



New Mexico DEPARTMENT OF
TRANSPORTATION
MOBILITY FOR EVERYONE



U.S. Department of Transportation
**Federal Highway
Administration**

I-40 Corridor Study

Arizona to Albuquerque

Milepost 0 to 150

Public Meeting

November 15, 2022 | 6:30 pm





Introductions

Presenters

- **Joe Casares** - NMDOT Project Manager
- **Chris Baca** – Project Manager, Parametrix
- **Charles Allen** – Traffic Lead, Parametrix
- **Stephanie Miller** – Deputy Project Manager, Parametrix

Technical Team Representatives

- **Jill Mosher** – NMDOT District 3 Assistant Engineer
- **Rais Rizvi** – NMDOT District 6 Technical Support Engineer
- **Brent Hamlin** – Moderator, Parametrix



Meeting Information

Agenda

- Presentation
- Q & A session after the presentation
- Presentation will be recorded

How to use Zoom

- All participants will be muted until the end of the presentation.
- We will answer questions at the end of the meeting.
- We will provide instructions on how to ask a question for both call-in participants and web participants at the end of the presentation.



What area of I-40 is the NMDOT studying?





What is the purpose of the I-40 Corridor Study?

Develop Long-term Corridor Improvement Plan and Meet NMDOT/Federal Requirements

- **Identify corridor needs** – Understand **where** and **why** improvements are needed and what factors and existing conditions are contributing to safety and operational challenges.
- **Develop and evaluate alternatives** that will meet corridor needs and future traffic demands.
- **Develop an I-40 Corridor Improvement Plan** to prioritize improvements and streamline project planning, environmental review, design, and construction.



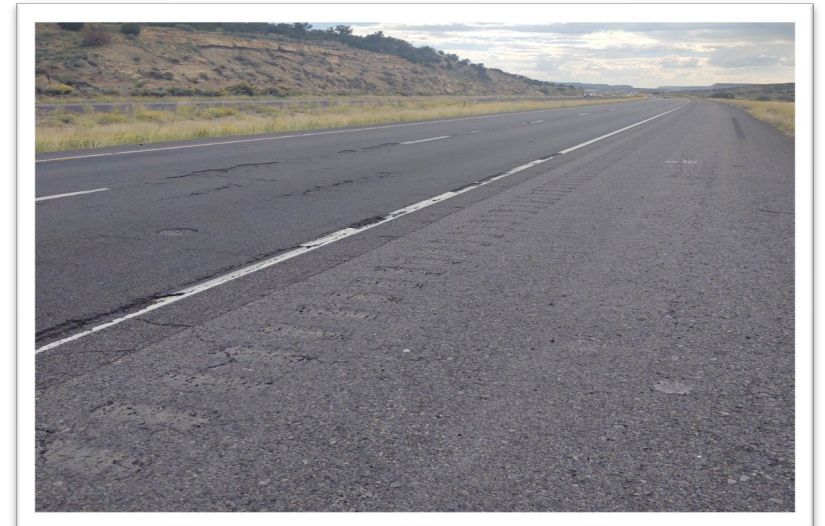
What information have we been collecting?

Traffic and Safety

- Traffic volumes and vehicle mix
- Crash information including location, severity, and type
- Traffic speeds and information such as hard braking
- Past traffic volumes and growth trends
- Freight information

Roadway Condition

- Pavement and geotechnical conditions
- Lane, shoulder, and median widths
- Safety and roadway geometry (curves, grades, etc.)





What information have we been collecting?

Infrastructure Condition

- Bridge information, including condition, age, and constraints
- Drainage information including culvert locations, sizes, condition, age, and capacity
- Utility locations
- Intelligent transportation systems (ITS), such as messaging signs

Other Information

- Right-of-way and property ownership
- Gathering information from stakeholders and roadway users (public and freight survey, tribes, and Regional Transportation Organizations)
- Environmental constraints including cultural and natural resources



