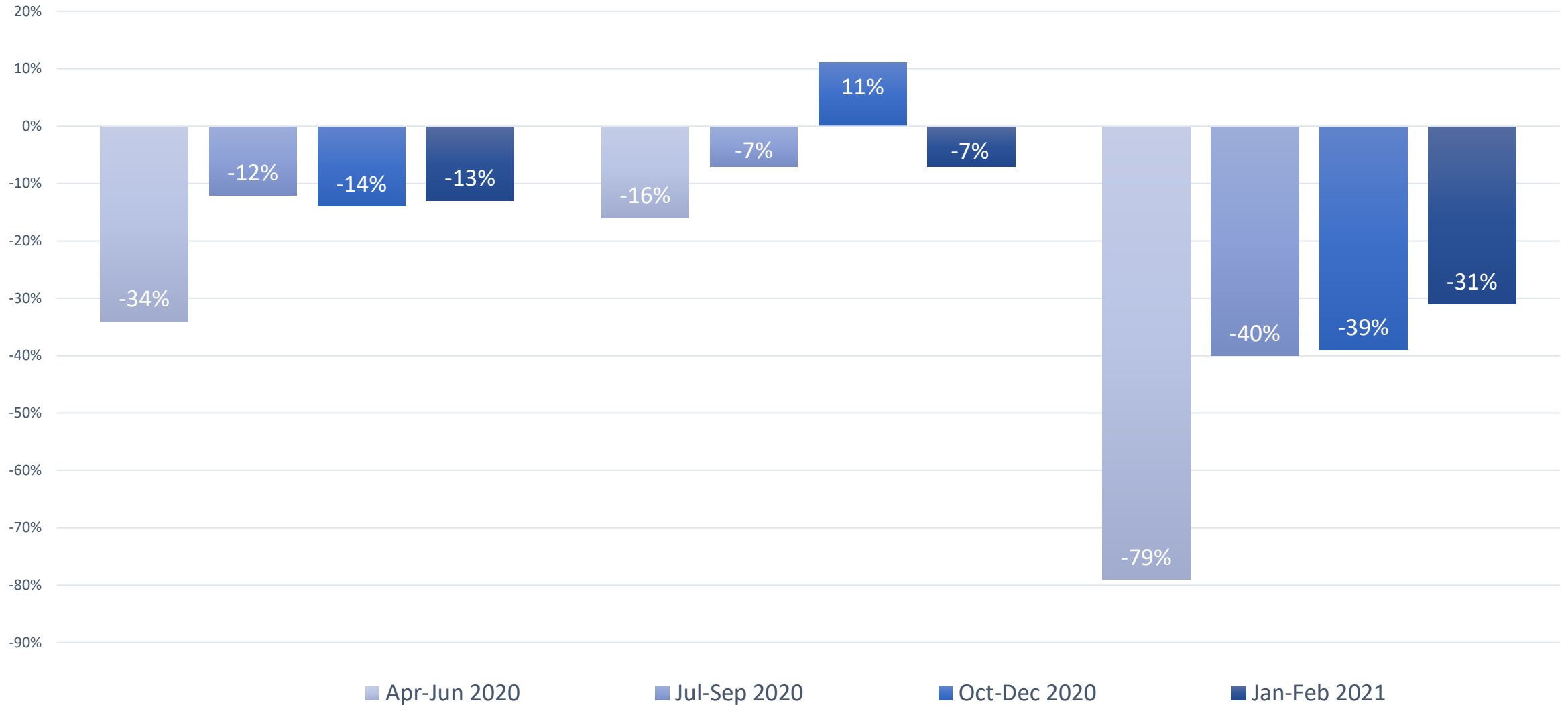
Yeni Russo

COVID TRAFFIC IMPACTS

Reno

Elko

Las Vegas



E-BOOK

COVID TRANSPORTATION TRENDS

What You Need to Know
About the “New Normal”



STREETLIGHT

The New Normal?

Remember the long-ago days of March, when hopes were high that the pandemic would last only a few months? As 2020 draws to a close, indeed some transportation indicators like vehicle miles traveled (VMT) are trending back to pre-COVID levels. But, spoiler alert: That's only a superficial takeaway.

Looking closer, we are seeing a shift to an entire "new normal" for transportation. Analyzing travel metrics at a granular level with rich data overlays reveals deeper upheavals that transportation professionals should be monitoring closely through the end of 2020 and beyond. Because it's all going to keep changing.

This research report takes advantage of StreetLight Data's transportation metrics to provide data-driven insights on vehicular and bicycle travel so far in 2020. Our analysis sheds light on emerging trends that will continue to influence agencies' efforts to manage transportation amid sweeping behavioral changes in our communities.

Table of Contents

I. VEHICLE TRAVEL STILL VOLATILE	4
II. THE DEATH OF PEAK AM CONGESTION	8
III. SPOTLIGHT ON ESSENTIAL EMPLOYEES	11
IV. THE RENAISSANCE OF BICYCLING	16
V. THE NEW METRICS THAT MATTER	19



COVID TRENDS UPDATE WEBINAR

Get the latest, because the world will change even as we go to print with this e-book.

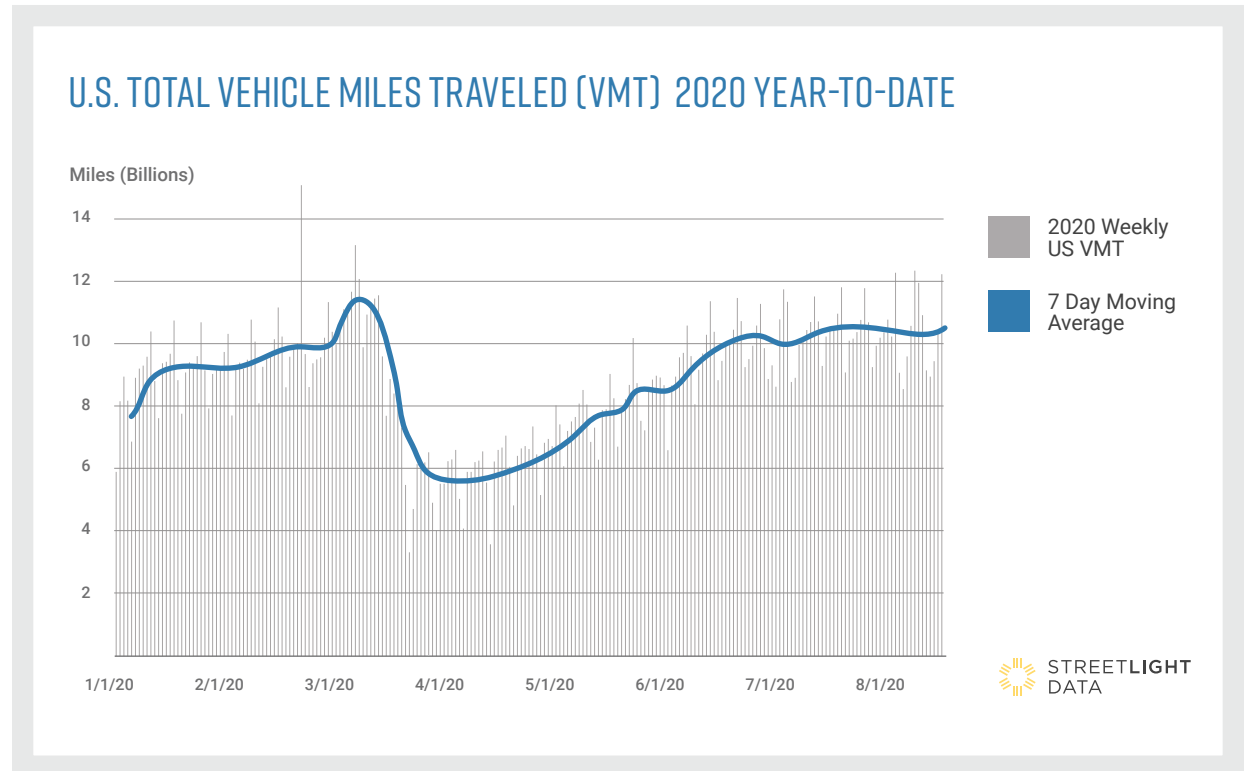
Register now at streetlightdata.com/COVID-ebook-webinar

I. VEHICLE TRAVEL STILL VOLATILE

Over the last few months, COVID-induced stay-at-home orders have changed how we shop, how we learn, how we get health care — and have introduced a period of unprecedented volatility for transportation planning and use.

In any given year, U.S. VMT rises or falls only about 1 to 2%. Even during the “great recession” of 2008 (our most recent major dip), VMT declined only 3.5%. By April 2020, however, VMT dropped an unprecedented 40.2% compared to 2019.

At StreetLight, we’ve been watching VMT closely, using our daily [VMT Monitor](#). After bottoming on Easter Sunday of this year, VMT has been steadily climbing, with a post-June plateau suggesting that vehicle travel is stabilizing. The trendline may look like a return to normal, but it’s not.



