SYSTEM RELIABILITY & FREIGHT MOVEMENT PERFORMANCE MEASURES

2024

Flint Hills MPO

FHWA'S **3** SYSTEM RELIABILITY & FREIGHT MOVEMENT PERFORMANCE MEASURES

Data Source: RITIS

1. Interstate Travel Time Reliability Measure (TTRM):
   % of person-miles traveled on the Interstate that are reliable (LOTTR)

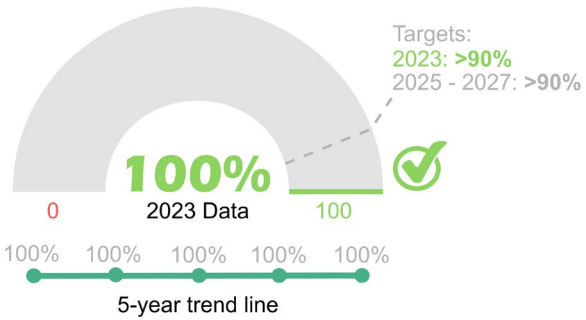
2. Non-Interstate Travel Time Reliability Measure (NTTRM):
   % of person-miles traveled on the Non-Interstate NHS that are reliable (LOTTR)

Data Source: RITIS

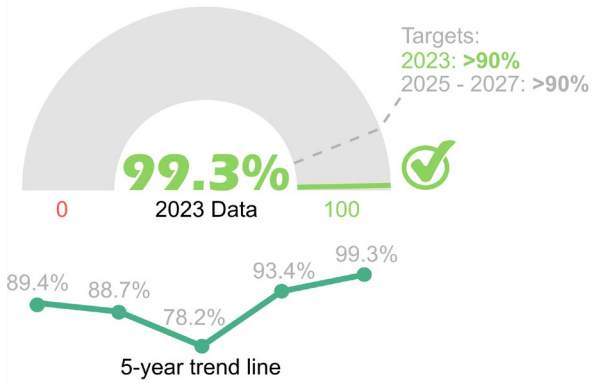
3. Interstate Freight Reliability Measure:
   Truck Travel Time Reliability (TTTR) Index

SYSTEM RELIABILITY & FREIGHT MOVEMENT: **SUMMARY**

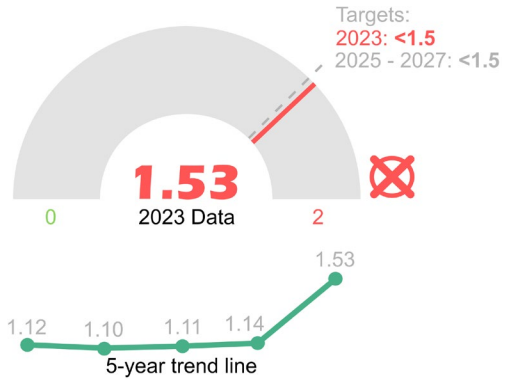
PM 1: % of Person-Miles Traveled on Interstate with Reliable Travel Time



PM 2: % of Person-Miles Traveled on the NHS with a Reliable Travel Time



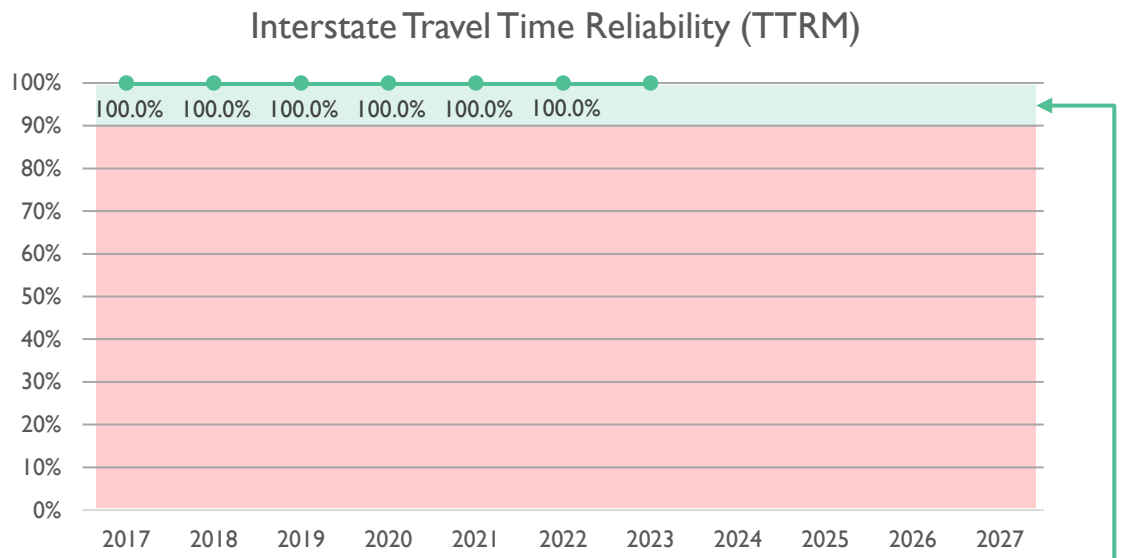
PM 3: Truck Travel Time Reliability (TTTR) Index on our Interstate System



