

DVRPC CMP Focus Roadway Corridor Congestion Analysis

Mean Speed Comparison Summary: February 2020 versus February 2022

The COVID-19 pandemic has continued to alter traffic conditions in the DVRPC region, as well as nationally, making it more challenging to understand evolving travel trends to prioritize improvements and recommend appropriate strategies for managing congestion. Speeds on average are higher compared to pre-pandemic levels; however, reduced speeds exist on some roadways. Uncertainties still remain, such as some commuters that may have taken transit prior to the pandemic may now be for health or other reasons driving to work, leading to more roadway congestion and lower speeds. Alternatively, some workers are working at home that previously commuted to work, resulting in less traffic on the region's roadways. This summary analysis identifies which CMP corridors experienced the lowest speeds in February 2022, and which ones experienced the most decrease in speeds comparing February 2020 (pre-pandemic) to February 2022. Each analysis was performed for both the 7:00-8:00 AM and 5:00-6:00 PM weekday peak hour time periods. It's important to remember that roadways with the lowest speeds are not necessarily an indicator of the longest exposure to congestion. In urban areas speeds may be low, but the trips distances may be shorter so the exposure to congestion might be less compared to more suburban or rural areas. Also, higher speeds may not be as much of a priority in urban areas as improving reliability, compared to interstates, where higher speeds and better mobility are important.

Archived GPS vehicle probe data from the RITIS Probe Data Analytics (PDA) Suite was used to analyze weekly peak hour speeds. **The analysis of speeds during the PM peak indicates that about 59 (11%) of the CMP corridors experienced lower speeds in February 2022 compared to February 2020. However, regionally there were higher speeds in February 2022 compared to 2020 with speeds increasing on average from 35.3 mph in 2020 to 37.0 mph in 2022, or 4.8%.**

The top ten CMP corridors with the lowest speeds in February 2022 and the top ones with the greatest decrease in speeds comparing February 2020 to February 2022 were analyzed separately by state within the DVRPC region. Tables 1 to 4 indicate the CMP corridors with the lowest AM and PM peak hour speeds; Tables 5 to 8 list the CMP corridors with the greatest speed decrease (or delta) and percent change decrease for the DVRPC Pennsylvania counties, and Tables 9 to 12 list the same for the DVRPC New Jersey counties. Figures 1 and 2 show mapping of the February 2020 and 2022 mean speeds, respectively, by CMP corridor, and Figure 3 shows the change in speeds. Additional detailed analysis (see Tables 13 and 14) include all the CMP corridors weekly and monthly mean speeds including change and percent change analyzed separately by state, along with rankings of corridors with the lowest speeds and ones with the most change and percent change decrease. A rank of one indicates the lowest speeds, or the most change or percent change decrease.

Corridors in the DVRPC Pennsylvania counties with the lowest speeds in February 2022 during the peak hours occur all in Philadelphia and top ones include PA 3 (Chestnut Street) from Front Street to 23rd Street, PA 3 (Walnut Street) from Front Street to 23rd Street, Market Street from I-95 (Penn's Landing) to 63rd Street and Broad Street from I-76 to Girard Avenue (see Tables 1 and 2). In the DVRPC New Jersey counties, top locations include NJ 33 from US 1 to CR 622 (Olden Avenue) and US 206 from I-195 to I-295 in Mercer County; and CR 561 from I-676 to CR 689, NJ 168/CR 605 from I-295 to CR 561 (Haddon Avenue), and NJ 168 (Black Horse Pike) from I-295 to NJ 42 in Camden County (see Tables 3 and 4).