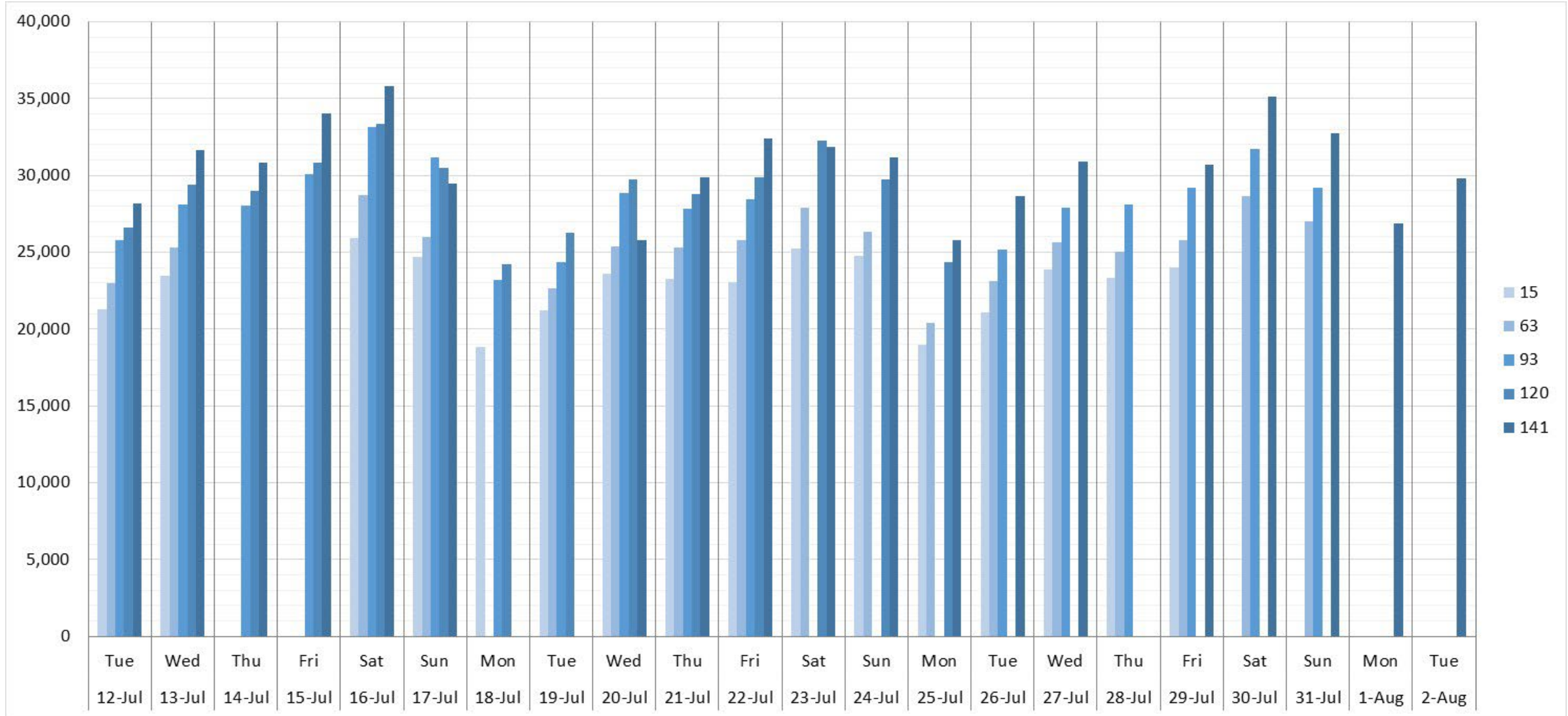


What have we learned? I-40 Traffic Volumes



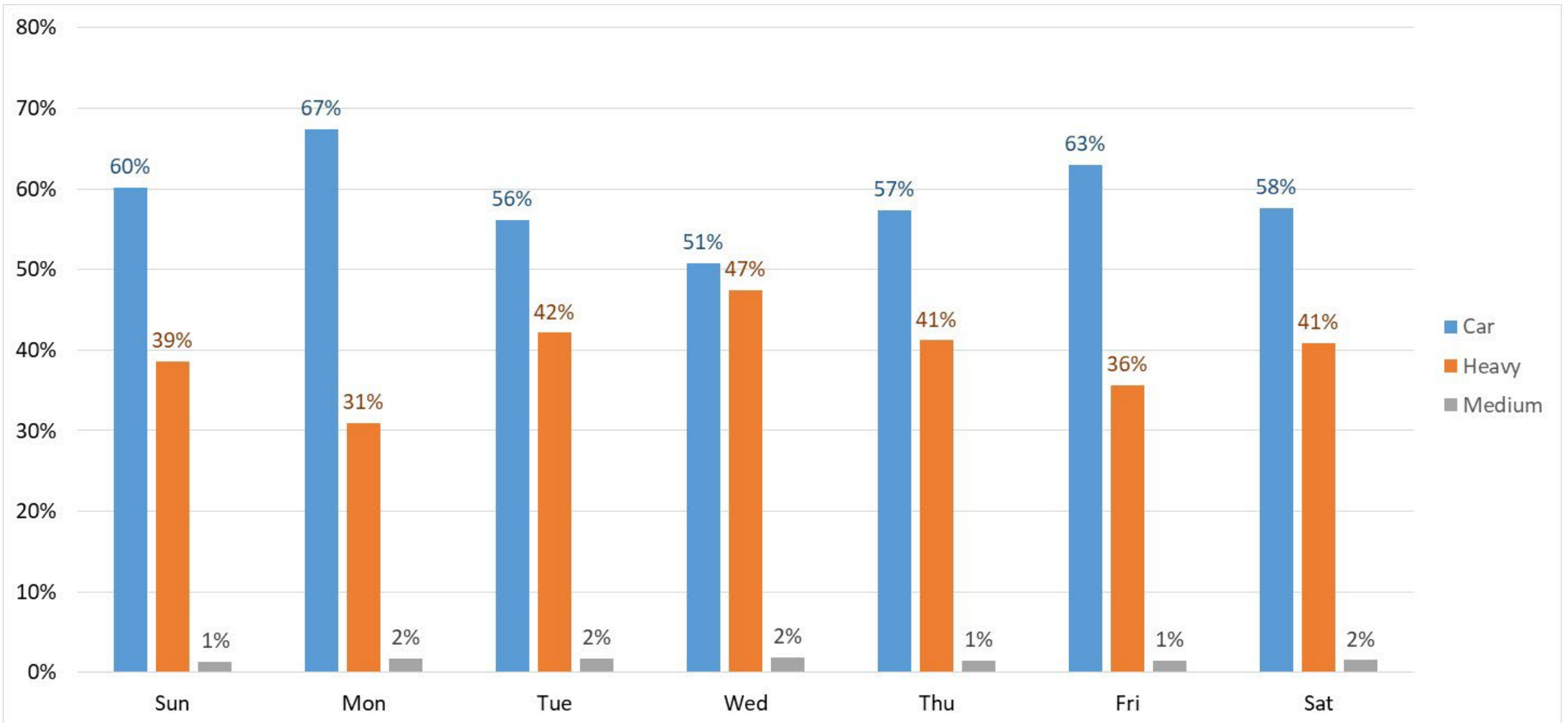


What have we learned? I-40 Traffic Volumes



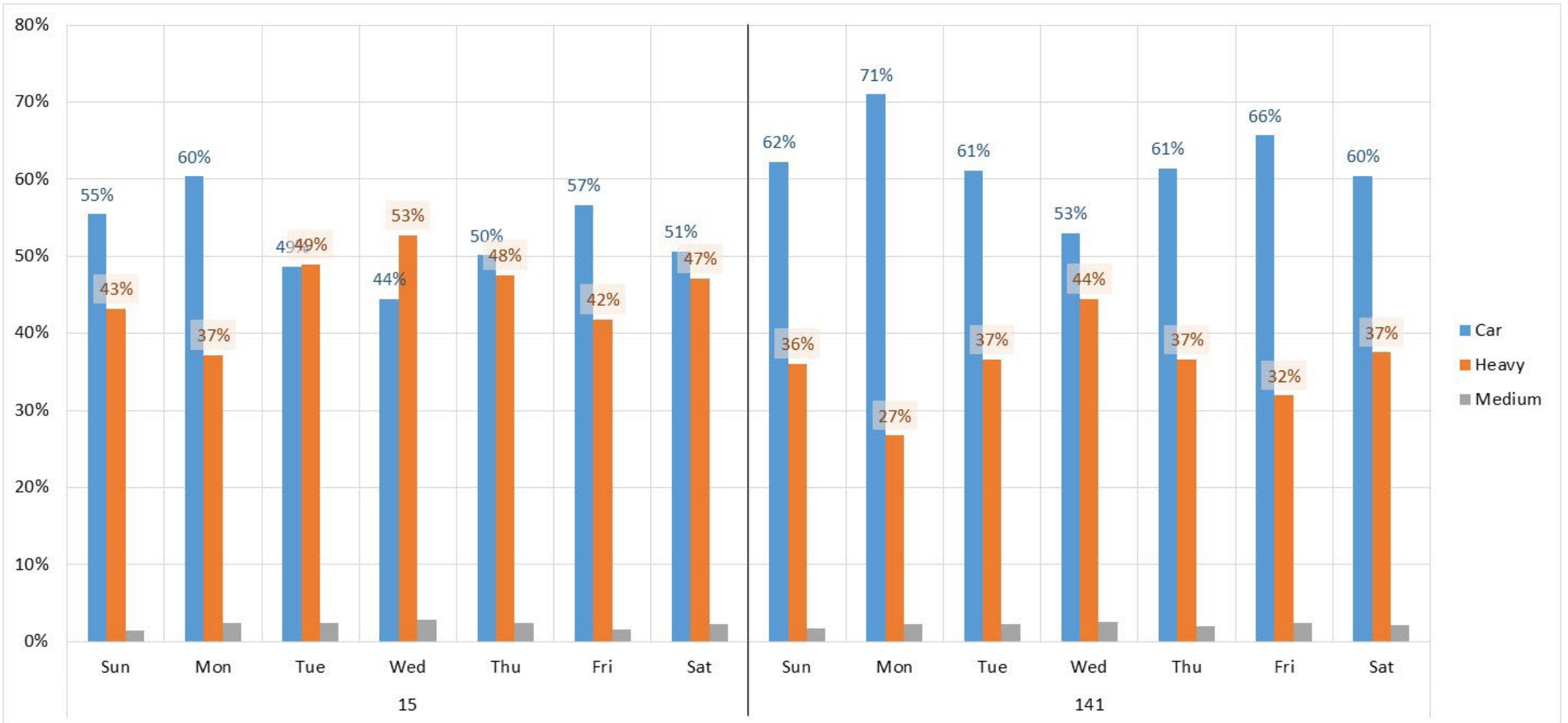


Vehicle Type by Day of Week: Corridor Average



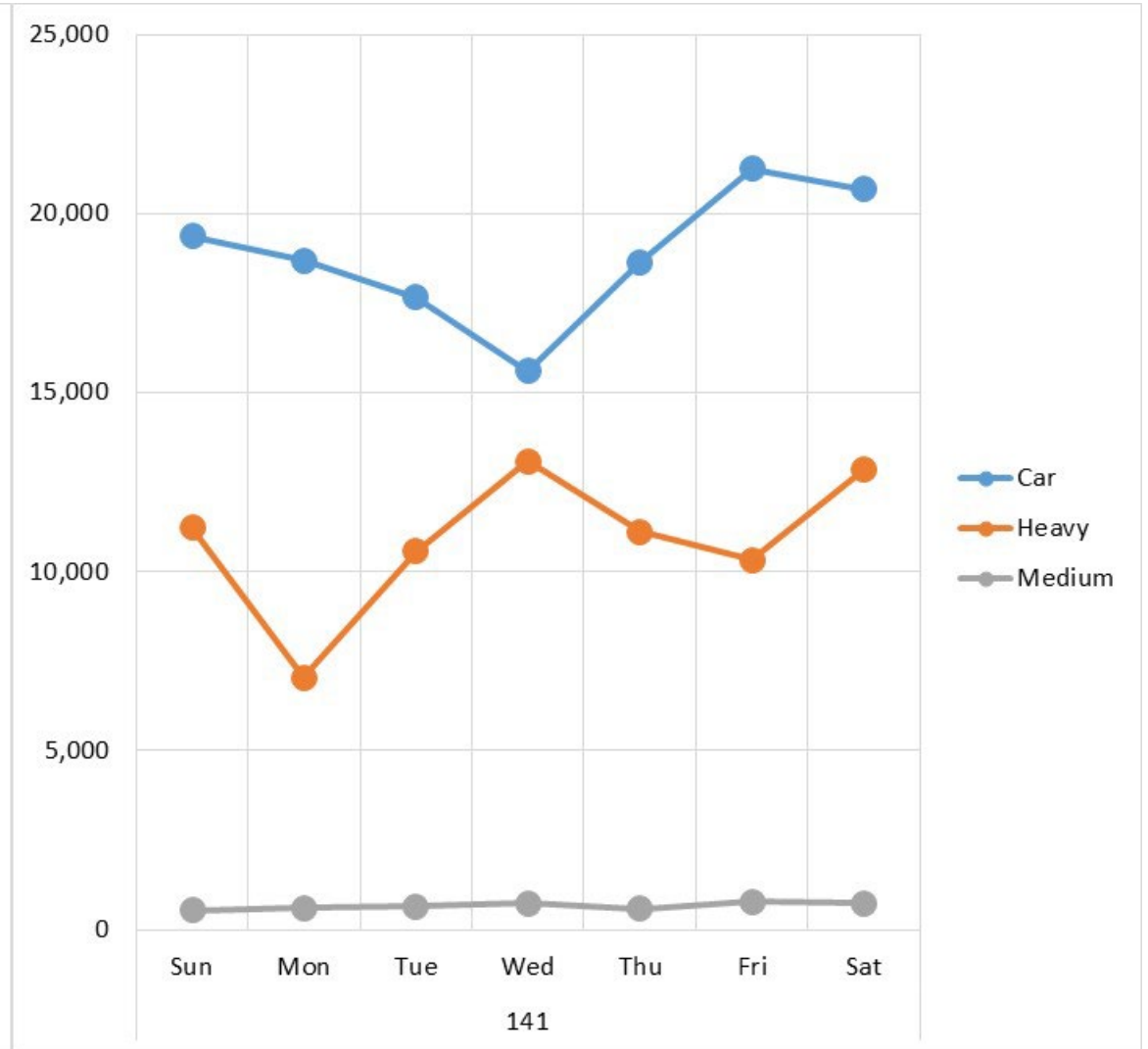
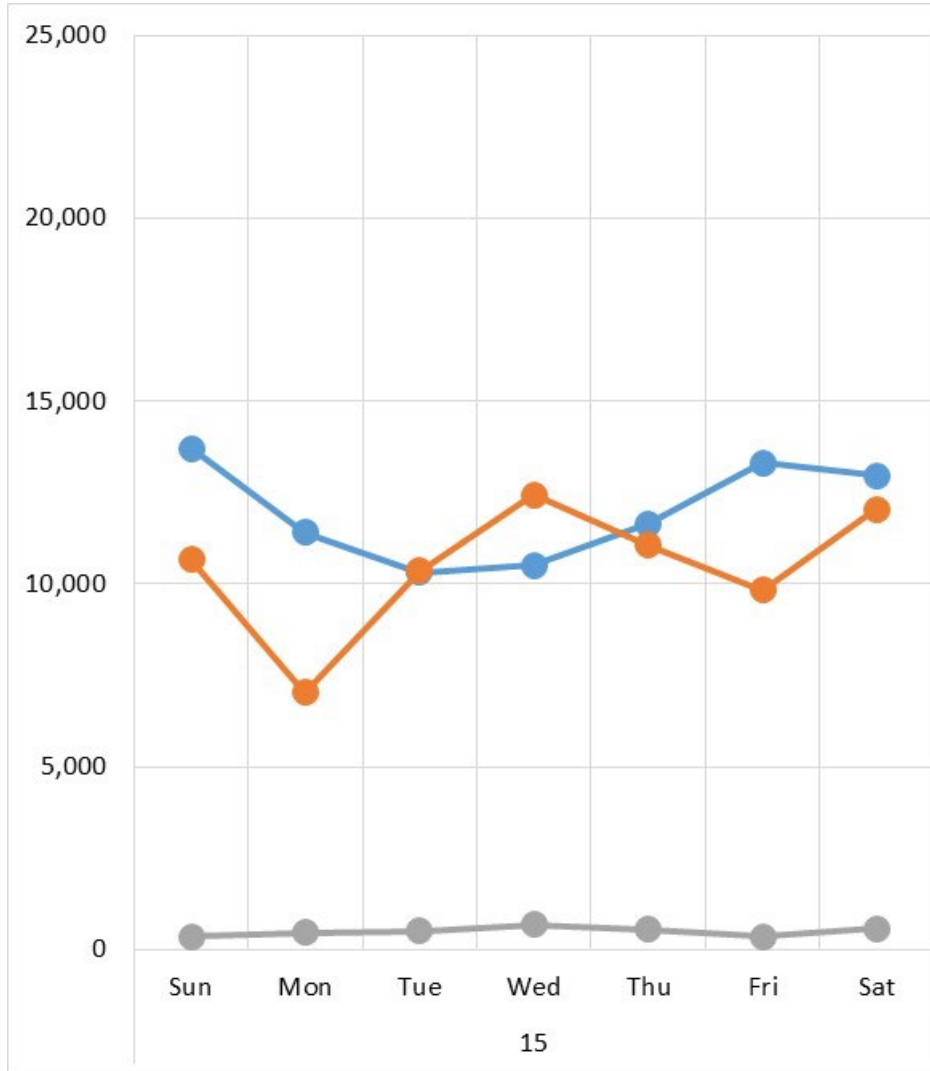