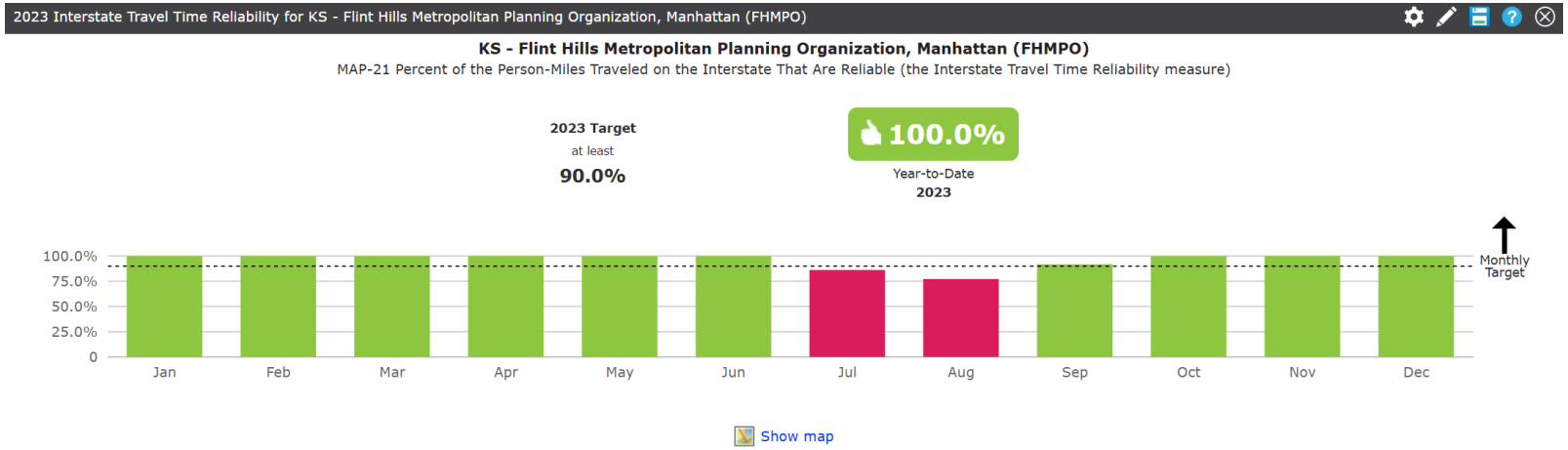
TARGET 1: INTERSTATE TRAVEL TIME RELIABILITY MEASURE (TTRM)

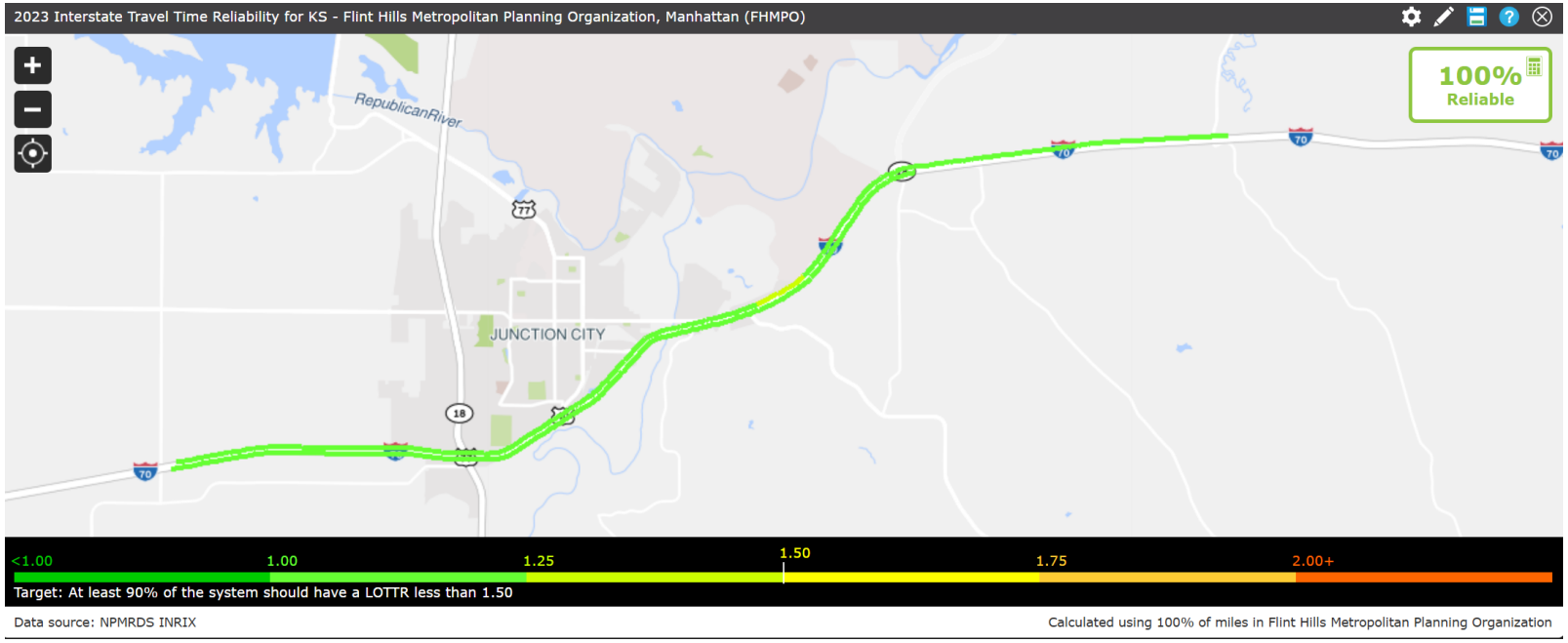
Year	TTRM	Target
2017	100.0%	>90%
2018	100.0%	>90%
2019	100.0%	>90%
2020	100.0%	>90%
2021	100.0%	>90%
2022	100.0%	>90%
2023	100.0%	>90%
2024		>90%
2025		>90%
2026		>90%
2027		>90%