Corridors in the DVRPC Pennsylvania counties with significant decreases in speeds comparing February 2020 to February 2022 during the weekday peak hours include I-95 from Academy Road to Frankford Avenue, I-676 (Vine Street Expressway) from I-76 to I-95, and I-76 from I-676 to US 1 (City Avenue) in Philadelphia; I-95 from I-476 to US 322 in Delaware County; I-295/I-95 from Bus 1 (Lincoln Highway) to PA 132 (Street Road) and I-95 from PA 132 (Street Road) to Academy Road in Bucks County; US 30 Bypass from Reeceville Road to PA 10 and PA 100 from South Hanover Street to Nantmead Road in Chester County (see Tables 5 to 8). Corridors in the DVRPC New Jersey counties with significant decreases in speeds during the same peak hours include I-295 from US 130 to NJ 42, I-76 from the Walt Whitman Bridge to I-295, and the NJ Turnpike from Exit 3 to Exit 4 in Camden County; NJ 55 from NJ 42 to NJ 47 in Gloucester County; NJ 42 from the AC Expressway to I-295 in Camden and Gloucester Counties; NJ 31 from I-295 to CR 623 and the NJ Turnpike from Exit 7A to Exit 8 in Mercer County; and the NJ Turnpike from Exit 6 to Exit 7 in Burlington County (See Tables 9 to 12).

**CMP Corridors with the Lowest February 2022 Mean Speeds
Pennsylvania Portion of the DVRPC Region**

Table 1: Top Ten CMP Corridors during the 7:00-8:00 AM Peak Hour

CMP ID	Corridor	Direction	County	2022 ¹	2020
159	PA 3 (Chestnut St) from Front St to Broad St	EB	Philadelphia	10.0	9.1
160	PA 3 (Chestnut St) from Broad St to 23rd St	EB	Philadelphia	10.2	8.8
163	PA 3 (Walnut St) from Broad St to 23rd St	WB	Philadelphia	11.6	11.7
162	PA 3 (Walnut St) from Front St to Broad St	WB	Philadelphia	11.7	10.7
158	Broad St from I-76 to Washington Ave	NB	Philadelphia	12.5	12.6
078	Market St from I-95 (Penn's Landing) to Broad St	WB	Philadelphia	12.6	11.0
099	Broad St from Washington Ave to Girard Ave	NB	Philadelphia	13.2	12.1
079	Market St from Broad St to 63rd St	EB	Philadelphia	14.1	14.1
078	Market St from I-95 (Penn's Landing) to Broad St	EB	Philadelphia	14.5	12.6
158	Broad St from I-76 to Washington Ave	SB	Philadelphia	14.6	13.6

Table 2: Top Ten CMP Corridors during the 5:00-6:00 PM Peak Hour

CMP ID	Corridor	Direction	County	2022 ¹	2020
160	PA 3 (Chestnut St) from Broad St to 23rd St	EB	Philadelphia	8.5	7.6
159	PA 3 (Chestnut St) from Front St to Broad St	EB	Philadelphia	8.6	7.2
163	PA 3 (Walnut St) from Broad St to 23rd St	WB	Philadelphia	9.1	7.6
162	PA 3 (Walnut St) from Front St to Broad St	WB	Philadelphia	10.7	8.9
078	Market St from I-95 (Penn's Landing) to Broad St	EB	Philadelphia	11.1	8.6
079	Market St from Broad St to 63rd St	WB	Philadelphia	11.5	11.9
099	Broad St from Washington Ave to Girard Ave	SB	Philadelphia	11.5	10.3
158	Broad St from I-76 to Washington Ave	NB	Philadelphia	11.9	12.4
161	PA 3 (Chestnut St) from 23rd St to 44th St	EB	Philadelphia	11.9	9.1
078*	Market St from I-95 (Penn's Landing) to Broad St	WB	Philadelphia	12.1	8.2

New Jersey Portion of the DVRPC Region

Table 3: Top Ten CMP Corridors during the 7:00-8:00 AM Peak Hour

CMP ID	Corridor	Direction	County	2022 ¹	2020
249	NJ 33 from US 1 to CR 622 (Olden Ave)	WB	Mercer	18.2	17.7
249	NJ 33 from US 1 to CR 622 (Olden Ave)	EB	Mercer	18.6	17.8
283	CR 561 from I-676 to I-295	SB	Camden	20.3	18.6
219	US 206 from I-195 to I-295	SB	Mercer	20.9	19.7
283	CR 561 from I-676 to I-295	NB	Camden	20.9	19.0
219	US 206 from I-195 to I-295	NB	Mercer	21.6	20.3
282	CR 561 from I-295 to CR 689	SB	Camden	21.8	20.4
307	CR 622 (Olden Ave) from I-295 to NJ 31	WB	Mercer	21.9	22.5
244	NJ 31 from US 206 to CR 622 (Olden Ave)	NB	Mercer	22.1	19.1
285	NJ 41 from NJ 42 to US 30	NB	Camden, Gloucester	22.3	18.0