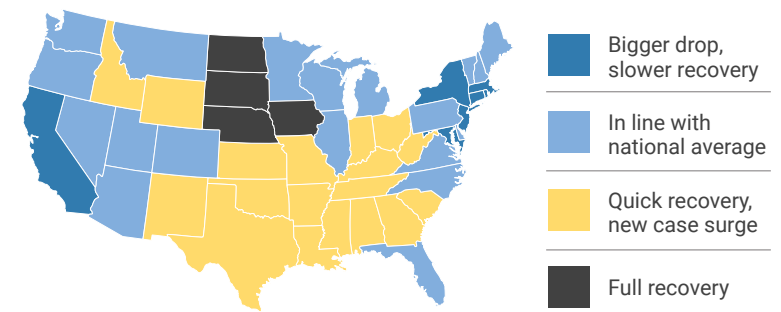
Since bottoming out in April, total VMT has recovered to near pre-COVID levels, but still remains below levels of July 2019.

Our year-over-year comparison of July 2020 VMT reveals it is **still 16.3% lower** than in July 2019. While some transportation experts predicted a VMT “rebound” making up the difference for the year as a whole, we don’t see indications of that level of recovery.

We do see that VMT correlates with several pandemic-related factors (discussed below), and these factors vary by region. This deeper insight can help planners monitor, and even predict, VMT fluctuations in response to pandemic policies and disease progression.

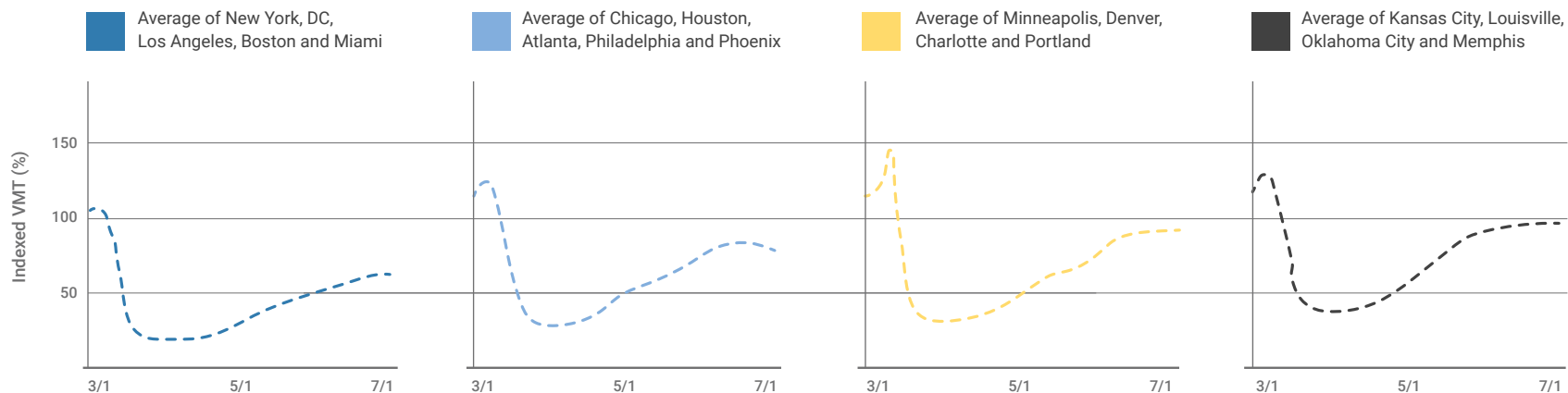
Boston Consulting Group’s [analysis of StreetLight’s VMT data](#) found that specific demographics correlate strongly with VMT fluctuations. Analyzing these correlations divides the U.S. into four key “archetypes,” each associated with a particular VMT trendline.

PAGE OF VMT RECOVERY



STREETLIGHT DATA

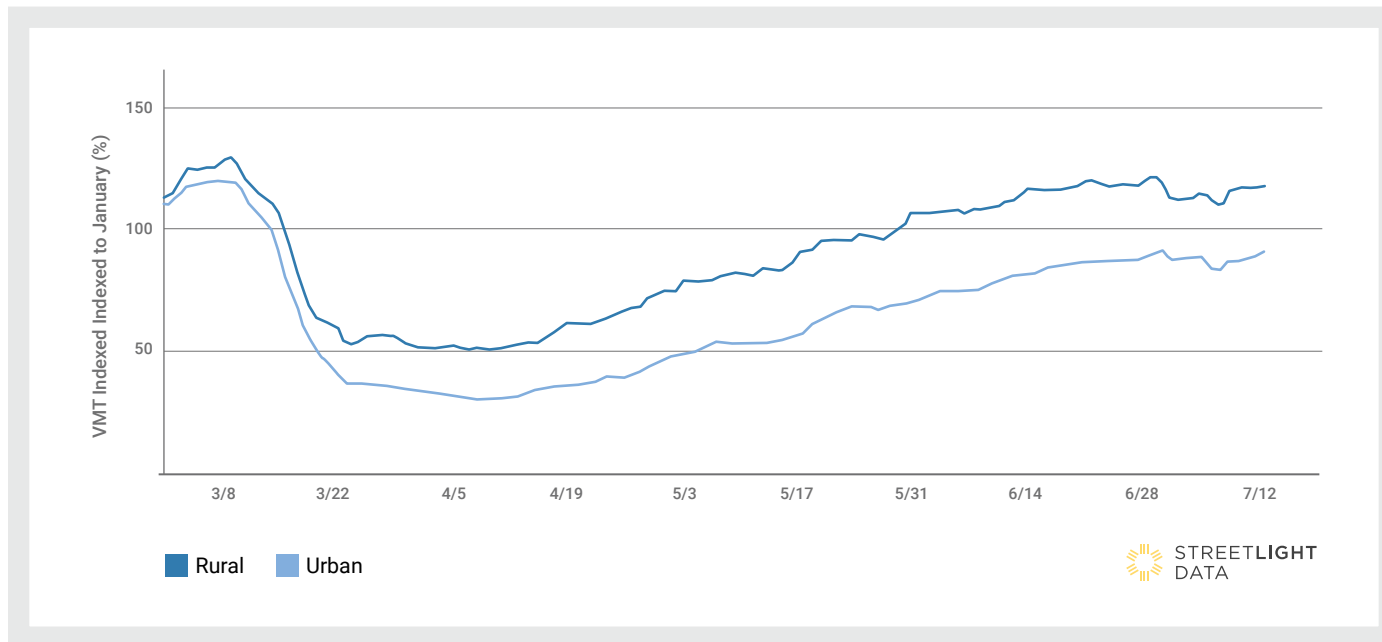
BCG



States can be grouped into four pattern clusters based on how quickly VMT declined and rebounded. Analyzing individual cities within each of the four clusters shows the timeline of VMT recovery.

VMT trends vary significantly among the four cohorts BCG discovered. For example, Northeast states fall into a group with a larger drop in VMT and a slower recovery. This trend correlates with demographic factors including higher income, higher average population density, and higher share of professional services employment. States with a faster recovery trend have lower income levels, less population density, and fewer professional services jobs.

In addition, BCG's analysis shows that rural areas sustained higher VMT levels than urban areas during stay-home orders and work-from-home policies. This trend has held true for the entirety of the pandemic period.



Throughout the pandemic, rural areas across the U.S. have had consistently higher VMT than urban areas.

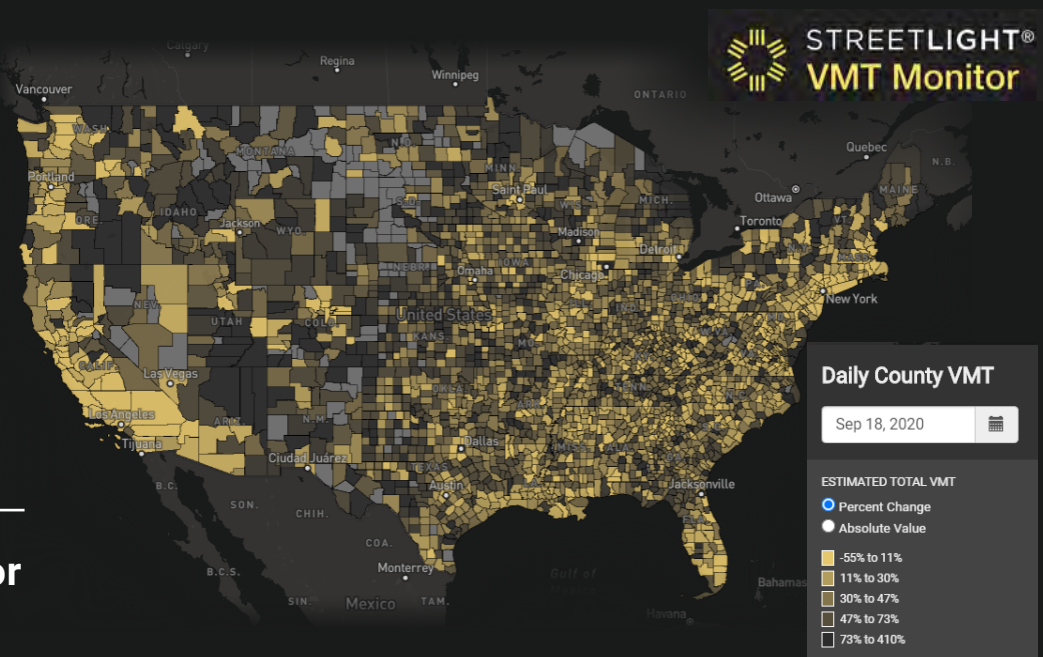
If the U.S. sees sequential waves of COVID outbreaks, or if government officials (local or national) enforce preventive lock-down measures, regional nuances in correlative factors will directly affect VMT. We encourage readers to monitor VMT at the county level to keep up to date on potential impact.