On Target



TARGET 1: INTERSTATE TRAVEL TIME RELIABILITY MEASURE (TTRM)

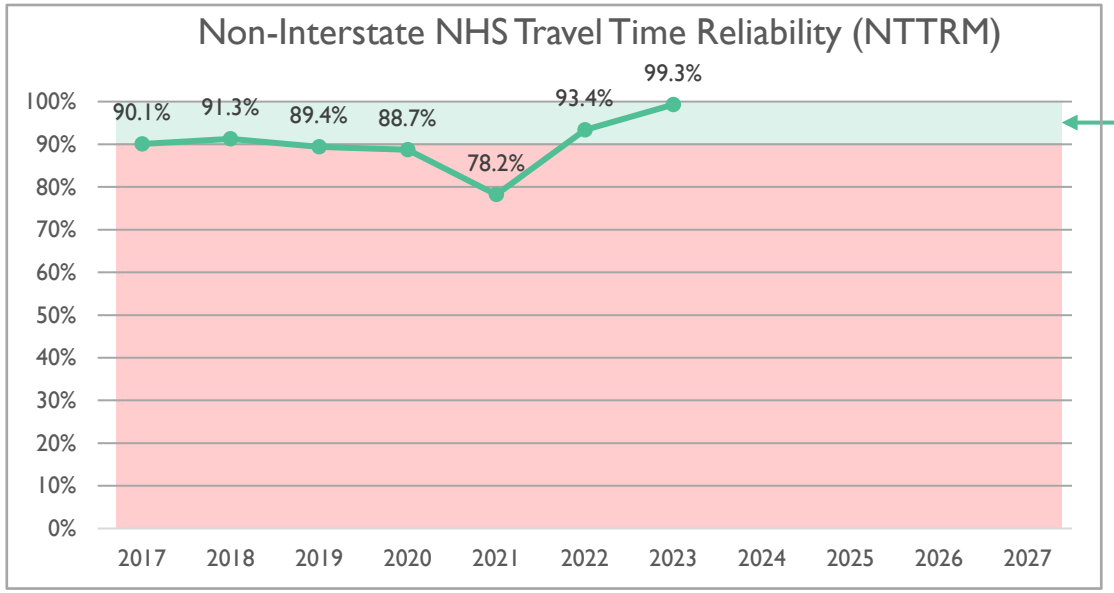




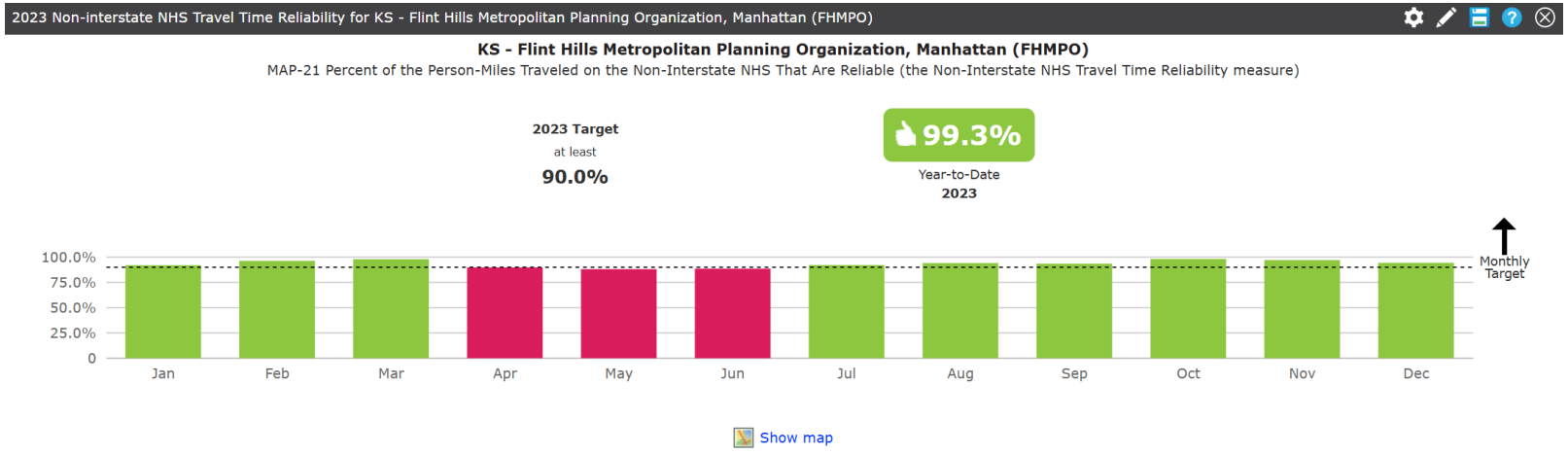
TARGET 2: NON-INTERSTATE TRAVEL TIME RELIABILITY MEASURE (NTTRM)