Table 4: Top Ten CMP Corridors during the 5:00-6:00 PM Peak Hour

CMP ID	Corridor	Direction	County	2022 ¹	2020
249	NJ 33 from US 1 to CR 622 (Olden Ave)	EB	Mercer	16.4	15.3
283	CR 561 from I-676 to I-295	SB	Camden	17.1	16.2
283	CR 561 from I-676 to I-295	NB	Camden	17.2	16.7
249	NJ 33 from US 1 to CR 622 (Olden Ave)	WB	Mercer	17.4	16.4
297	NJ 168/CR 605 from I-295 to CR 561 (Haddon Av)	SB	Camden	17.4	16.1
282	CR 561 from I-295 to CR 689	SB	Camden	17.8	15.7
212	NJ 168 (Black Horse Pk) from I-295 to NJ 42	SB	Camden	18.2	17.4
290	CR 673 (White Horse Rd) from CR 561 to CR 534	SB	Camden	18.4	15.7
307	CR 622 (Olden Ave) from I-295 to NJ 31	EB	Mercer	18.4	17.4
295	NJ 41 (Kings Hwy)/CR 551 from NJ 70 to US 30	WB	Camden	18.8	16.1

*Top tenth CMP corridor tied with other corridors, please see Table 14 for the remaining list of corridors

CMP ID highlighted in blue indicates a corridor that is in both the 7:00-8:00 AM and 5:00-6:00 PM peak hour top ten lists

¹ Sorted from low to high by 2022 speeds where lower speeds may indicate more congestion

February 2020 vs 2022 Speed Comparison: Pennsylvania Portion of the DVRPC Region 7:00-8:00 AM Peak Hour

Table 5: Top Ten CMP Corridors with the Greatest Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta ²	% Change
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	NB	Philadelphia	-9.8	-16.6
019	I-76 from US 1 (City Ave) to I-476	EB	Montgomery	-8.9	-22.7
025	I-95 from PA 63 to Academy Rd	SB	Bucks	-7.7	-11.6
027	I-95 from PA 90 to Frankford Ave	NB	Philadelphia	-7.0	-11.8
117	I-676 (Vine Street Expy) from I-76 to I-95	WB	Philadelphia	-5.2	-19.5
143	US 30 Bypass from Reeceville Rd to PA 10	EB	Chester	-4.7	-7.4
143	US 30 Bypass from Reeceville Rd to PA 10	WB	Chester	-4.2	-6.5
114	PA 100 from S. Hanover St to Nantmead Rd	NB	Chester	-3.9	-8.9
001	I-76 Turnpike from PA 29 to I-76 (Valley Forge)	EB	Chester	-3.8	-5.3
018*	I-76 from US 30 (Girard Ave) to US 1 (City Ave)	EB	Philadelphia	-3.6	-13.8

Table 6: Top Ten CMP Corridors with the Greatest Percent Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta	% Change ³
019	I-76 from US 1 (City Ave) to I-476	EB	Montgomery	-8.9	-22.7
117	I-676 (Vine Street Expy) from I-76 to I-95	WB	Philadelphia	-5.2	-19.5
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	NB	Philadelphia	-9.8	-16.6
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	SB	Philadelphia	-3.4	-13.8
018	I-76 from US 30 (Girard Ave) to US 1 (City Ave)	EB	Philadelphia	-3.6	-13.8
027	I-95 from PA 90 to Frankford Ave	NB	Philadelphia	-7.0	-11.8
025	I-95 from PA 63 to Academy Rd	SB	Bucks	-7.7	-11.6
041	US 1 from I-76 to PA 611	SB	Philadelphia	-3.2	-11.5
035	US 1 from US 202 to US 322	SB	Delaware	-3.3	-10.4
140	US 322 from PA 82 to US 30 Business	EB	Chester	-2.8	-10.3