Vehicle Type by Day of Week: MP 15 vs MP 141



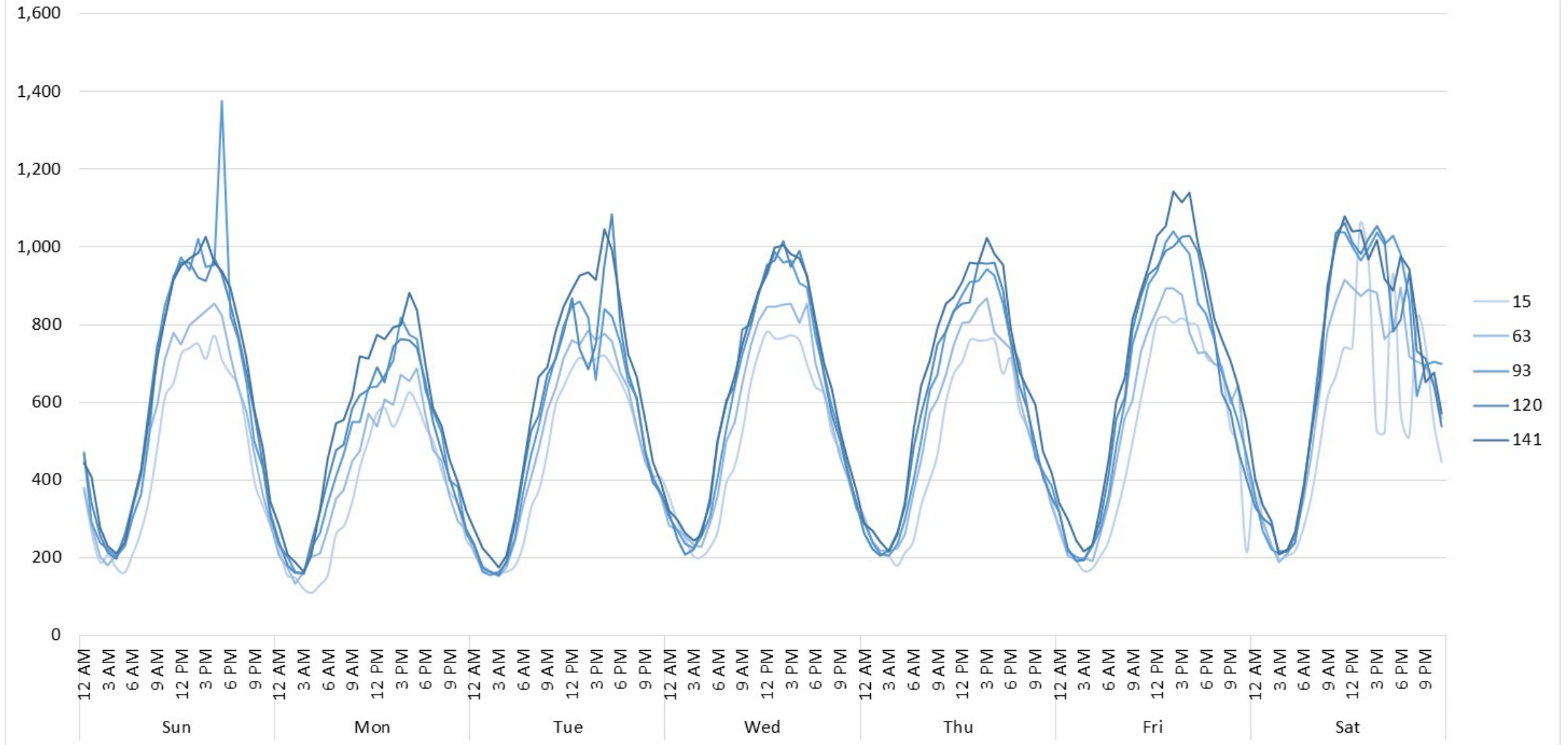


Vehicle Type by Day of Week: MP 15 vs MP 141





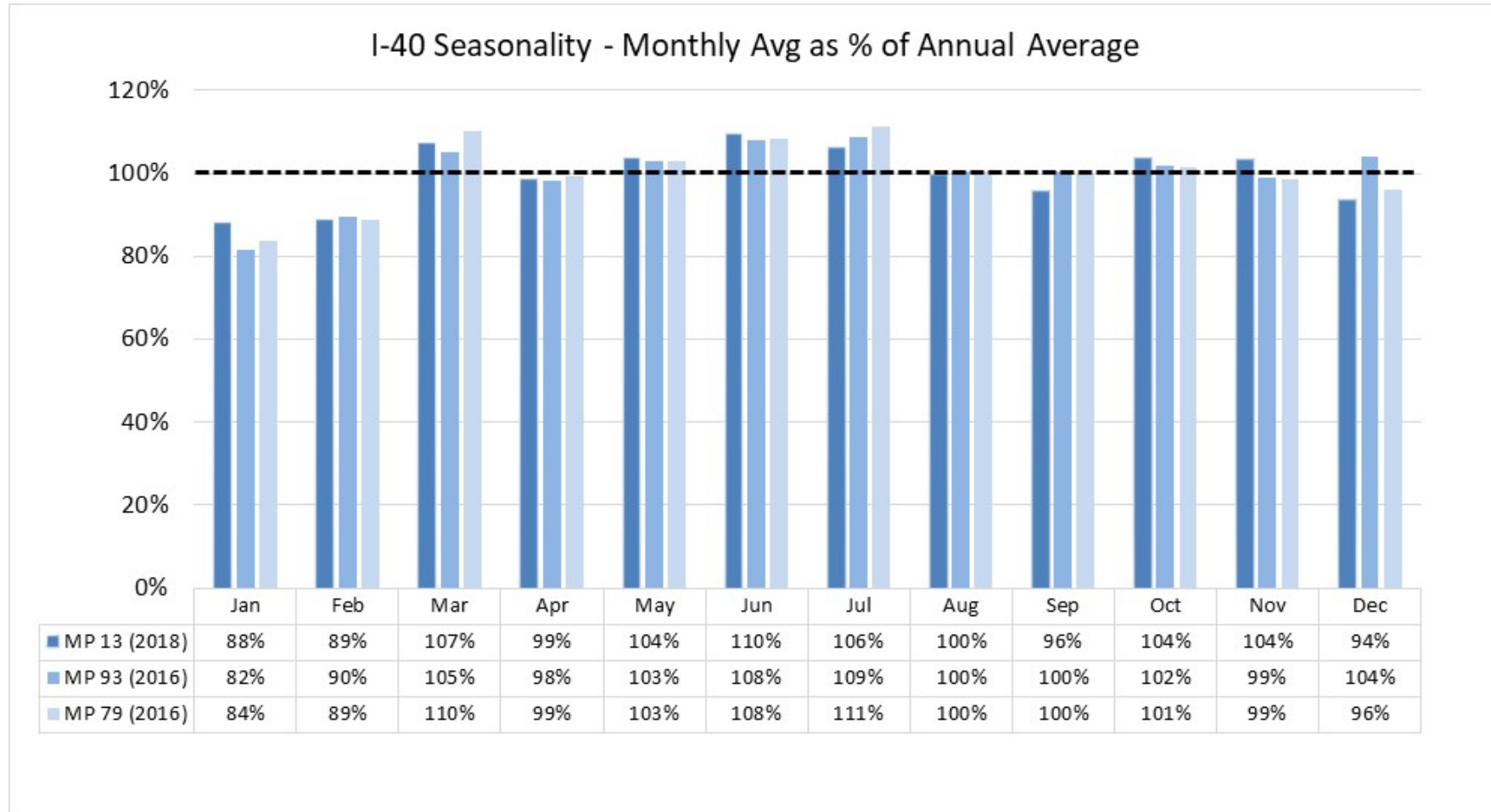
I-40 Traffic Volumes By Hour





I-40 Traffic Volumes by Month

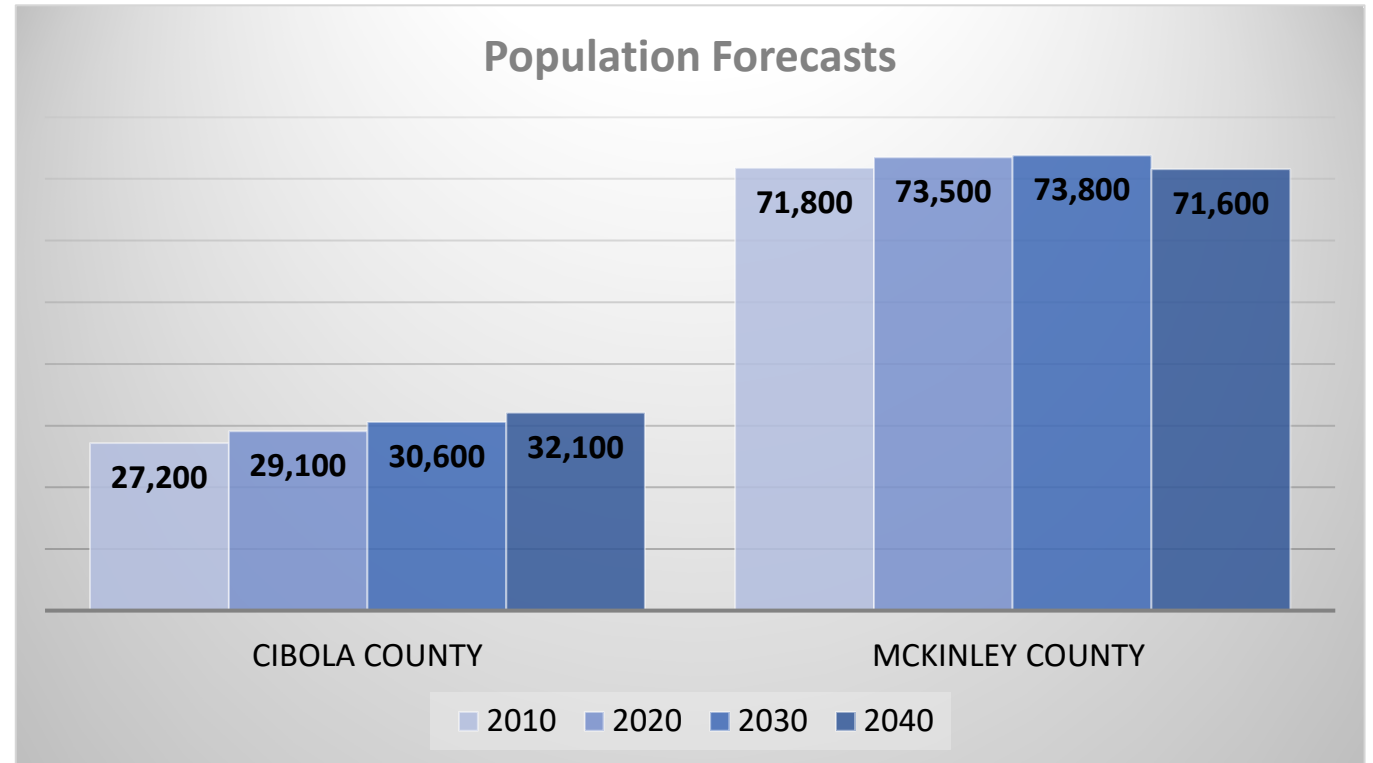
- More traffic in spring/summer months
- Fall is about average
- Jan/Feb volumes drop