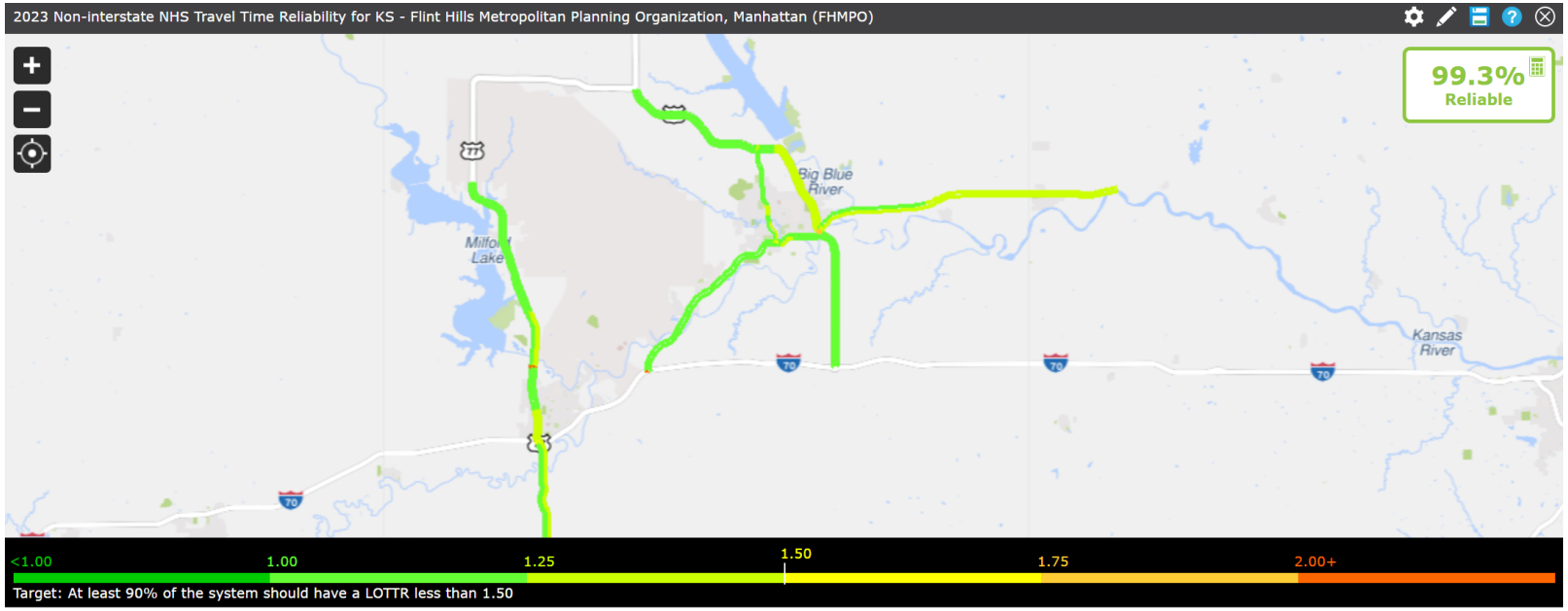
Year	NTTRM	Target
2017	90.1%	>90%
2018	91.3%	>90%
2019	89.4%	>90%
2020	88.7%	>90%
2021	78.2%	>90%
2022	93.40%	>90%
2023	99.30%	>90%
2024		>90%
2025		>90%
2026		>90%
2027		>90%