CMP ID highlighted in blue indicates a corridor that is in both top ten lists for absolute and percent change in speeds for the 7:00-8:00 AM peak hour

5:00-6:00 PM Peak Hour

Table 7: Top Ten CMP Corridors with the Greatest Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta ²	% Change
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	NB	Philadelphia	-12.2	-22.2
031	I-95 from I-476 to US 322	SB	Delaware	-11.5	-29.9
017	I-76 from I-676 (Vine Street Expy) to US 30	WB	Philadelphia	-10.9	-30.8
027	I-95 from PA 90 to Frankford Ave	NB	Philadelphia	-10.2	-29.1
023	I-295/I-95 from Bus 1 (Lincoln Hwy) to PA 132	SB	Bucks	-9.7	-15.4
024	I-95 from PA 132 (Street Rd) to PA 63	NB	Bucks	-9.4	-14.4
117	I-676 (Vine Street Expy) from I-76 to I-95	WB	Philadelphia	-8.9	-36.5
025	I-95 from PA 63 to Academy Rd	SB	Bucks	-8.2	-18.7
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	SB	Philadelphia	-6.7	-18.4
032	I-95 from US 322 to PA-DE State Line	SB	Delaware	-6.6	-11.4

Table 8: Top Ten CMP Corridors with the Greatest Percent Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta	% Change ³
117	I-676 (Vine Street Expy) from I-76 to I-95	WB	Philadelphia	-8.9	-36.5
017	I-76 from I-676 (Vine Street Expy) to US 30	WB	Philadelphia	-10.9	-30.8
031	I-95 from I-476 to US 322	SB	Delaware	-11.5	-29.9
027	I-95 from PA 90 to Frankford Ave	NB	Philadelphia	-10.2	-29.1
041	US 1 from I-76 to PA 611	NB	Philadelphia	-6.1	-25.8
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	NB	Philadelphia	-12.2	-22.2
018	I-76 from US 30 (Girard Ave) to US 1 (City Ave)	WB	Philadelphia	-5.2	-19.5
025	I-95 from PA 63 to Academy Rd	SB	Bucks	-8.2	-18.7
013	I-476 from US 1 to Baltimore Pk (Swarthmore)	SB	Delaware	-5.9	-18.5
026	I-95 from Academy Rd to PA 90 (Betsy Ross Br)	SB	Philadelphia	-6.7	-18.4

** Top tenth CMP corridor tied with other corridors, please see Table 13 for the remaining list of corridors*

CMP ID highlighted in blue indicates a corridor that is in both top ten lists for absolute and percent change in speeds for the 5:00-6:00 PM peak hour

² Sorted from low to high by mean speed absolute change (or delta)

³ Sorted from low to high by percent change

**February 2020 vs 2022 Speed Comparison: New Jersey Portion of the DVRPC Region
7:00-8:00 AM Peak Hour**

Table 9: Top Ten CMP Corridors with the Greatest Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta ²	% Change
207	I-295 from US 130 to NJ 42	SB	Camden	-12.4	-19.2
207	I-295 from US 130 to NJ 42	NB	Camden	-11.6	-19.7
205	NJ Turnpike from Exit 3 to Exit 4	NB	Camden	-9.6	-13.4
202	NJ Turnpike from Exit 7A to Exit 8	SB	Mercer	-6.9	-9.6
202	NJ Turnpike from Exit 7A to Exit 8	NB	Mercer	-3.5	-4.8
243	NJ 29 from Cass St to CR 579	SB	Mercer	-3.1	-5.9
201	NJ Turnpike from Exit 6 to Exit 7	NB	Burlington	-3.1	-4.3
200	NJ Turnpike from Exit 5 to Exit 6	SB	Burlington	-2.9	-4.0
210	AC Expy from Williamstown Rd to NJ 42	EB	Camden, Gloucester	-2.9	-4.0
204	NJ Turnpike from Exit 2 to Exit 3	SB	Gloucester	-2.9	-4.0