I-40 in 2040 – Local Traffic Growth

- Cibola County: < 1% annual population growth
- McKinley County: Population growth not expected

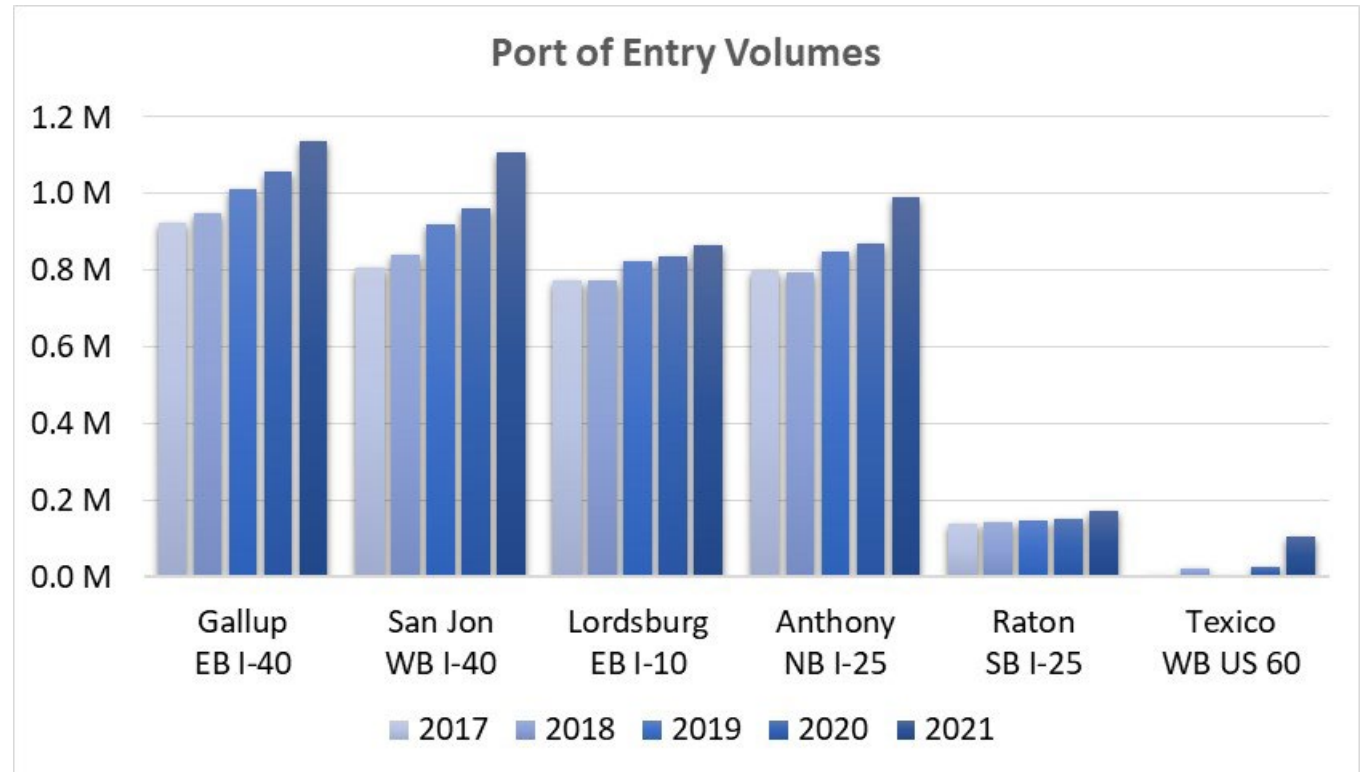


Source: Northwest New Mexico Regional Council of Governments Regional Transportation Plan (Jan 2021)



I-40 Recent Freight Growth

- Port of entry volumes showing upward growth trend
- I-40 port of entry volumes the highest in the state

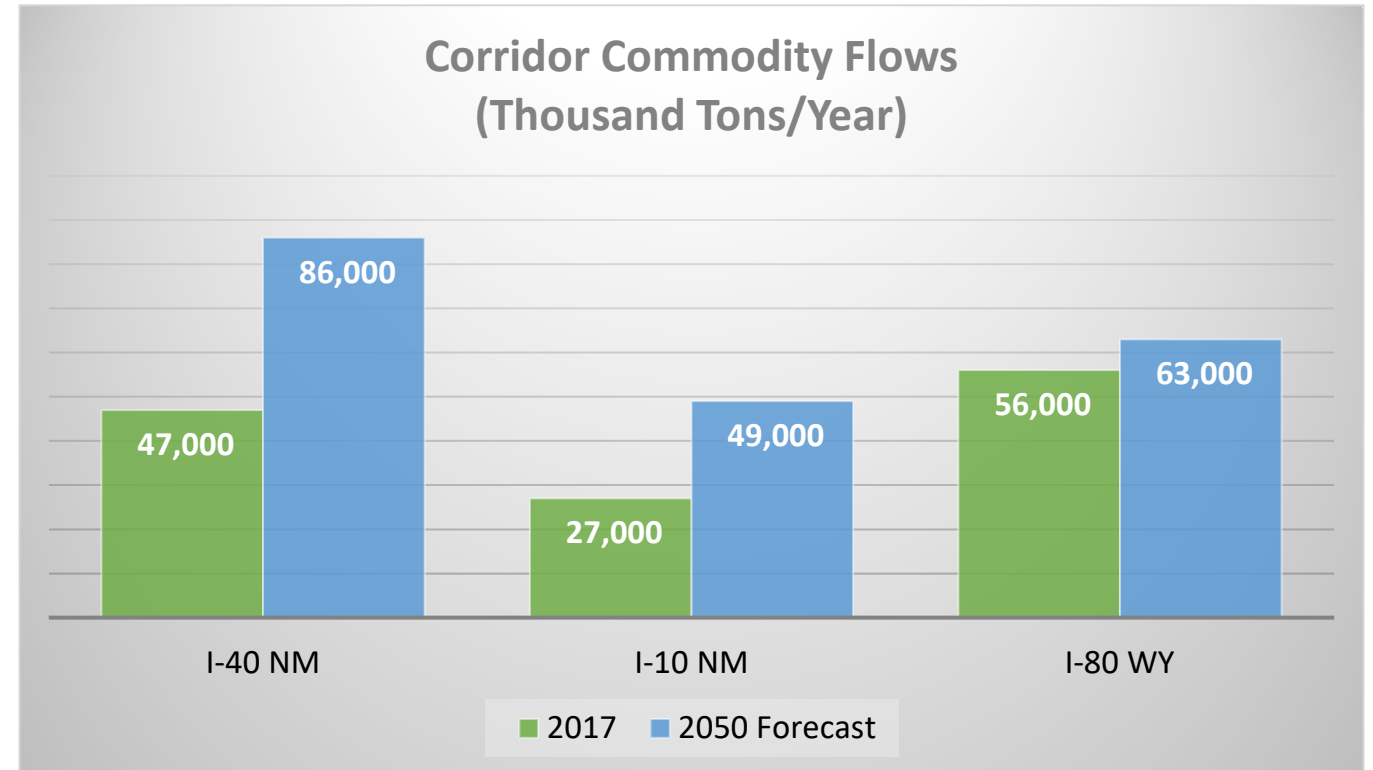


Source: NMDOT



I-40 Freight Growth in 2050

- I-40 commodity flows in New Mexico are expected to increase dramatically
- Growth forecasts on comparable corridors are strong, but less dramatic

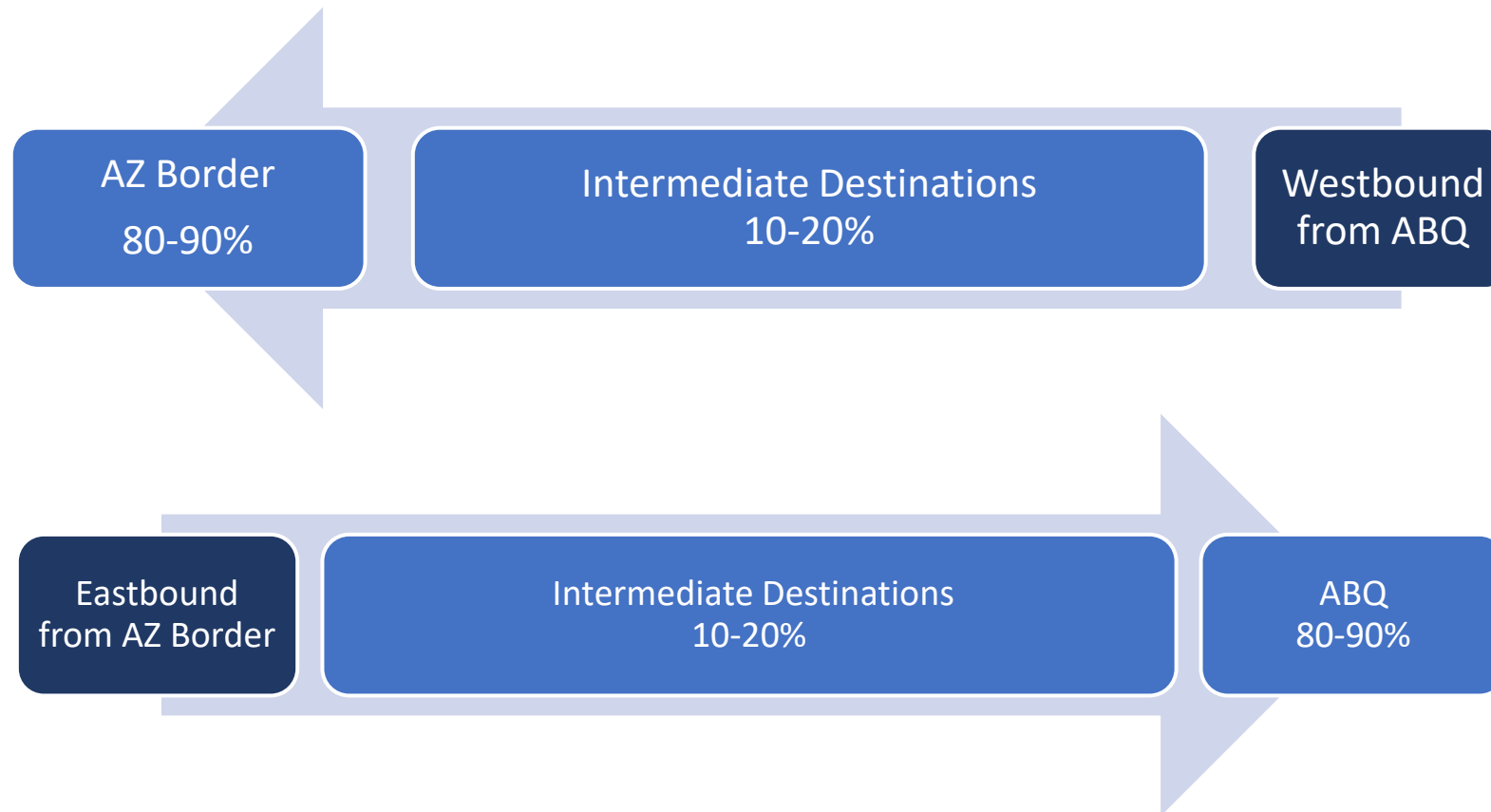


Source: Freight Analysis Framework 5.0, Federal Highway Administration, Bureau of Transportation Statistics