On Target



TARGET 2: NON-INTERSTATE TRAVEL TIME RELIABILITY MEASURE (NTTRM)





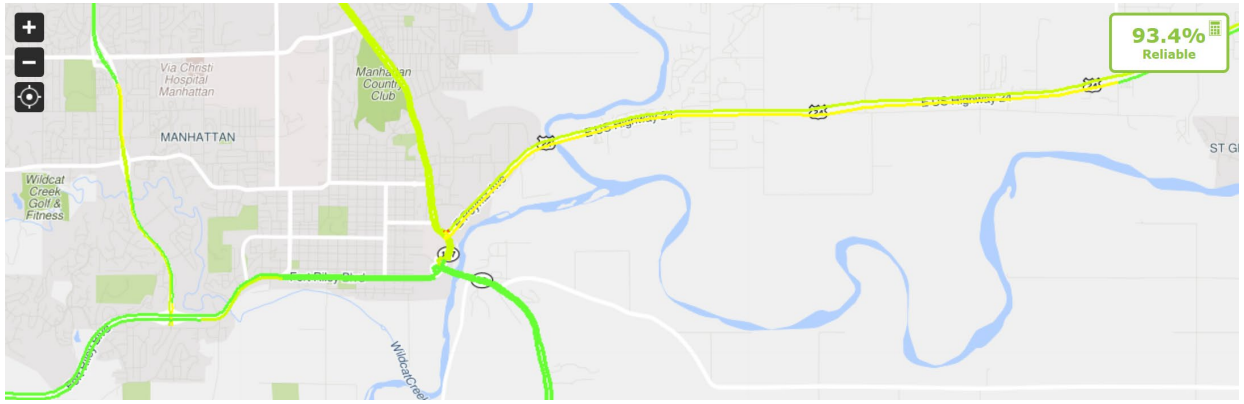
TARGET 2: CONSTRUCTION IMPACTS

2021

K-18: Wildcat Creek Bridges

US-24: GVR intersection & turn lanes

2022



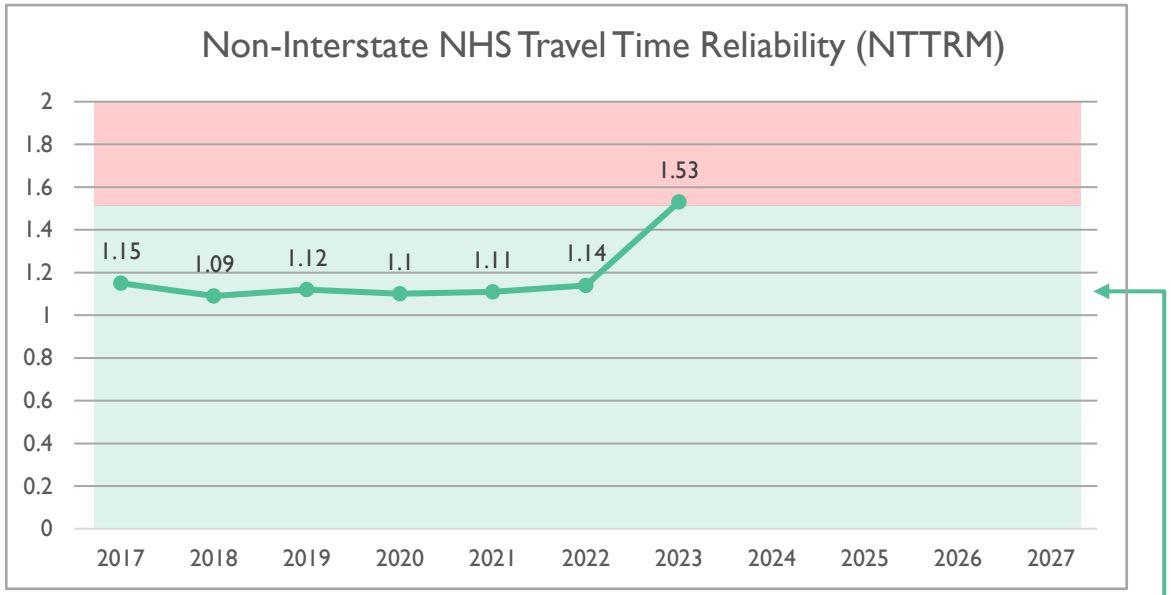
US-24: GVR intersection & turn lanes (portion of year)