Get latest VMT data for your county

View daily metrics for 3,100+ counties to monitor the return of vehicle activity or analyze the impact of VMT on gas tax or emissions.



streetlightdata.com/VMT-monitor



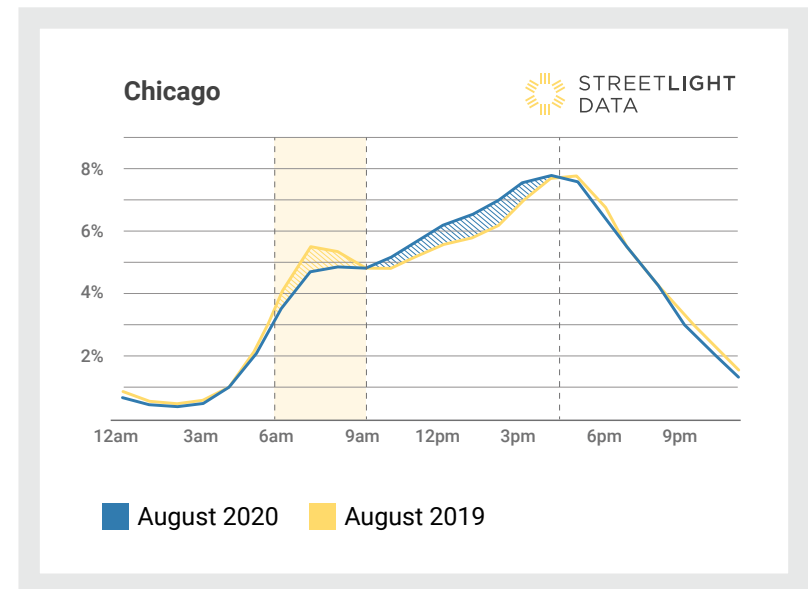
II. THE DEATH OF PEAK AM CONGESTION

The PricewaterhouseCoopers U.S. Remote Work Survey* reveals that 77% of office employees are currently working from home at least one day a week – and the survey projects that 55% will do so post-COVID.

Since many employers enacted work-from-home policies in spring, peak commuting travel in the U.S. has undergone tremendous change. If you're seeing fewer traffic jams on your local highways in the morning, you're not alone.

Our analysis of hourly travel in five major U.S. metro areas reveals that there is no such thing as “peak AM” anymore. Instead of the typical sharp increase in morning travel, followed by a drop and then an afternoon peak, our August 2020 VMT analysis shows weekday traffic building gradually toward a more sustained afternoon high. Millions of commuters no longer head to a distant office in the morning, and they have new flexibility for mid-day grocery shopping and other in-person errands as more businesses gradually reopen their doors.

DISTRIBUTION OF DAILY VMT BY TIME OF DAY

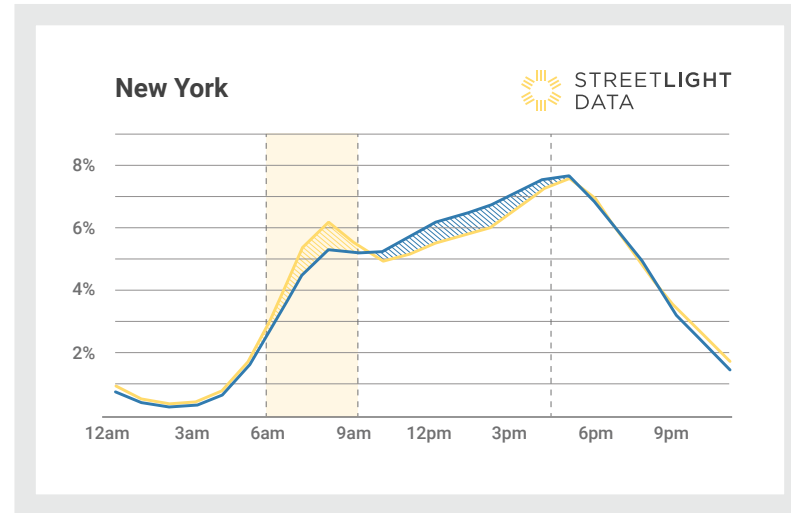
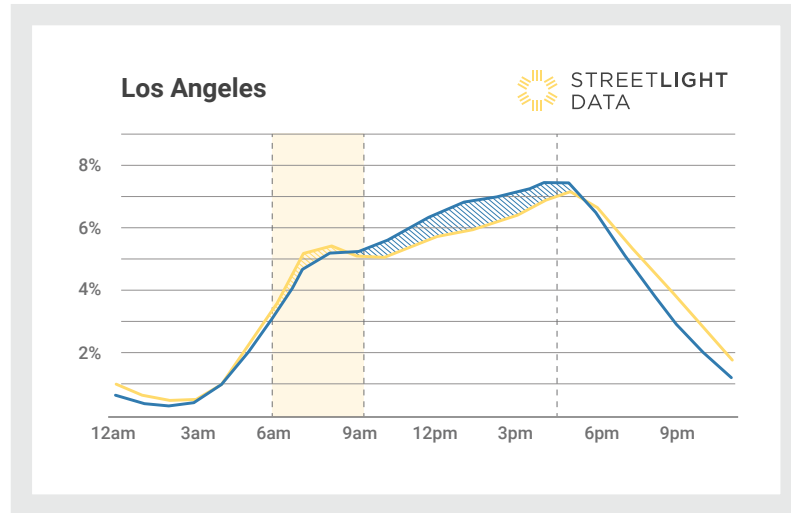


Shaded area indicates a year-over-year drop in peak AM travel, and increase in peak PM travel.

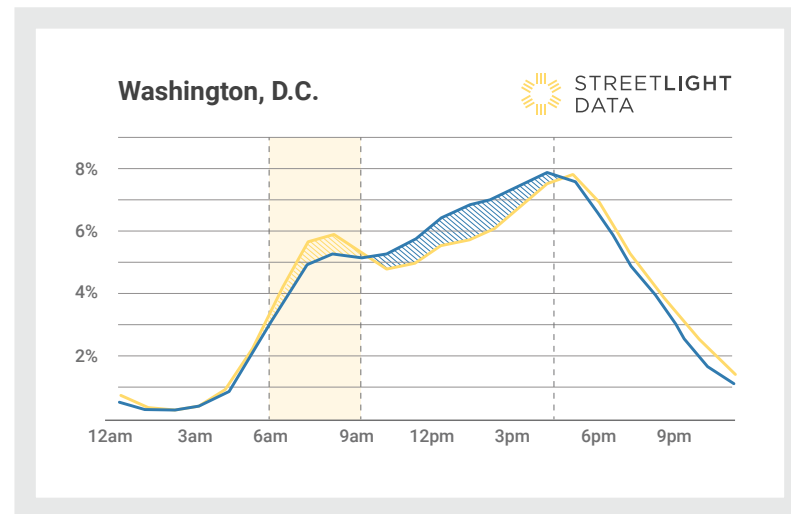
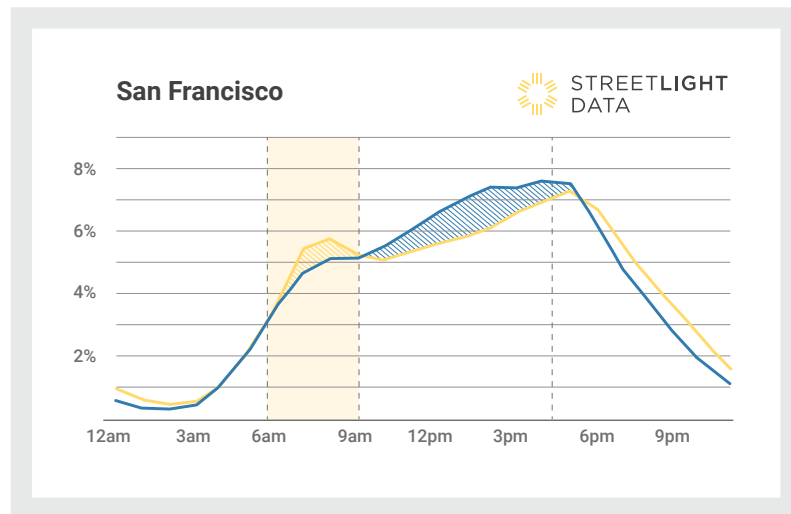
* PWC's June 2020 survey of executives and office workers can be found on [pwc.com](https://www.pwc.com)

Additional U.S. metro areas on the next page >>

DISTRIBUTION OF DAILY VMT BY TIME OF DAY (CONT'D)



■ August 2020
■ August 2019



While major metros still have peak PM commutes, those peaks aren't as pronounced as they used to be. In Washington D.C., for example, we see a slightly earlier peak for PM travel than during the same period in 2019, but the buildup to that point is a steady increase instead of a sudden jump.