I-40 Freight Trips

- 80-90% of Freight trips are through trips





I-40 Freight Trips

Estimated FAF Flow for Trucks Passing Through New Mexico on National Highway System 2017

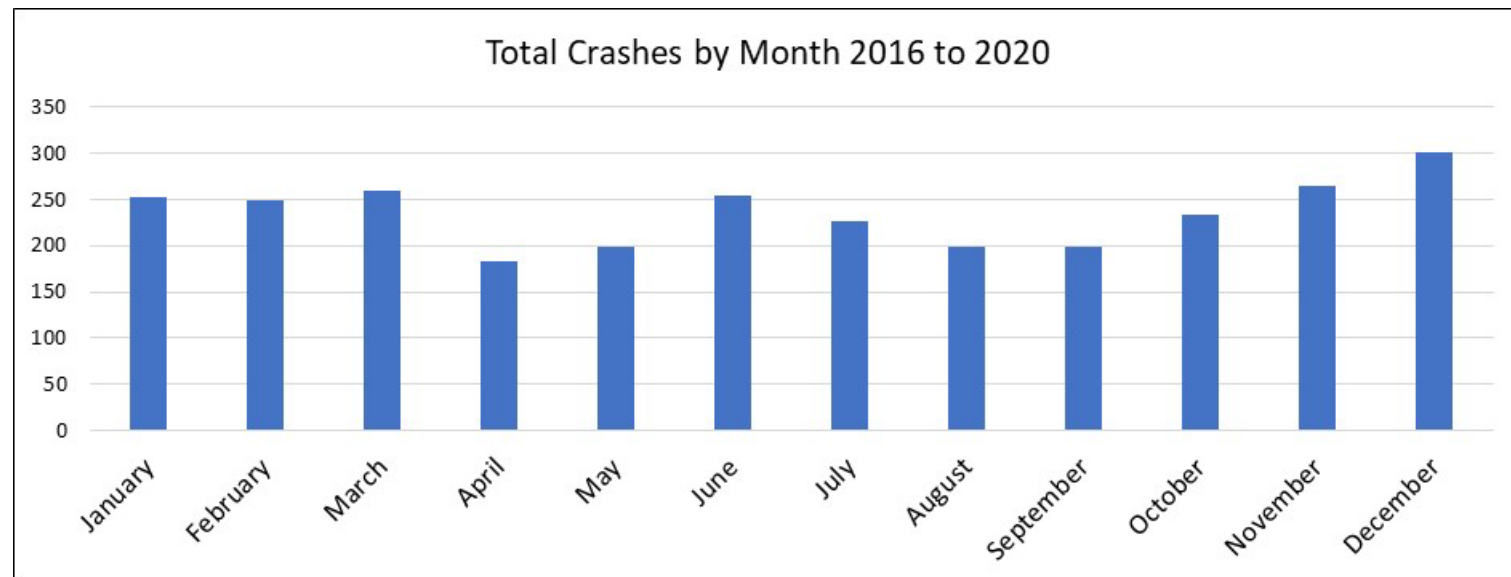
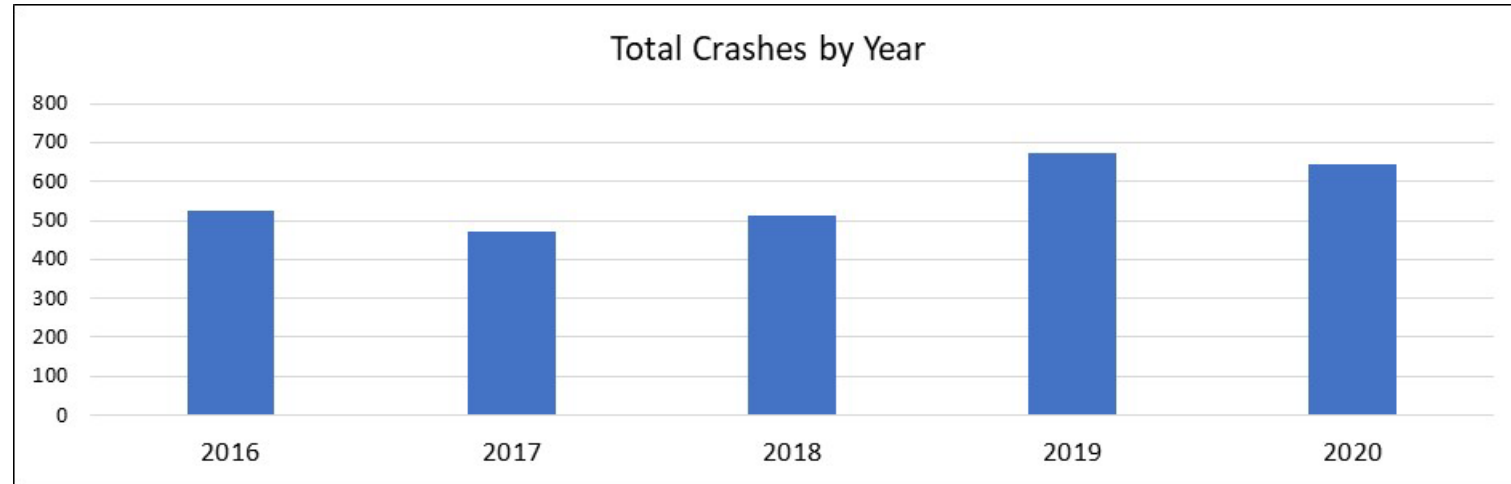


Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty-five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.1. Flows include 42 different commodities represented in FAF.
*State to State flows represent annual Ktons of freight transported by trucks that pass through New Mexico including imports and exports that use New Mexico as the gateway port.



What have we learned? Crashes

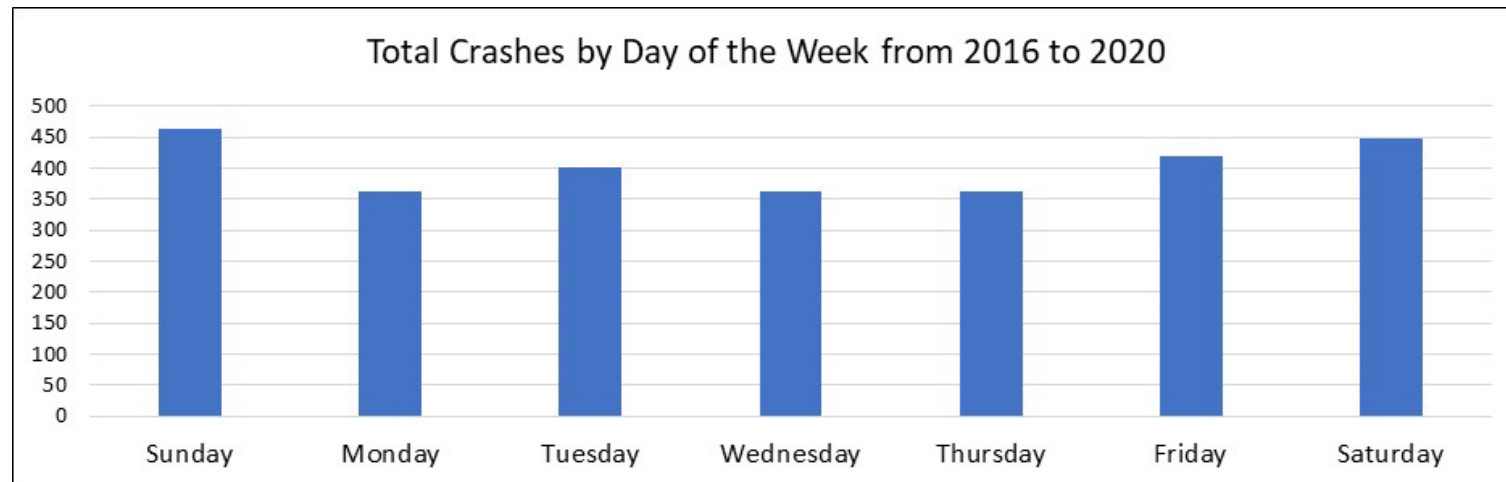
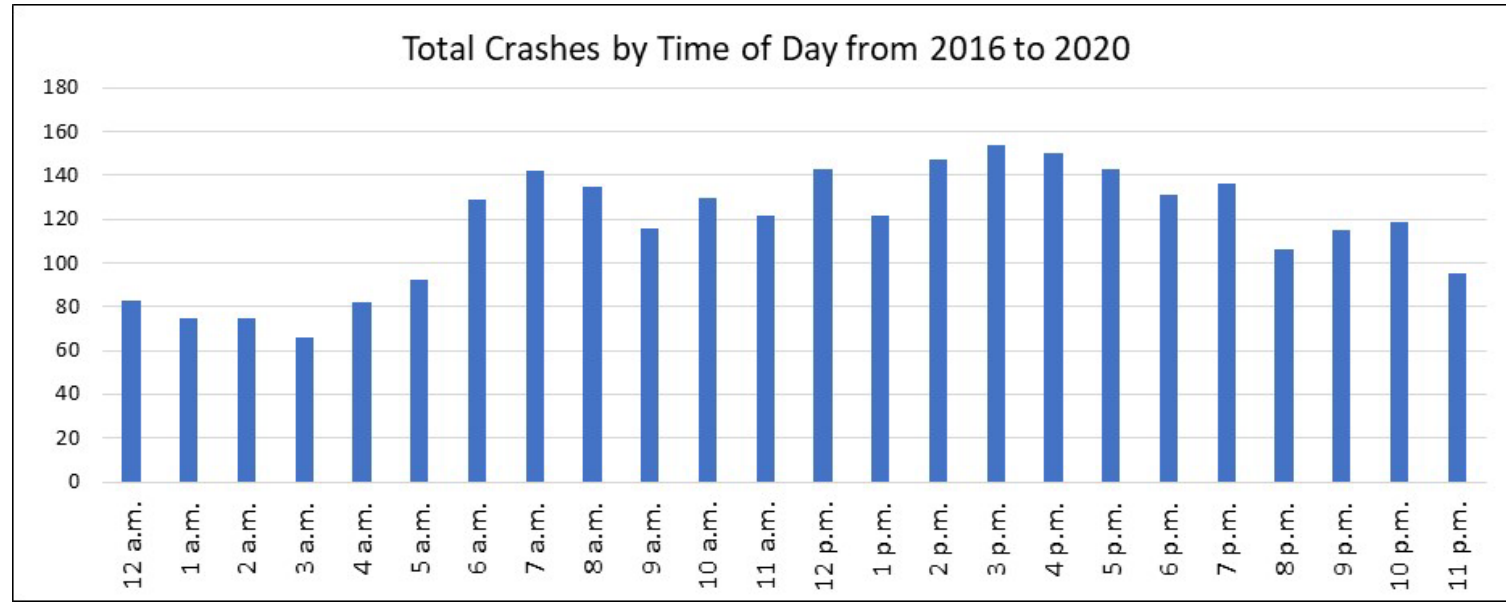
- Crashes have been increasing
- Crashes are higher in the winter months, with a small spike in summer