2023

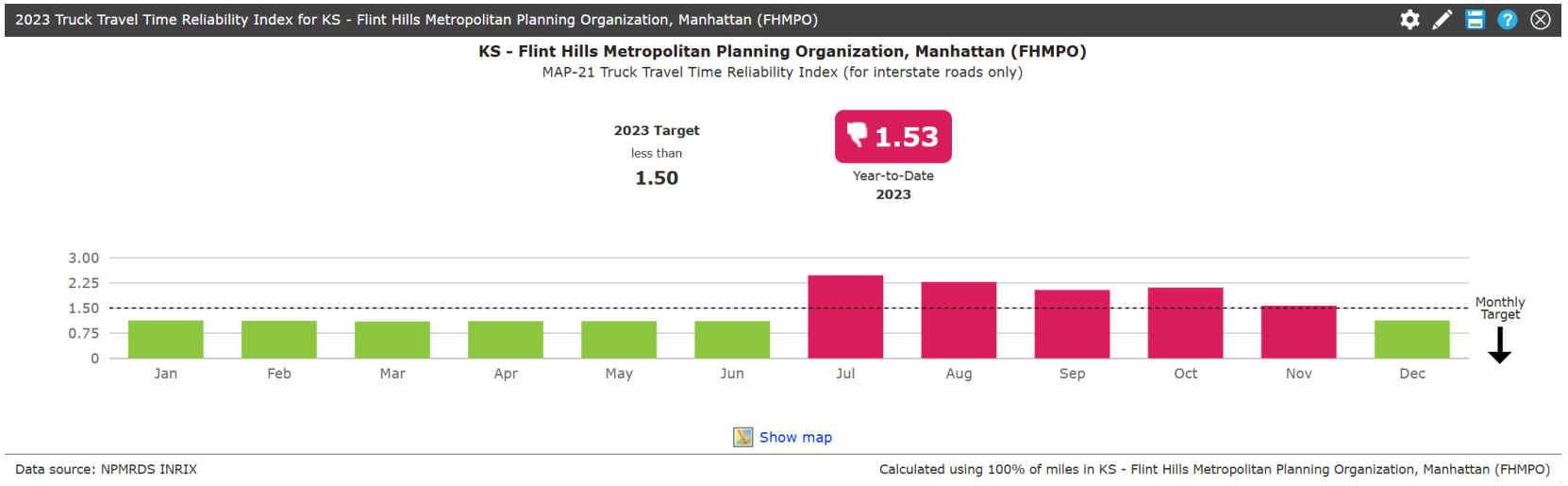
TARGET 3: INTERSTATE FREIGHT RELIABILITY MEASURE (TTTR)

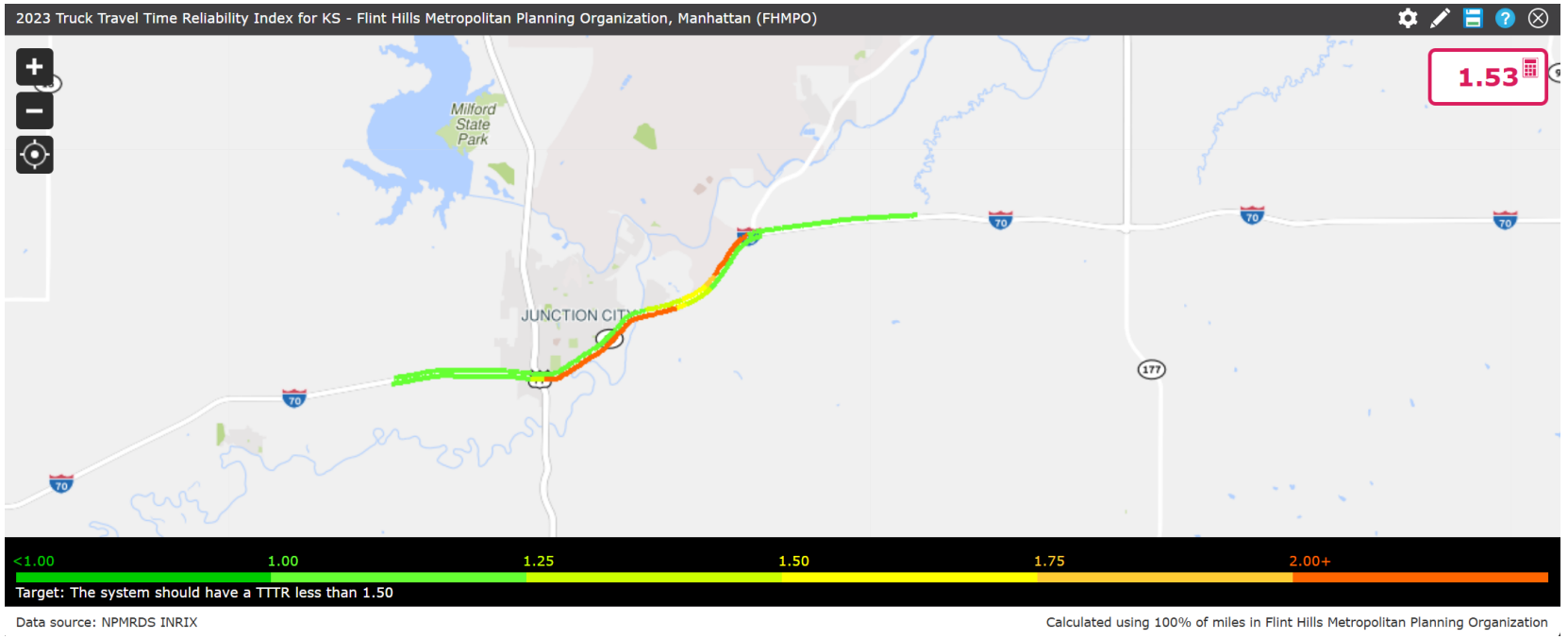
Year	TTTR	Target
2017	1.15	<1.50
2018	1.09	<1.50
2019	1.12	<1.50
2020	1.10	<1.50
2021	1.11	<1.50
2022	1.14	<1.50
2023	1.53	<1.50
2024		<1.50
2025		<1.50
2026		<1.50
2027		<1.50