In fact, the Los Angeles and San Francisco metros are seeing a “mini rush hour” just after lunch, with two PM peaks in those cities showing longer periods of lighter congestion. That PM congestion is beginning earlier, but ending sooner, with freeways returning to normal loads as much as an hour early vs. 2019.

All five metros we studied have this “peak-spreading” tendency, with more vehicle travel during midday than in 2019. We validated this behavior against permanent counter data from state DOT sources and see similar changes in AM peak-spreading.

We also analyzed where trips originate, finding that Chicago and Washington, D.C. showed an increase in trip starts further away from the traditional downtown/core urban areas, and a decrease in city center trip starts.

This decoupling of VMT and congestion — which will likely persist to some degree after COVID is over — shakes the foundations of many of our models and decision-making tools for transportation infrastructure, investment, funding, mode choice, and more. With uncertain budgets, localities will need to efficiently monitor and prioritize in order to maximize resources.

Analyze resident, worker, and visitor traffic in your region

Dive deeper into local travel patterns of commuters and other vehicle drivers



streetlightdata.com/trip-purpose

III. SPOTLIGHT ON ESSENTIAL EMPLOYEES

Our analysis in Section II showed that COVID-induced VMT decreases were less pronounced in rural areas. We also discovered that this trend was especially true in counties heavy with essential industries. Our granular data also lets us examine the travel habits of essential employees, regardless of their geographic location.

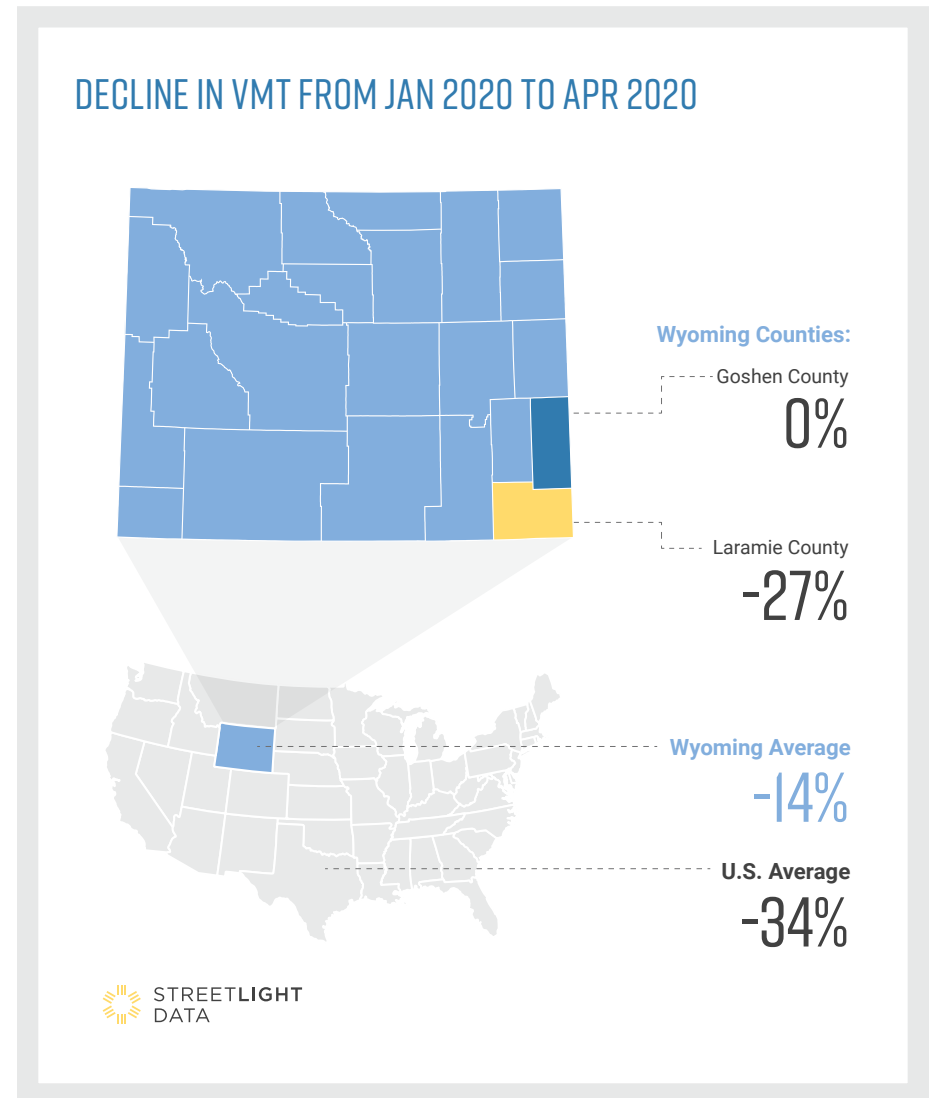
This important traveler must get to work reliably and easily – not only for critical businesses to function during a pandemic, but to support economic growth during an eventual recovery.

The availability of LBS data means that we can go “back in time” to analyze March and April metrics. This reveals insights about mobility during the height of the pandemic.

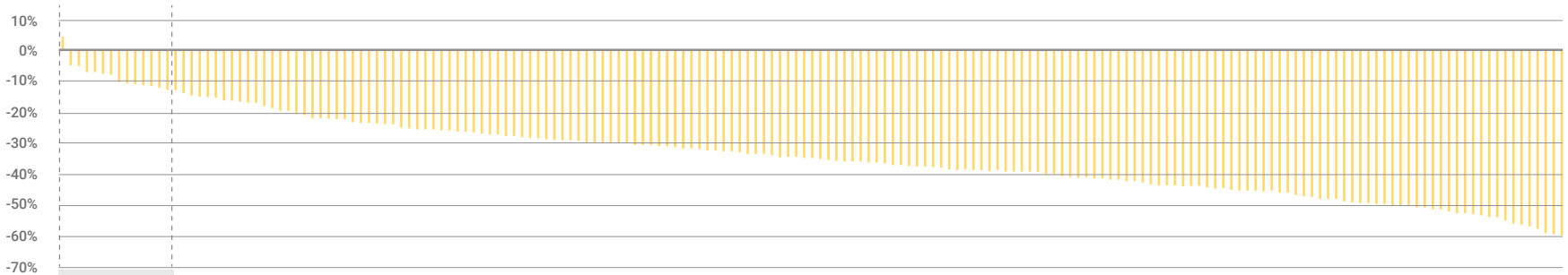
Our county-level VMT Metrics highlight that areas of the U.S. supporting essential industries showed little VMT decline, even while much of the country was closing up shop and encouraging residents to stay home.

For example, Goshen County, the top ranching county in Wyoming, saw flat VMT in late April. But neighboring Laramie County, home to the state’s capitol, saw VMT drop 27%, closer to the U.S. average decline during this time.

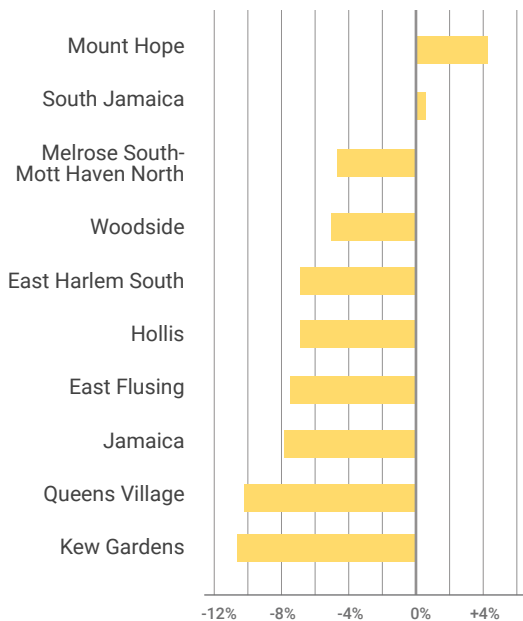
Likewise, Iowa’s Kossuth County, the state’s top producer of corn, soybeans, and other food crops, registered a gain of 6% in VMT in late April, while Park County (home to capital city Des Moines) dropped 35%.