Table 10: Top Ten CMP Corridors with the Greatest Percent Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta	% Change ³
207	I-295 from US 130 to NJ 42	NB	Camden	-11.6	-19.7
207	I-295 from US 130 to NJ 42	SB	Camden	-12.4	-19.2
205	NJ Turnpike from Exit 3 to Exit 4	NB	Camden	-9.6	-13.4
202	NJ Turnpike from Exit 7A to Exit 8	SB	Mercer	-6.9	-9.6
247	NJ 31 from I-295 to CR 623	NB	Mercer	-2.3	-6.5
269	NJ 70 from NJ 73 to Eayrestown Rd	EB	Burlington	-2.5	-6.2
243	NJ 29 from Cass St to CR 579 (Sullivan Way)	SB	Mercer	-3.1	-5.9
248	NJ 31 from CR 623 to CR 518	NB	Mercer	-2.4	-5.6
240	US 322 from I-295 to NJ Turnpike	WB	Gloucester	-2.1	-5.4
202	NJ Turnpike from Exit 7A to Exit 8	NB	Mercer	-3.5	-4.8

CMP ID highlighted in blue indicates a corridor that is in both top ten lists for absolute and percent change in speeds for the 7:00-8:00 AM peak hour

5:00-6:00 PM Peak Hour

Table 11: Top Ten CMP Corridors with the Greatest Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta ²	% Change
207	I-295 from US 130 to NJ 42	SB	Camden	-20.1	-31.3
207	I-295 from US 130 to NJ 42	NB	Camden	-9.5	-15.6
258	NJ 55 from NJ 42 to NJ 47	NB	Gloucester	-5.5	-14.5
211	NJ 42 from AC Expressway to I-295	SB	Camden, Gloucester	-3.7	-7.1
201	NJ Turnpike from Exit 6 to Exit 7	NB	Burlington	-3.0	-4.1
247	NJ 31 from I-295 to CR 623	SB	Mercer	-2.9	-8.4
200	NJ Turnpike from Exit 5 to Exit 6	NB	Burlington	-2.7	-3.7
202	NJ Turnpike from Exit 7A to Exit 8	SB	Mercer	-2.6	-3.6
259	NJ 55 from NJ 47 to US 322	SB	Gloucester	-2.6	-3.7
267*	NJ 70 from NJ 38 to I-295	WB	Camden	-2.6	-8.0

Table 12: Top Ten CMP Corridors with the Greatest Percent Change Decrease in Speeds

CMP ID	Corridor	Direction	County	Delta	% Change ³
207	I-295 from US 130 to NJ 42	SB	Camden	-20.1	-31.3
207	I-295 from US 130 to NJ 42	NB	Camden	-9.5	-15.6
258	NJ 55 from NJ 42 to NJ 47	NB	Gloucester	-5.5	-14.5
247	NJ 31 from I-295 to CR 623	SB	Mercer	-2.9	-8.4
228	I-76 from Walt Whitman Bridge to I-295	EB	Camden	-2.4	-8.2
267	NJ 70 from NJ 38 to I-295	WB	Camden	-2.6	-8.0
211	NJ 42 from AC Expressway to I-295	SB	Camden, Gloucester	-3.7	-7.1
291	CR 534 from NJ 42 to CR 686 (Gibbsboro Rd)	EB	Camden	-1.7	-5.9
241	US 322 from NJ Turnpike to NJ 55	WB	Gloucester	-2.1	-5.6
208	I-295 from NJ 42 to NJ 70	SB	Camden	-1.7	-5.3

CMP ID highlighted in blue indicates a corridor that is in both top ten lists for absolute and percent change in speeds for the 5:00-6:00 PM peak hour

* Top tenth CMP corridor tied; please see Table 14 for the remaining list of corridors

Data Source: University of Maryland CATT Lab RITIS-PDA Suite. DVRPC GIS web mapping is available [here](#) to identify the location of the CMP corridors. Select the CMP Focus Roadway Facilities tab to access the CMP corridors. If you have a RITIS-PDA Suite login, the CMP corridors can be accessed using the PDA analysis tools that provide access to the segment sets. In the Display Options button, type "CMP TMC" to get a list of the CMP corridor segment sets.