Off Target

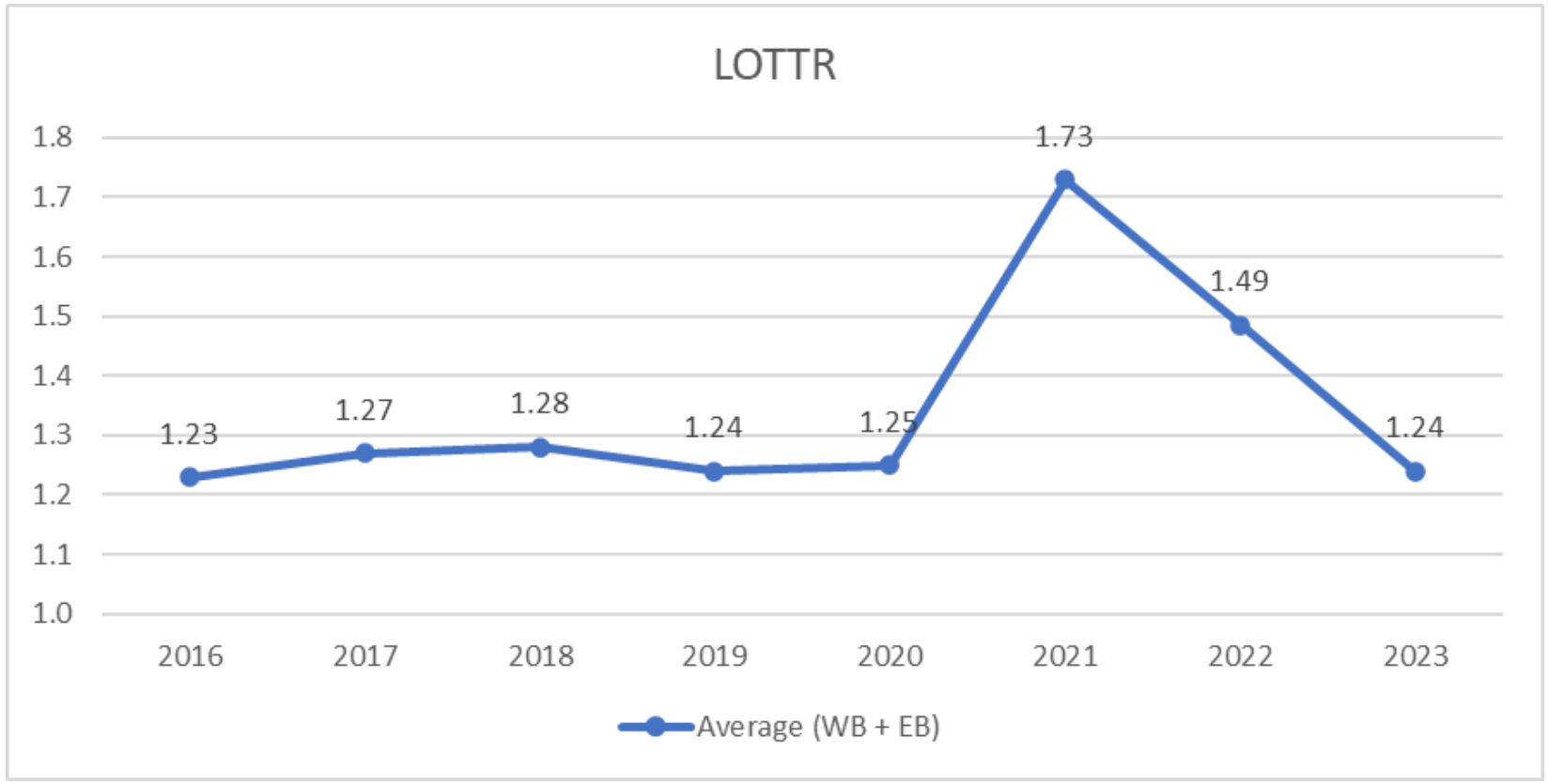


TARGET 3: INTERSTATE FREIGHT RELIABILITY MEASURE (TTTR)