CHANGE IN COMMUTE TRIPS BY NYC NEIGHBORHOOD, APR. 2020 VS. APR. 2019



DETAIL

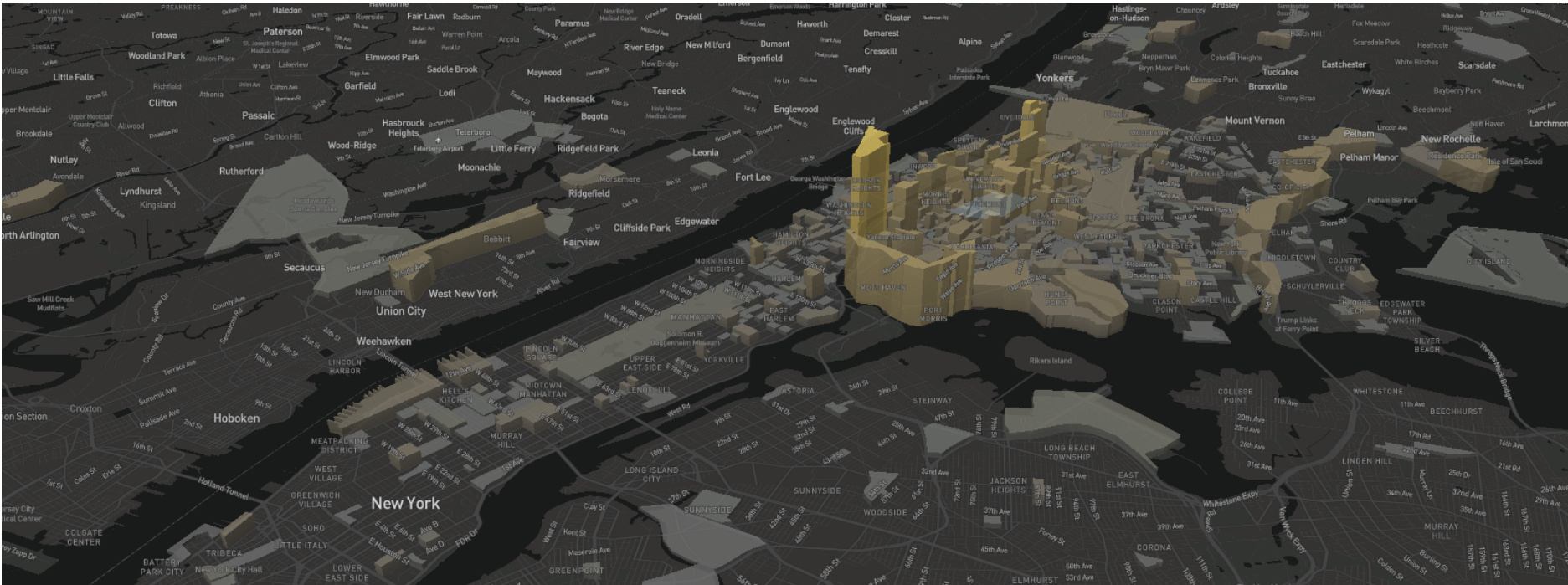


Drilling deeper, we examined VMT down to zip code, and also went “back in time” to see where travel remained high during peak quarantine in different parts of individual cities.

The *New York Times* used our Metrics to study where commuting travel rose and fell in all 188 New York City neighborhoods during April, and ranked them from highest (most travel) to lowest (least travel). Aligning with BCG’s finding that VMT correlates with income levels, this analysis also found that travel dropped more in neighborhoods with higher income levels, populated by office workers and non-essential employees able to work from home.

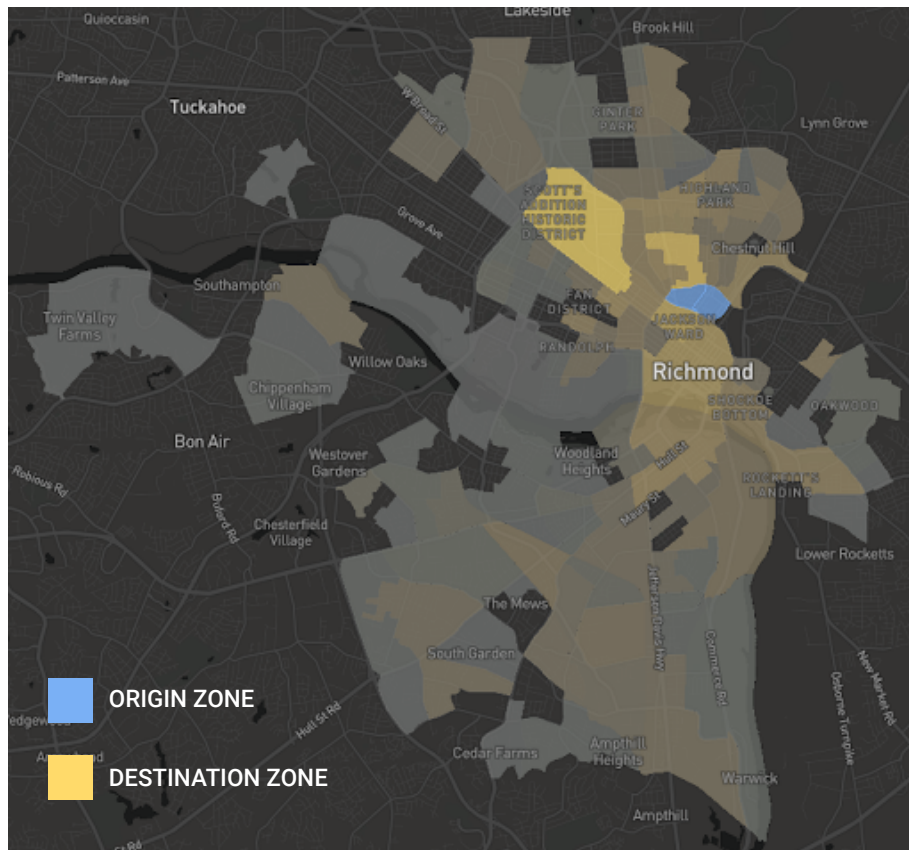
The *New York Times* study identified several Manhattan, Queens and Bronx neighborhoods with VMT declines greater than 40%. The Mount Hope neighborhood of the Bronx stood out because VMT increased markedly during stay-home orders. Further study showed Mount Hope to be home to a high percentage of New York City's essential employees – valuable information for any locality looking to ease commuting for this cohort.

TOP DESTINATION ZONES FOR TRIPS ORIGINATING IN MOUNT HOPE

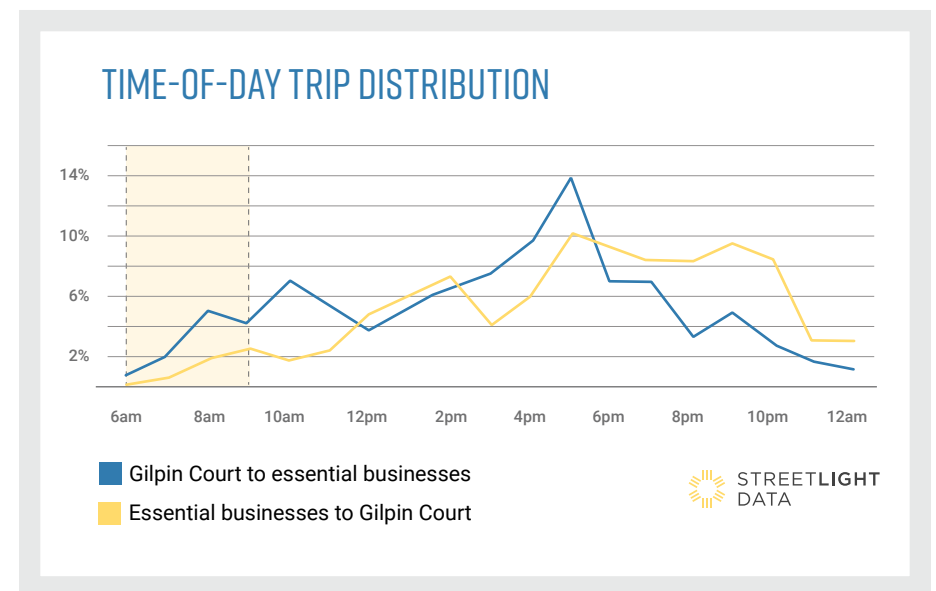


Three dimensional map indicating destination zones for essential employees in Mount Hope, New York. Taller zones indicate higher volume of trips ending in that zone.

In StreetLight's own [analysis of equitable transit access in Richmond, Virginia](#), we focused on the Gilpin Court neighborhood because of its high correlation with demographic factors associated with essential employees. In addition, Census data for Gilpin Court indicates a high percentage of households without access to vehicles.



Highly traveled routes between essential employees living in Gilpin Court (blue) and nearby businesses (yellow).