Crashes: Time of Day and Day of Week

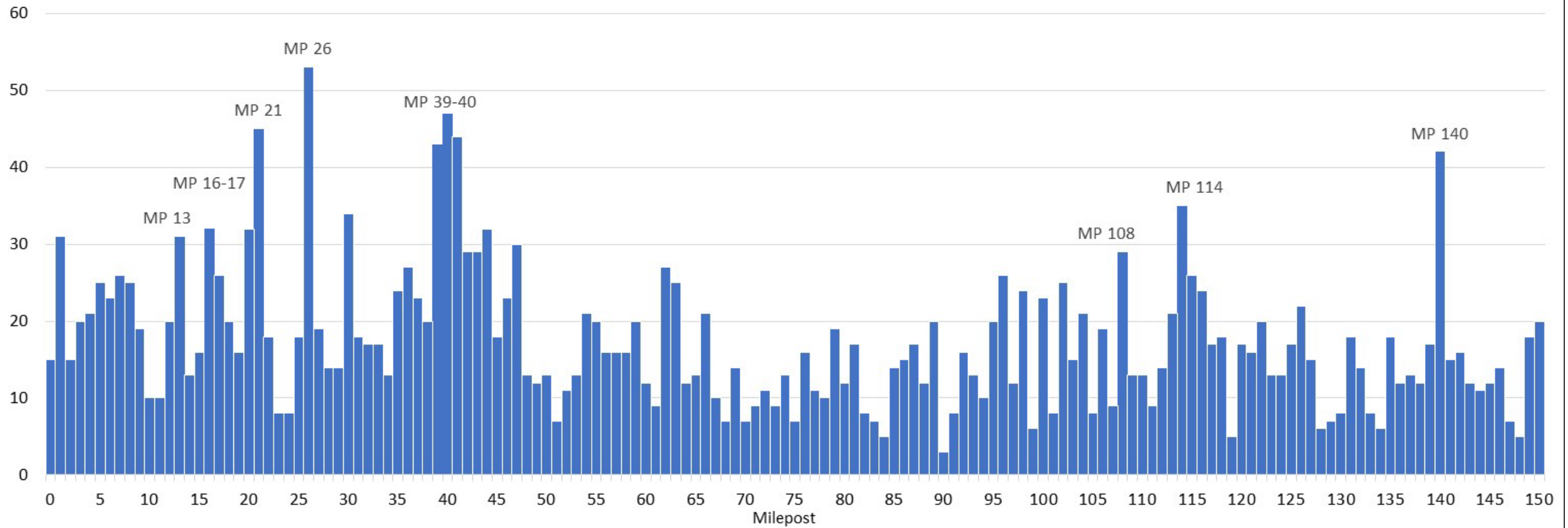
- Time of day has an AM & PM peak but follows a smoother curve than typical urban conditions
- Highest crash frequencies on weekends, this is consistent with higher traffic volumes





Crash Locations

Total Mainline Crashes by Milepost from 2016 to 2020





I-40 Crash Rates from 2016 - 2020

Freeway Type	Location	Fatality Rate (Fatalities / yr/ HMVM ²)		Serious Injury Rate (Serious Injuries/ yr/ HMVM ²)	
		Actual	FHWA Average ¹	Actual	FHWA Average ¹
Rural	Rural I-40	1.66	1.17	1.80	1.70
Urban	Grants Urban Area	1.91	1.10	1.15	3.83
	Gallup Urban Area	1.47	1.10	0.92	3.83

1. NMDOT Highway Safety Improvement Program 2020 Annual report

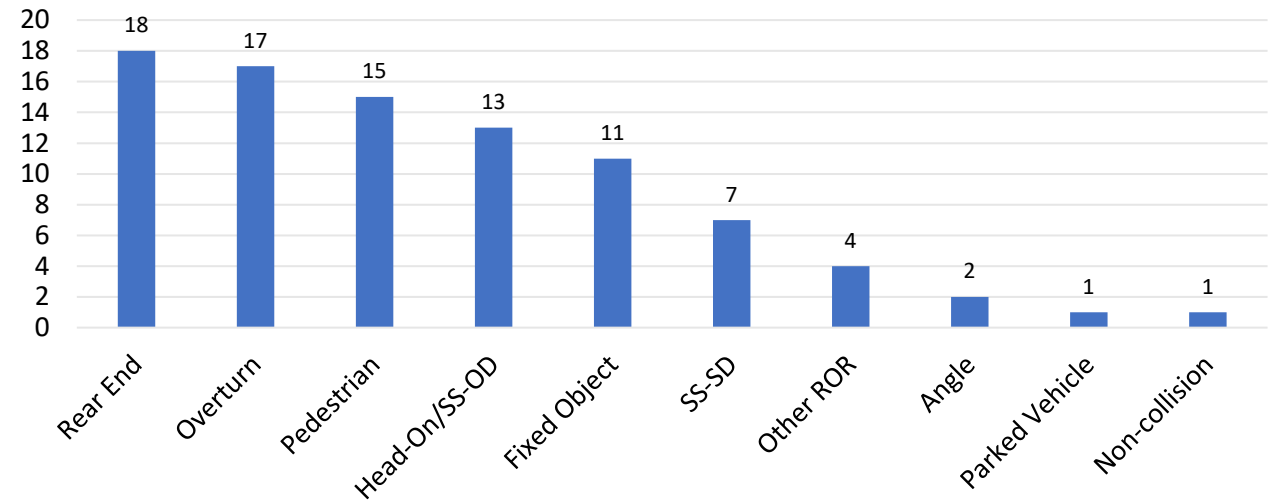
2. Hundred-million vehicle-miles



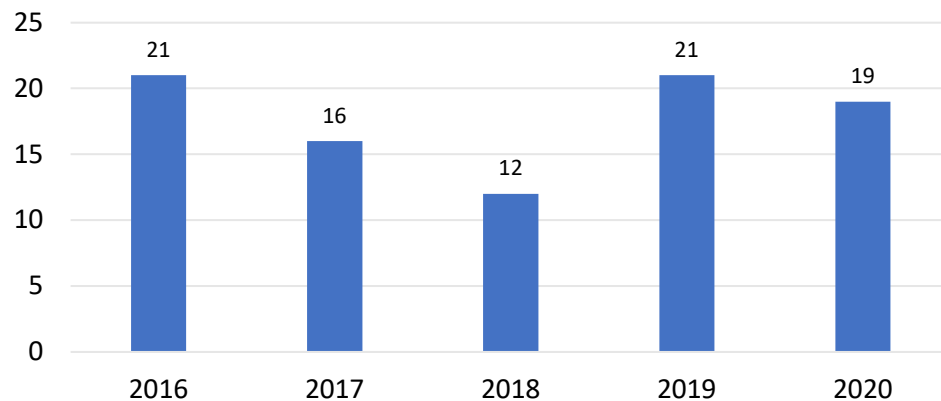
Fatal Crashes from 2016 - 2020

- 89 fatal crashes
- About 18 per year
- 50% involved a heavy vehicle
- 32% involved a DUI
- 17% involved pedestrian

Fatal Crashes by Crash Type



Fatal Crashes by Year

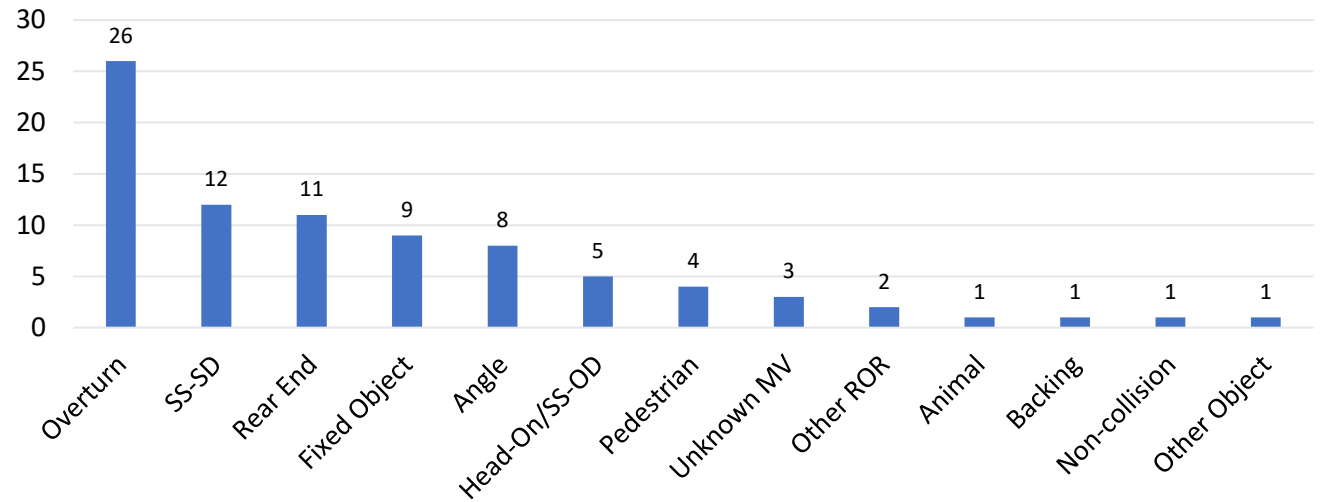




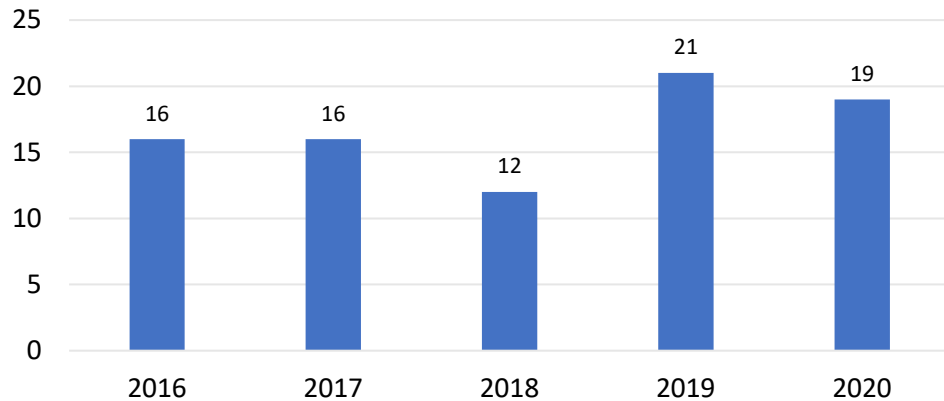
Serious Injury Crashes from 2016 - 2020

- 84 serious injury crashes
- About 17 per year
- 40% involved a heavy vehicle
- 10% involved a DUI

Serious Injury Crashes by Crash Type



Serious Injury Crashes by Year



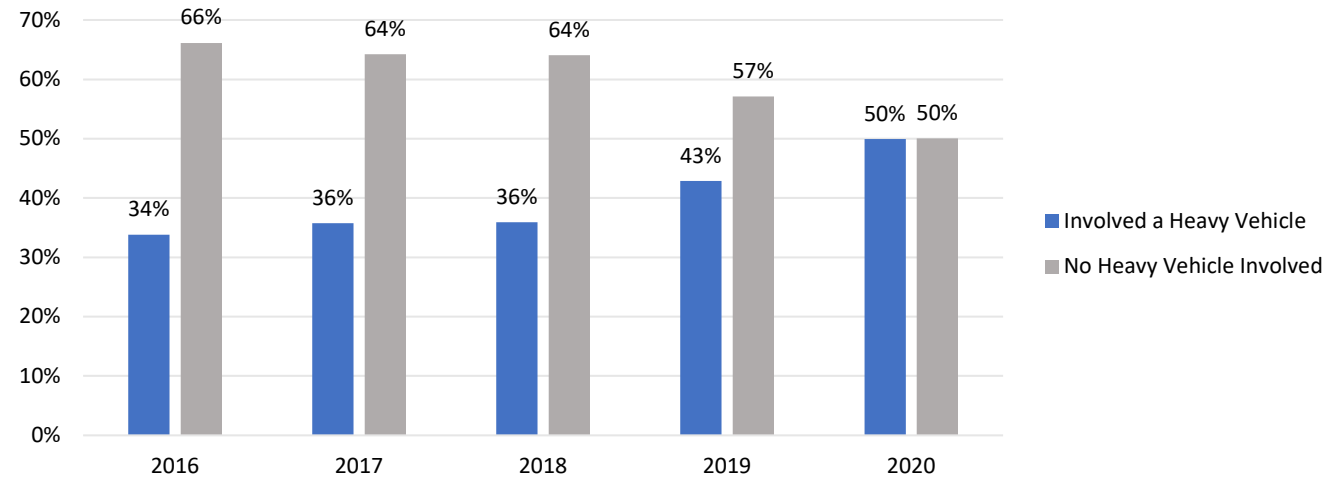


Heavy Vehicle Crashes 2016 - 2020

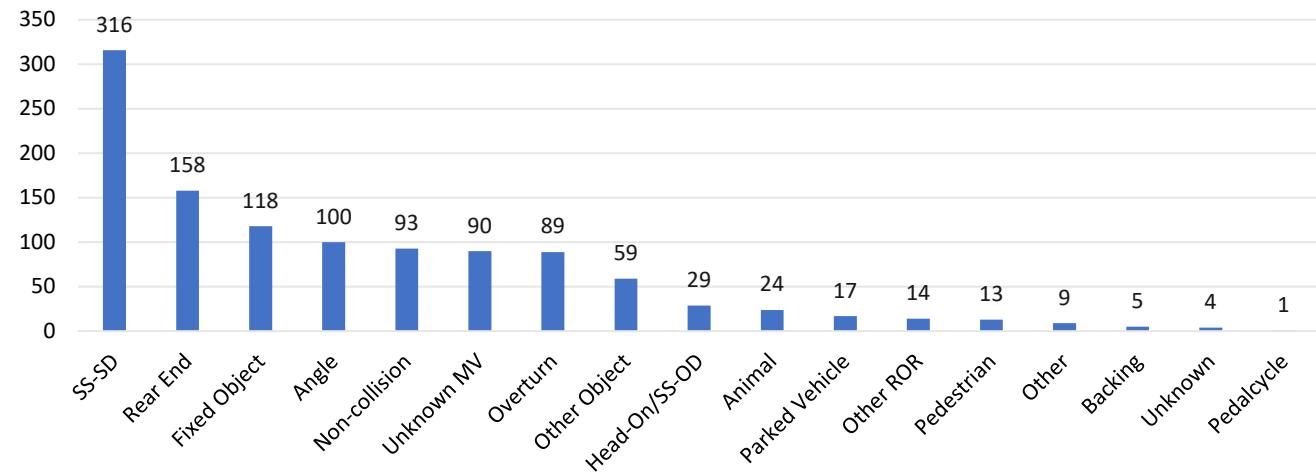
- About 40% of crashes involved a heavy vehicle, similar to % heavy vehicles on the corridor
- Increased heavy vehicle crashes in 2019 & 2020



Crashes Involving Heavy Vehicles



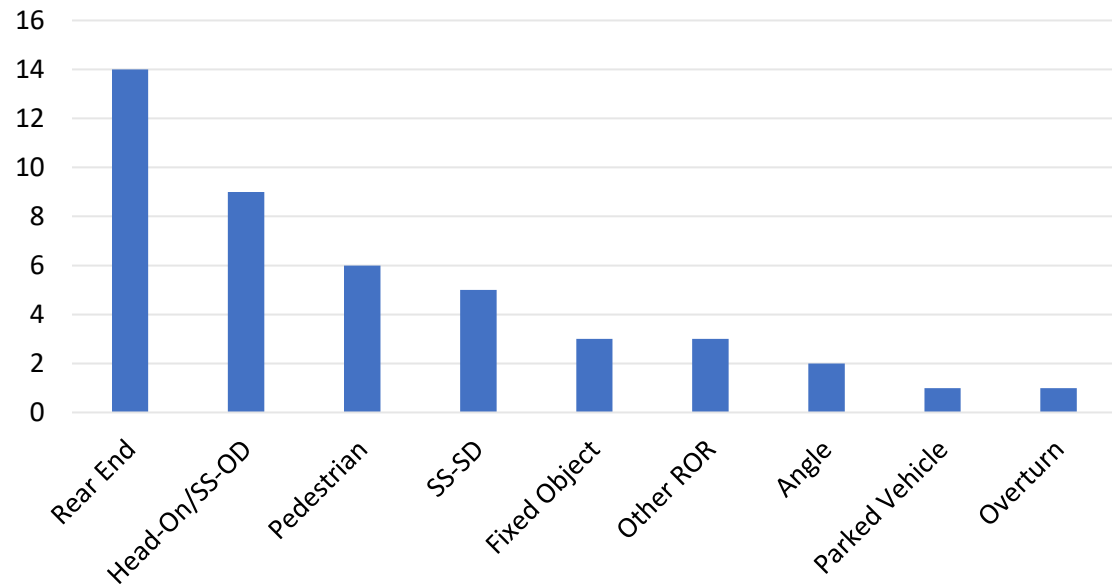
Heavy Vehicle Crashes by Crash Type



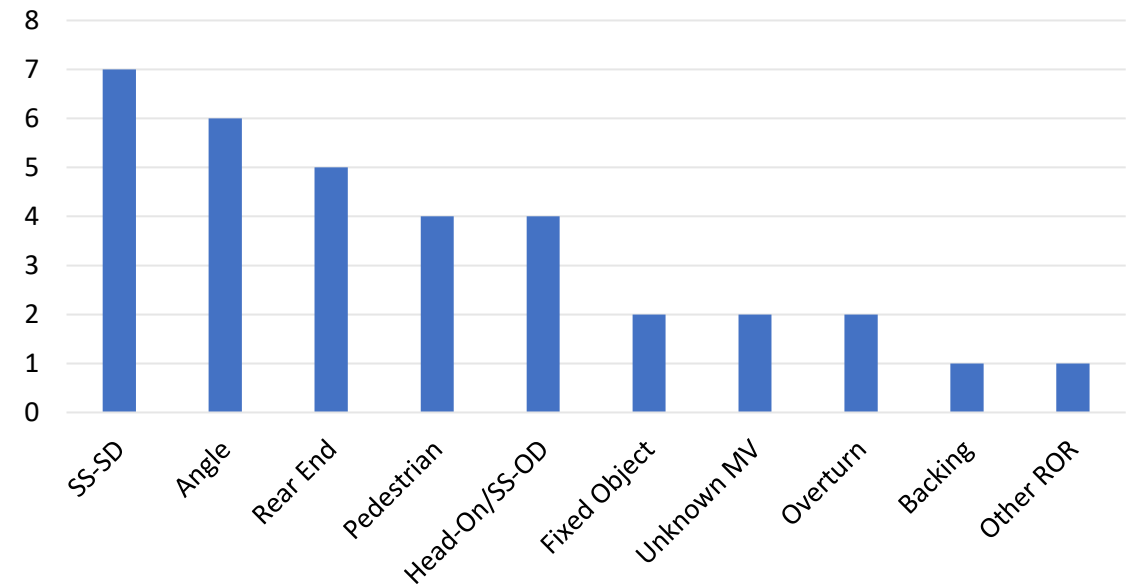


Heavy Vehicle Crashes

Fatal Heavy Vehicle Crashes by Type



Serious Injury Heavy Vehicle Crashes by Type

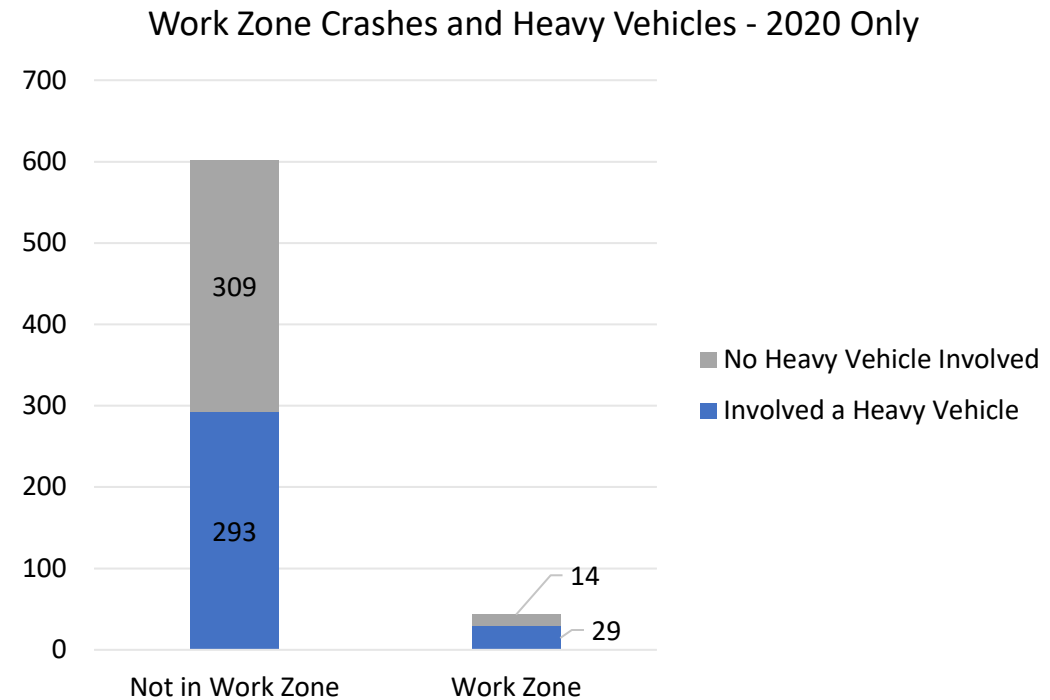


*SS-SD = Side swipe, same direction SS-OD = Side swipe, opposite direction



Crashes: Work Zones

- Work zone data only available for 2020
- 7% of crashes occurred in a work zone
- 2/3 of work zone crashes involved a heavy vehicle