We then zeroed in on travel patterns between Gilpin Court and nearby essential services, including a hardware store and a large grocery store. Overlaying transit route maps between these locations, we found a lack of transit coverage for Gilpin Court residents.

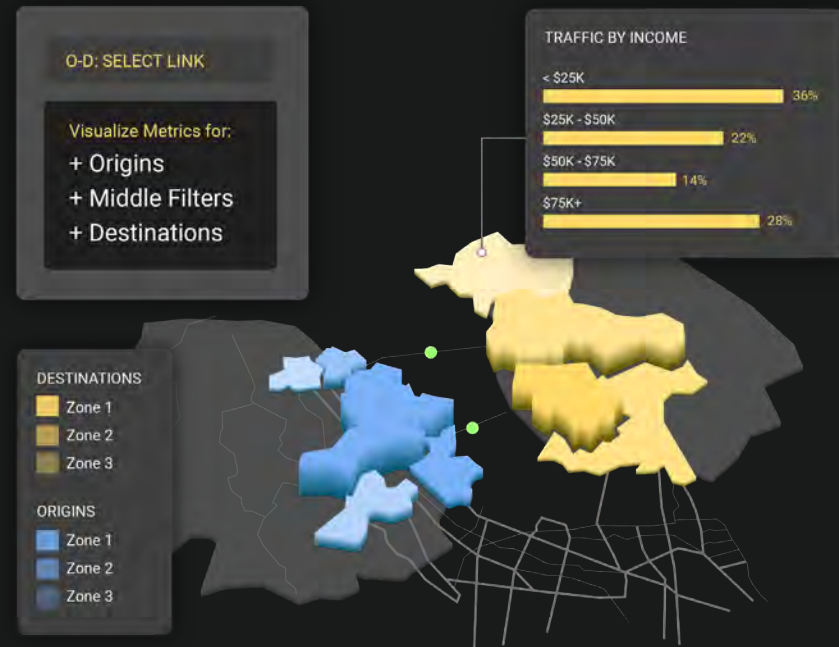
We also found that travel among these likely essential employees didn't follow traditional peak AM and PM patterns. This correlates with the national decline of peak AM travel, but this observation warrants further analysis since many essential employees are also likely off-hours shift workers.

Optimize mobility for essential workers in your communities

Get demographic metrics for Origin-Destination analyses, including race and income, to measure impact across populations and neighborhoods.



streetlightdata.com/social-equity



IV: THE RENAISSANCE OF BICYCLING

StreetLight's year-over-year [analysis of bicycle travel](#) conducted in May 2020 confirmed the anecdotal cycling "boom" during quarantine and the sustained periods of work-from-home that followed. This initial rush of cycling activity fed Slow Streets movements amid calls for increased safety.

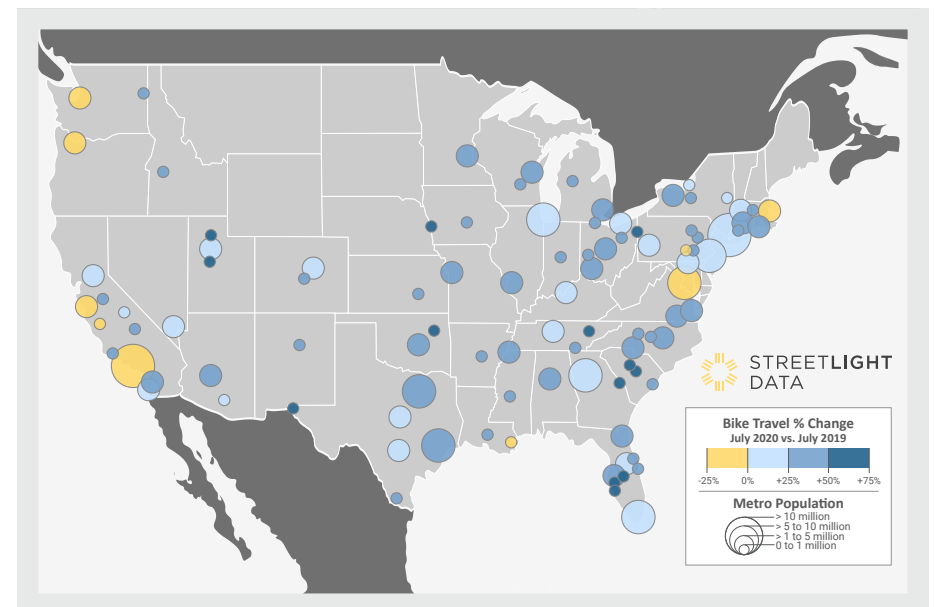
We analyzed 100 of America's most-populated MSAs, and initially found that cycling actually *dropped* in cities with previously high levels of cycling commuting, including San Francisco, Seattle, Chicago, Philadelphia, and New York. [A subsequent study by BloombergNEF](#) using StreetLight Metrics confirmed that these declines were concentrated during weekdays, when large cohorts previously commuting to the office by bicycle were now working from home.

However, bicycle activity in those cities decreased less than vehicle miles traveled did, suggesting that even if they aren't commuting, residents of a city with strong bike infrastructure are still increasing the use of bikes as a percentage of all travel during COVID.

Conversely, cycling activity *doubled* during May and June in metro areas not known for bike commuting, including Ogden (UT), Lakeland (FL), Knoxville (TN), Columbia (SC), and Provo (UT).

One might think that increase could be due to these areas' popularity for mountain biking, road biking, and/or triathlon training. But our analysis showed that even though average trip lengths increased, they remained below five miles on average, much shorter than a typical road or mountain biking workout, implying that "everyday cycling" (versus specialized athletic training) likely also increased.

In July, we see that on average the metros we analyzed gave back some of their gains.



Of the 10 metros with increased year-over-year bike travel for May, three have nearly recovered back to pre-COVID levels by July: Chicago, New York, and Philadelphia. All three cities also saw substantial recovery in VMT by July, with the Chicago metro back to normal, New York 15% below pre-COVID VMT levels, and Philadelphia 19% below.

July 2020 cycling activity remains below 2019 levels in San Francisco, Washington, D.C., and Boston. This enduring drop dovetails with sustained lower VMT in those cities related to office closures in the urban core and anecdotal reports of city residents temporarily relocating.

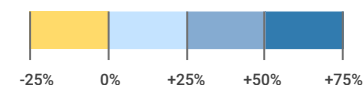
In addition, as many as 15 smaller U.S. metros have by July lost at least 50% of their year-over-year biking gains observed in May. These include historically car-friendly California metro areas anchored by Oxnard-Thousand Oaks, Bakersfield, and Riverside.

By and large, however, the remaining 70+ U.S. metro areas continued to see substantial year-over-year bicycling gains in July.

In sum, our July analysis shows a nationwide 12% year-over-year gain in bike ridership on average, with VMT trailing about 15% for the same period – encouraging data for what could be a rejuvenation of bicycling in this country.