Pedestrian Crashes

- 25 Ped Crashes
- 54% fatal, 16% serious injury
- 52% involved heavy vehicles
- 44% involved alcohol and/or drugs
- Over 80% in non-daylight conditions
 - 76% between 7pm and 7am





What have we learned? Drainage/Bridges

Drainage

- About 600 culverts/drainage structures on I-40
- Known flooding areas near Gallup, Fort Wingate, Twin Bridges west of the Route 66 Casino
- Overtopping along frontage roads

Bridges

- 154 bridges on I-40, there are no major issues, most are in fair or good condition





What have we learned? Alternate Routes/Frontage Roads

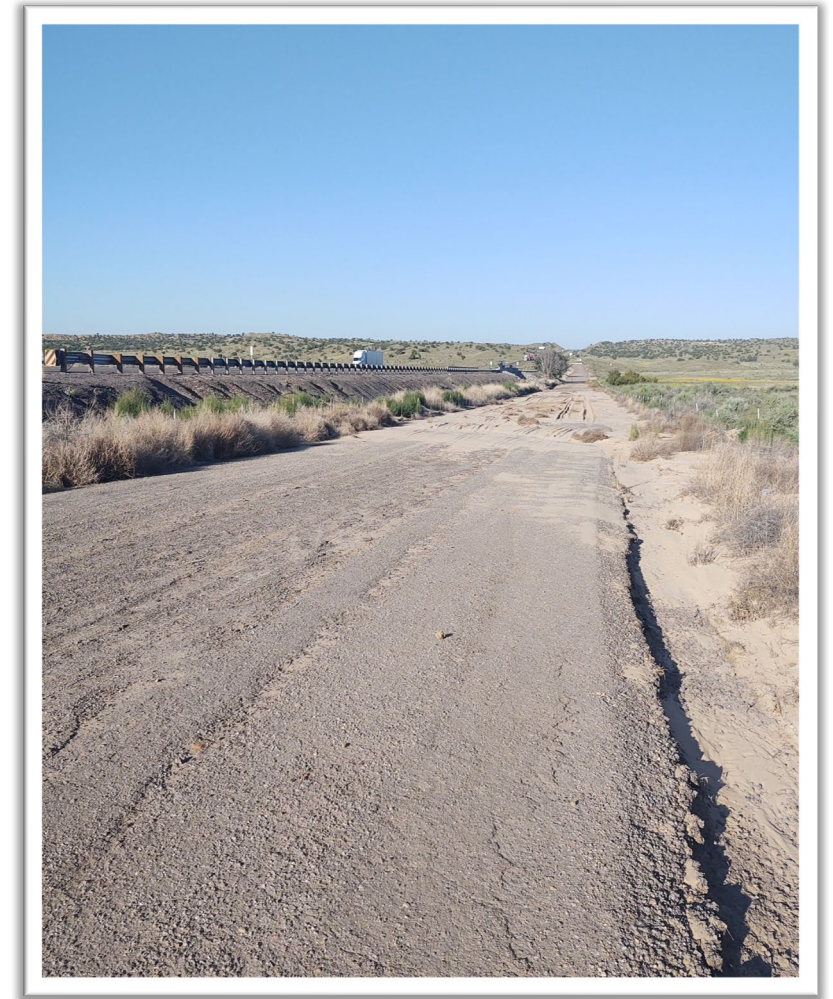




What have we learned? Alternate Routes

Alternate Routes

- 120 miles of alternate routes, No routes at:
 - MP 37 to 47 (10 miles, east of Ft. Wingate)
 - MP 114 to 117 (3 miles, Laguna)
 - MP 119 to 136 (17 miles, between Mesita and Rio Puerco)
- Truck limitations, box culverts with low clearances and narrow widths at:
 - MP 8.4 (west of Grants, near Manuelito)
 - MP 90.6 (near NM 117)
 - MP 142.1 (east of Route 66 Casino)
 - Additional limitations may be identified
- Narrow shoulders, constraints connecting to I-40
- Concerns from neighboring communities
- Flooding
- Areas with poor pavement condition





What have we learned? Work Zone Safety

- Aerial imagery of construction backup extends 1.4 miles
- MP 44 to 47
- March 2016





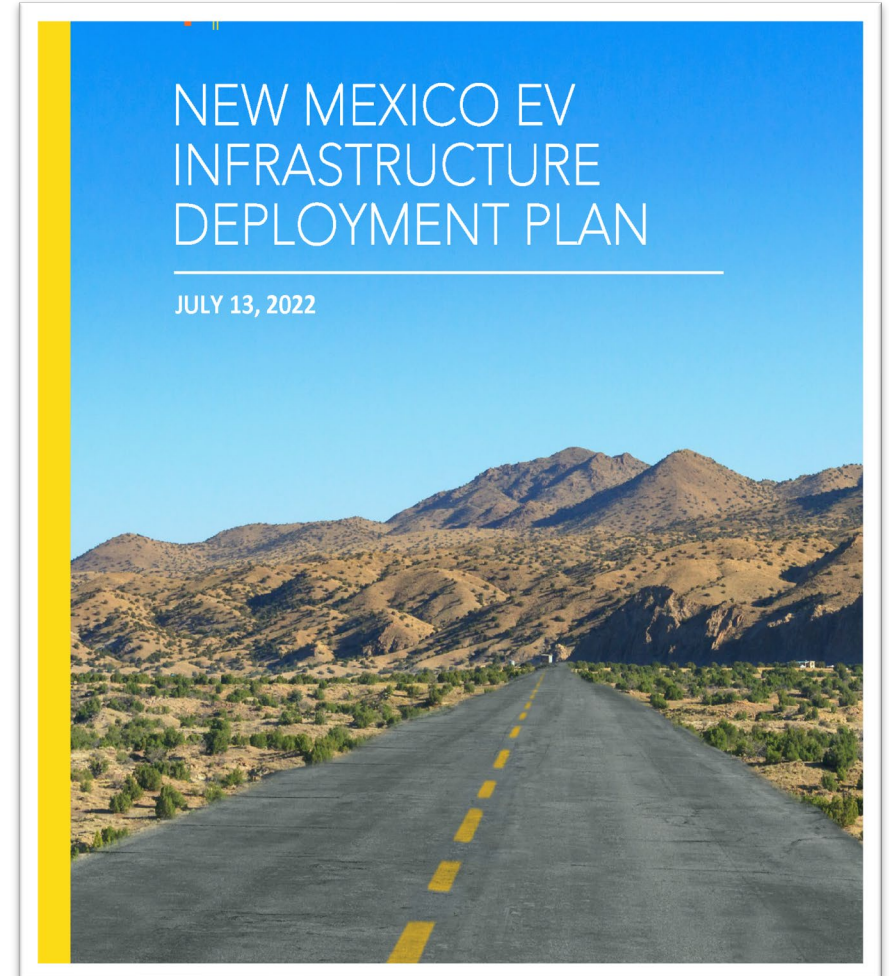
What have we learned? Intelligent Transportation Systems (ITS)

- Cameras (9), weather information systems (2), dynamic messaging signs (5), automated traffic recorders (4)
- Electric vehicle (EV) chargers – (16, 12 in Gallup, 4 in Grants)
- NM Roads/NM 511 – Road Conditions and Closures
- Fiber optic from just west of NM 6 to Albuquerque, then systems connected via cell.



Future ITS Needs

- Existing ITS infrastructure
- Real-time traveler information
- Traffic, incident, and construction zone operations
- New Mexico Broadband Program
- New Mexico Electric Vehicle Infrastructure Deployment Plan
- Autonomous vehicles





What types of alternatives will be developed?

- **I-40 Improvements:** Adding lanes; safety enhancements; interchange improvements, drainage, bridge, and pavement improvements.
- **Frontage Road Improvements:** Improvements to the existing roads, removing constraints for large vehicles, building frontage roads in areas where they are not provided.
- **Construction Zone Approaches:** Concepts to maintain 2-lanes of traffic during construction/maintenance activities.
- **ITS Improvements:** Improvements to the communications network (broadband); incident management systems; electric vehicle charging; autonomous vehicles.



What is the I-40 Corridor Study schedule?

Spring to Fall 2022

- Collect and analyze data

Fall 2022

- Virtual public meeting #1
- Establish need for improvements

Winter 2022/2023

- Identify and screen alternatives

Winter/Spring 2023

- Virtual public meeting #2

Spring 2023

- Refine and evaluate selected alternatives

Summer/Fall 2023

- Identify recommended alternative(s)
- Develop I-40 Improvement Plan
- Virtual Public Meeting #3



How will the public and stakeholders be involved?

- **Public meetings:** 2 additional meetings are planned, in Winter/Spring 2023 to discuss alternatives and Summer/Fall 2023 to discuss recommendations and the proposed I-40 Corridor Improvement Plan.
- **Web information and Updates:** Ongoing
- **Stakeholder coordination and meetings:**
 - Tribes and Bureau of Indian Affairs
 - Transportation Planning Organizations (Mid-Region Council of Governments and the Northwest Regional Transportation Planning Organization)
 - State Patrol and Freight Community
 - Regulatory agencies



How can I submit comments?

Project website at i40nmstudy.com

- Use the website to complete the survey and/or submit written comments
- Check for updates and information on future meetings
- Sign up to receive future meeting invitations

E-mail comments to i40study@parametrix.com

Mail comments to:

I-40 Study

9600 San Mateo Blvd. NE

Albuquerque, NM 87113

Please submit comments by Wednesday, December 14, 2022



How do I ask a question if I called in?

If you are on a phone and want to ask a question:

- Press ***9** to raise your hand and the moderator will call on you to ask a question
- Press ***6** to “unmute” to ask your question
- Please state your name, affiliation (if applicable), and ask your question



How do I ask a question if I am online?

- Ask a question using the Q&A button or verbally,
- To use the Q&A button, select the button, type your question, and hit send.
- To ask your question verbally, please “raise your hand” using the button.
 - The moderator will call on you.
 - You will be prompted to unmute. (If you are on the phone, *6 unmutes)
- Please state your name and ask your question.





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