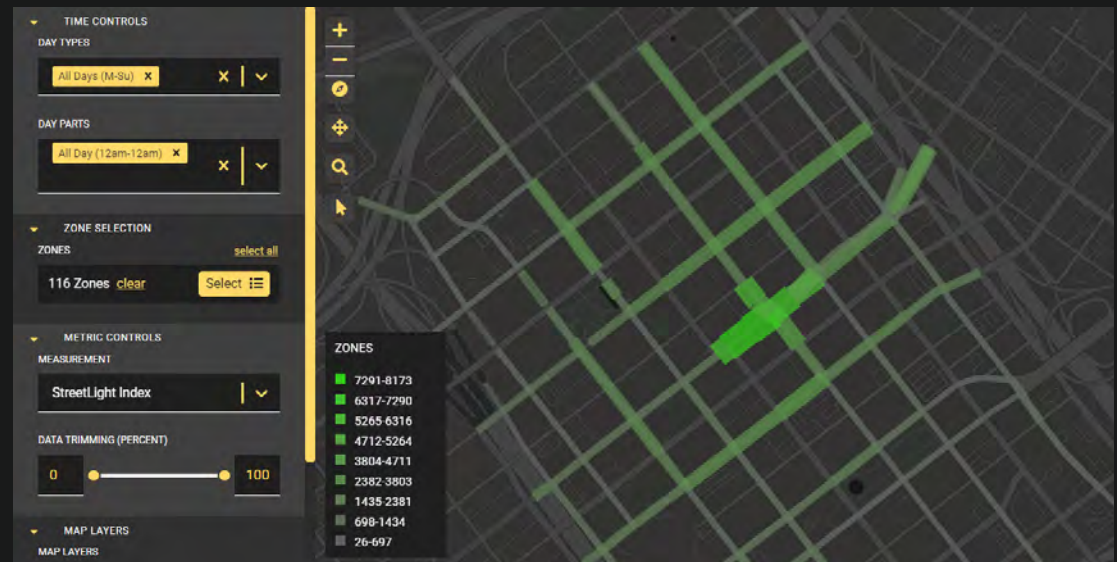
TREND IN BIKE RIDERSHIP FROM MAY 2020 TO JULY 2020

	May 2020 YOY Increase	Trend	July 2020 YOY Increase
Oxnard-Thousand Oaks-Ventura, CA Metro Area	Dark Blue	▼	Light Blue
Bakersfield, CA	Dark Blue	▼	Light Blue
Milwaukee-Waukesha-West Allis, WI	Dark Blue	▼	Light Blue
Houston-The Woodlands-Sugar Land, TX	Dark Blue	▼	Light Blue
Minneapolis-St. Paul-Bloomington, MN-WI	Dark Blue	▼	Light Blue
Tampa-St. Petersburg-Clearwater, FL	Dark Blue	▼	Light Blue
Richmond, VA	Dark Blue	▼	Light Blue
Riverside-San Bernardino-Ontario, CA	Dark Blue	▼	Light Blue
San Antonio-New Braunfels, TX	Dark Blue	▼	Light Blue
Orlando-Kissimmee-Sanford, FL	Light Blue	▼	Light Blue
Salt Lake City, UT	Light Blue	▼	Light Blue
Denver-Aurora-Lakewood, CO	Light Blue	▼	Light Blue
Nashville-Davidson—Murfreesboro—Franklin, TN	Light Blue	▼	Light Blue
San Diego-Carlsbad, CA	Light Blue	▼	Light Blue
Harrisburg-Carlisle, PA	Light Blue	▼	Yellow
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	Yellow	▲	Light Blue
New York-Newark-Jersey City, NY-NJ-PA	Yellow	▲	Light Blue
Chicago-Naperville-Elgin, IL-IN-WI	Yellow	▲	Light Blue
San Francisco-Oakland-Hayward, CA	Yellow	—	Yellow
Washington-Arlington-Alexandria, DC-VA-MD-WV	Yellow	—	Yellow
Boston-Cambridge-Newton, MA-NH	Yellow	—	Yellow



Explore 2019 and 2020 Bicycle and Pedestrian Metrics

Get access to data from the last few months to compare bike and ped trends to last year's metrics to understand the impact of COVID-19.



streetlightdata.com/bike-ped

V: THE NEW METRICS THAT MATTER

The trends covered in this report wouldn't have been identifiable without the Location-Based Services (LBS) data we used to uncover them. LBS data populates the core StreetLight Metrics used for this research, including Origin-Destination, Vehicle Miles Traveled, Trip Volume, and Trip Attributes.

Creating a comprehensive, focused report within minutes using LBS data allows transportation agencies to form and test hypotheses quickly, freeing resources to solve problems instead of figuring out what the problems are.

And the problems are growing. We hear that from our customers, which include a cross section of public agencies and private organizations across the transportation industry. They are focused on a handful of particularly dynamic issues the pandemic has introduced:

- budget uncertainty
- transit, bicycle, and other alternate mode use (or disuse)
- deeper focus on safety and transportation equity
- trip purpose (including commuting)

How do we adjust and manage transportation to respond to these changes? Conditions are shifting more quickly than ever, and we want to help you stay effective.

Throughout this report, we provided specific references (and links to) StreetLight Metrics to help you move beyond national and regional insights, and zero in on your own counties, cities, zip codes, and zones.

You can also learn more about on-demand access to AADT, O-D, Top Routes, and more on our Transportation Metrics page referenced below.



We invite you to peruse these multimode “essentials for everyday” traffic analyses further on our website at

[streetlightdata.com/
transportation-metrics](https://streetlightdata.com/transportation-metrics)

 COVID Q3 WEBINAR

COVID Trends Live Update

Because the world will change even as we go to print with this e-book.

MEET THE AUTHORS

Get the data as it emerges.



MARTIN MORZYNSKI



PHAEDRA HISE



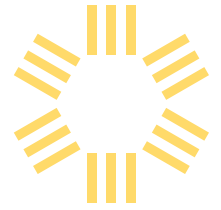
THOMAS GROGAN



REGISTER HERE:

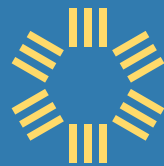
[streetlightdata.com/
COVID-ebook-webinar](https://streetlightdata.com/COVID-ebook-webinar)

About StreetLight Data



StreetLight Data pioneered the use of Big Data analytics to help transportation professionals solve their biggest problems. Applying proprietary machine-learning algorithms to over four trillion spatial data points over time, StreetLight measures diverse travel patterns and makes them available on-demand via the world's first SaaS platform for mobility, StreetLight InSight®. From identifying sources of congestion to optimizing new infrastructure to planning for autonomous vehicles, StreetLight powers more than 6,000 global projects every month.

For more information please visit: streetlightdata.com.



STREETLIGHT

Big Data for Mobility

streetlightdata.com

© Copyright 2020 StreetLight Data. All rights reserved.

**ATTACHMENT A
NORTH CAPITAL IMPROVEMENT PLAN**

Timeframe A #1	Service Area	Roadway	Limits	Description	RTP \$	Comments
2026-30	N	Buck Dr	Lemmon Dr to N Hills Blvd	Widen 2 to 4 lanes	\$1,912,000	
2021-25	N	Dolores Drive	Existing Dolores west to Lazy 5 Pkwy	New 2 lane road	\$1,500,000	
2021-25	N	Highland Ranch Pkwy	Five Ridges to Pyramid Hwy	Widen 2 to 4 lanes	TBD	New Project
2021-25	N	Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	New 2 lane road	\$6,400,000	
2021-25	N	Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	New 4 lane road west of Pyramid Hwy transitioning to 2 lanes at future development entrance	\$27,600,000	
2021-25	N	Lemmon Drive	US 395 to Military Rd	Widen 4 to 6 lanes - US 395 to Military Rd	\$22,500,000	
2021-25	N	Lemmon Drive	Fleetwood Dr to Chickadee Dr	Widen 2 to 4 lanes - Fleetwood Dr to Chickadee Dr	\$39,000,000	
2022-26	N	Loop Rd	Salomon Circle to Eastern Slope Rd	New 2 lane road	\$4,900,000	Project Removed due to feasibility/need
2026-30	N	Military Rd	Lemmon Dr to Echo Ave	Widen 2 to 4 lanes	\$25,412,000	
2026-30	N	Moya Blvd	Red Rock Rd to Echo Ave	Widen 2 to 4 lanes	\$19,678,000	
2026-30	N	Moya Blvd Extension	Lemmon Dr to Echo Ave	New 2 lane road	\$74,100,000	New Project - 1st 2 lanes not RRIF Eligible
2026-30	N	N. Hills Blvd	Golden Valley Rd to Buck Dr	Widen 2 to 4 lanes	\$20,465,000	New Project
2021-25	N	N/S Connector Rd	Stonebrook Pkwy to Wingfield Hills Rd	New 2 lane road	\$8,400,000	
2026-30	N	North Virginia St	McCarran Blvd to Panther	Sidewalks and bike lanes. An off-street shared-use path may be considered	\$17,878,000	
2026-30	N	North Virginia St	Panther to Stead Blvd	Widen from 2 to 4 lanes and multimodal improvements	\$43,291,000	
2021-25	N	Oddie Blvd/Wells Ave	I-80 to Pyramid Way	Multimodal improvements	\$36,000,000	
2022-26	N	Rain Blvd	Ferrari MeLead to Raggio Pkwy	Interchange improvements	\$7,700,000	Improvements constructed
2017-21	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on RDMIP	\$1 million per year	\$5,500,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on RDMIP	\$1.20 million per year	\$6,400,000	Program removed from RRIF eligibility and RRIF funding
2021-25	N	Pyramid Hwy/Sun Valley/US 395 Connector Phase 1	Queen Way to Golden View	Widen Pyramid to 6 lanes from Queen Way to Golden View	\$54,100,000	
2026-30	N	Pyramid Hwy/Sun Valley/US 395 Connector Phase 2	Disc Drive Widening	Widen Disc drive from Pyramid Hwy to Vista Blvd	\$22,300,000	New Project
2026-30	N	Red Rock Rd	US 395 to Placerville Drive	Widen 2 to 4 lanes	\$58,246,000	
2026-30	NS	Sierra Street	California Ave to 9th St	Widen sidewalks & add bike lanes	\$5,060,000	
2021-25	N	Sky Vista Pkwy	Lemmon Dr to Silver Lake Rd	Widen 2 to 4 lanes	\$15,800,000	
2021-25	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$40,000,000	
2026-30	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$44,977,000	
2017-21	N	Stonebrook Parkway	La Posada Dr to N/S Connector Rd	New 2 lane road	\$11,300,000	Improvements constructed
2021-25	N	Stonebrook Parkway	N/S Connector Rd to Pyramid Highway	New 2 lane road	\$8,100,000	
2021-25	N	Sun Valley Blvd	7th Ave to Scottsdale	Multimodal improvements	\$25,000,000	
2017-21	NS	Traffic Signals: ITS Operations & Intersections	Systemwide	\$2.6 million per year	\$14,100,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Traffic Signals: ITS Operations & Intersections	Systemwide	\$3.32 million per year	\$16,600,000	Program removed from RRIF eligibility and RRIF funding
2021-25	N	Victorian Avenue	16th Street to Pyramid Way	Bike lanes	\$2,300,000	
2026-30	N	Vista Blvd	I-80 to Prater Way	Widen 4 to 6 lanes	\$11,244,000	New Project
2021-25	N	Whitelake Parkway	US 395 Interchange Improvements	Interchange improvements	\$28,000,000	Project Cost and description updated
2021-25	N	Whitelake Parkway	US 395 to Town Center North Road	Widen 2 to 4 lanes	\$2,800,000	New Project
2021-25	N	Wingfield Hills Rd	Existing Wingfield Hills Rd west to David Allen Pkwy	New 4 lane road	\$5,000,000	

**ATTACHMENT B
SOUTH CAPITAL IMPROVEMENT PLAN**

Timeframe A #1	Service Area	Roadway	Limits	Description	RTP \$	Comments
2017-21	S	2nd Street	Keystone Ave to I-580	Multimodal improvements (corridor study completed) Phase 1	\$3,000,000	Project Removed due to feasibility/need
2021-25	S	4th Street (Reno)	Keystone Avenue to Evans Ave	Enhanced sidewalks and bus/bike lanes, intersection improvements	\$35,000,000	
2022-26	S	Arrowcreek Pkwy	Wedge Pkwy to Zolezzi Ln	Widen 2 to 4 lanes	\$8,300,000	Moved to RTP outer years (2031-2050)
2021-25	S	Center Street	Moran to 9th Street	Widen sidewalks & add bike lanes	\$10,000,000	
2021-25	S	Damonte Ranch Pkwy	Veterans Pkwy to Rio Wrangler Pkwy	New 2 lane road	\$7,100,000	1st 2 lanes not RRIF Eligible
2026-30	S	Damonte Ranch Pkwy	I-580 to Double R	Roadway widening	\$4,723,000	New Project
2021-2025	S	Day Break	South Meadows Pkwy to Rio Poco Rd	Traffic and circulation improvements	TBD	New Project
2017-21	S	Forest Street	California Avenue to Mount Rose Street	Bike facility	\$4,100,000	Project Removed due to feasibility/need
2022-26	S	Geiger Grade	Toll Rd to Rim Rock	Widen 2 to 4 lanes	\$26,300,000	Project Removed due to feasibility/need
2026-30	S	Geiger Grade Realignment	Virginia St to Toll Rd	New 4 lane road	\$84,445,000	1st 2 lanes not RRIF Eligible
2017-21	S	Glendale Ave	Kietzke Ave to McCarran Blvd	Pavement reconstruction & multimodal improvements	\$46,400,000	Improvements constructed
2026-30	S	Keystone Ave	California to I-80	Multimodal improvements and Truckee River bridge replacement	\$61,169,000	
2022-26	S	Kietzke Ln	Virginia St to Galletti Way	Multimodal improvements Phase 2	\$10,700,000	Moved to RTP outer years (2031-2050)
2017-21	S	Kietzke Ln	Virginia St to Galletti Way	Multimodal improvements Phase 1	\$4,800,000	Moved to RTP outer years (2031-2050)
2021-25	S	McCarran Blvd	Kietzke to Greensboro	Intersection and Operations	\$10,000,000	New Project
2026-30	S	Mill Street	Kietzke to Terminal	Roadway widening and multimodal	\$60,000,000	New Project
2026-30	S	Mill St/Terminal Way	Reno Tahoe International Airport to Lake St (downtown Reno)	Multimodal & intersection improvements, add EB lane from Kietzke Ln to US 395	\$27,436,000	
2017-21	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on BMP	\$1 million per year	\$5,500,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Pedestrian & Bicycle Facility Improvements	Spot improvements systemwide based on BMP	\$1.20 million per year	\$6,400,000	Program removed from RRIF eligibility and RRIF funding
2026-30	S	Pembroke Drive	McCarran Blvd to Veterans Pkwy	Roadway widening and multimodal	\$19,790,000	New Project
2022-26	S	Plumb Lane	Lakeside Drive to Kietzke Lane	Sidewalks and bike lanes	\$8,200,000	Moved to RTP outer years (2031-2050)
2026-30	S	Rio Wrangler Extension North	South Meadows Pkwy to Bucephalus Pkwy	New 2 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2026-30	S	Rio Wrangler Extension South	Damonte Ranch Pkwy to Veterans Pkwy	New 2 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2026-30	S	S. Virginia Street	I-580 to Longley	Add NB Lane	\$23,613,000	New Project
2026-30	NS	Sierra Street	California Ave to 9th St	Widen sidewalks & add bike lanes	\$5,060,000	
2026-30	S	South Meadows Extension	Mojave Sky Drive to Rio Wrangler	New 4 lane road	TBD	New Project - 1st 2 lanes not RRIF Eligible
2022-26	S	South Virginia Street	E. Patriot Blvd to Mt. Rose Hwy/Geiger Grade	Add sidewalk and bike lane, convert travel lane to bus/bike lane	\$16,000,000	Moved to RTP outer years (2031-2050)
2017-21	S	South Virginia Street	South of Arrowcreek Pkwy to the I-580 interchange	Safety and multimodal improvements including traffic signal and median	\$6,000,000	Moved to RTP outer years (2031-2050)
2021-25	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$40,000,000	
2026-30	NS	Sparks Blvd	Greg to Baring	Multimodal improvements, widen 4 to 6 lanes - Greg to I-80, widen 4-6 lanes - I-80 to Springland	\$44,977,000	
2026-30	S	Steamboat Pkwy	Promenade Way to Veterans Pkwy	Widen from 4 to 6 lanes	\$4,610,000	New Project
2017-21	NS	Traffic Signals, ITS Operations & Intersections	Systemwide	\$2.6 million per year	\$14,100,000	Program removed from RRIF eligibility and RRIF funding
2022-26	NS	Traffic Signals, ITS Operations & Intersections	Systemwide	\$3.22 million per year	\$16,600,000	Program removed from RRIF eligibility and RRIF funding
2021-25	S	Vassar Street	Holcomb Avenue to Terminal Way	Bike lanes	\$4,300,000	
2021-25	S	Vine Street	Riverside Drive to University Terrace	Bike lanes	\$11,300,000	
2022-26	S	W 2nd Street (Reno)	Keystone Avenue to Galletti Way	Enhanced sidewalks, landscaping, bike lanes	\$40,500,000	Project Removed due to feasibility/need



REGIONAL TRANSPORTATION COMMISSION

Metropolitan Planning • Public Transportation & Operations • Engineering & Construction

Metropolitan Planning Organization of Washoe County, Nevada

MEETING DATE: April 22, 2021

AGENDA ITEM 5.1

To: Regional Road Impact Fee Technical Advisory Committee (RRIF TAC)

From: Dale Keller, P.E., Engineering Manager

RECOMMENDED ACTION

Acknowledge receipt of a report on the RRIF General Administrative Manual (GAM) update and the Vehicle Miles Traveled (VMT) rates proposed to be included in the Capital Improvement Plan (CIP).

BACKGROUND AND DISCUSSION

The RRIF fees are based on the development of a regional impact fee capital improvement plans that identify planned projects over a 10 year timeframe to provide roadway capacity to accommodate new development within each Service Area. The projects were identified based on analysis of existing and forecasted conditions, regional travel demand model outputs incorporating the adopted land use assumptions, and the professional judgment of transportation planners of the RTC and participating local governments.

The cost per service unit is determined by dividing the cost of providing additional roadway capacity by the amount of new capacity supplied. NRS 278B requires that impact fees take into account other funding sources. The major sources of funding for improvements to the regional roadway network are based on Federal, State, Regional (Fuel Tax, and Sales Tax) plus Other Revenue Sources, i.e., private development.

Vehicle Miles of Travel (VMT) is the product of vehicles trips generated by land use categories multiplied by the average trip length. To determine the number of VMTs, an aggregate travel model was created to convert development units within each of the North and South Service Areas to vehicle trips. Projected development units are consistent with the master plans of Reno, Sparks, and Washoe County. TMRPA's Population & Employment model uses the 2020 Consensus Forecast to predict where and what type of growth will occur. Employment is broken down into employment categories and total square footage using standardized square foot per employee by employment type. Vehicle trips can then be calculated using ITE Trip Generation rates.

The Average Trip Length, measured in miles, is an output of the regional travel demand-forecasting model. Trip lengths by service area represents travel on the regional road network, excluding travel on local residential streets and freeways.

With the upcoming 7th Edition of the RRIF GAM, the draft average trip length in 2030 for the North Service Area on the regional road network is 3.41 miles and 3.46 miles for the South Services Area.