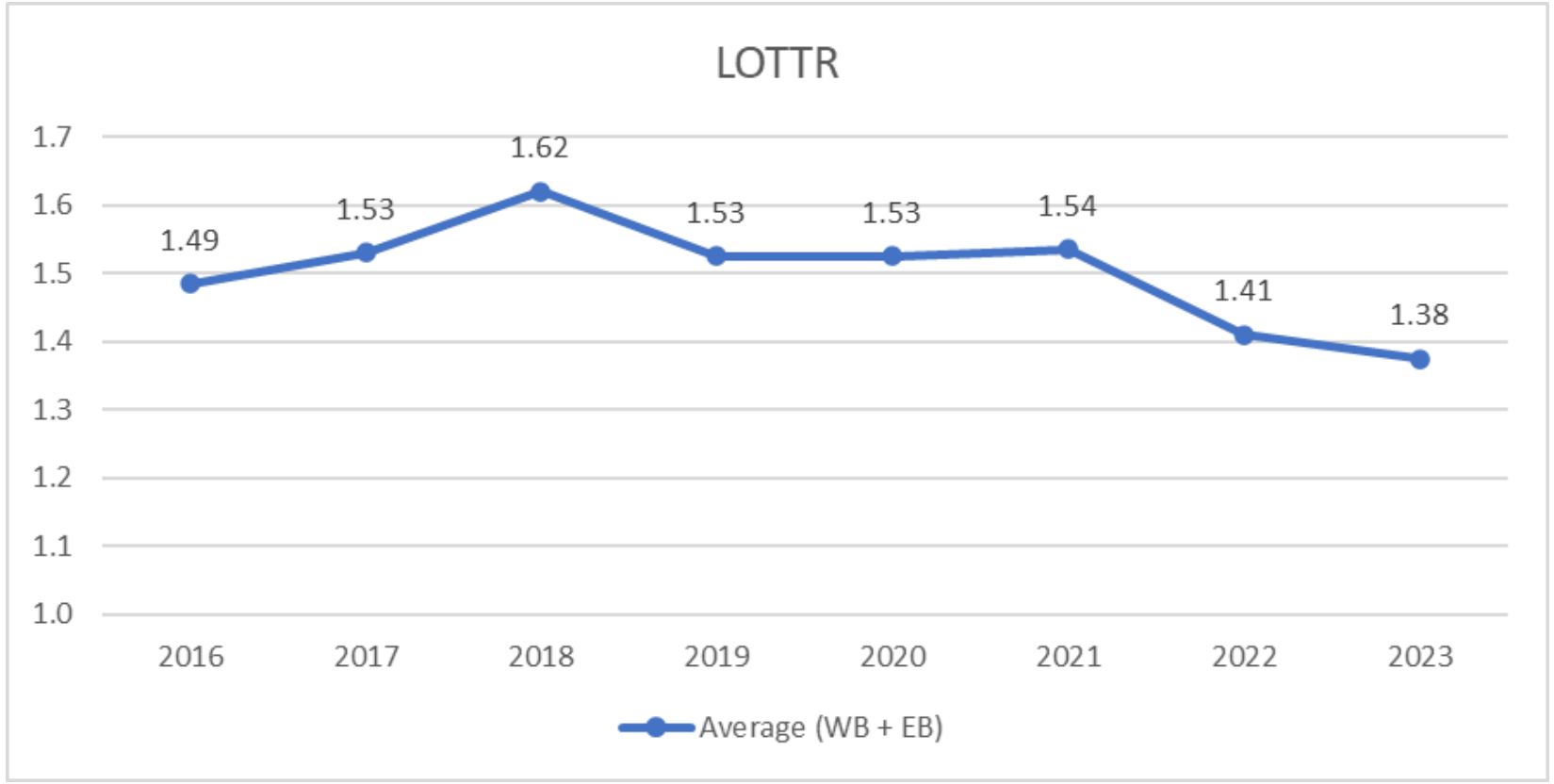


CHANGES OVER TIME: US-24, MALL TO FLUSH ROAD



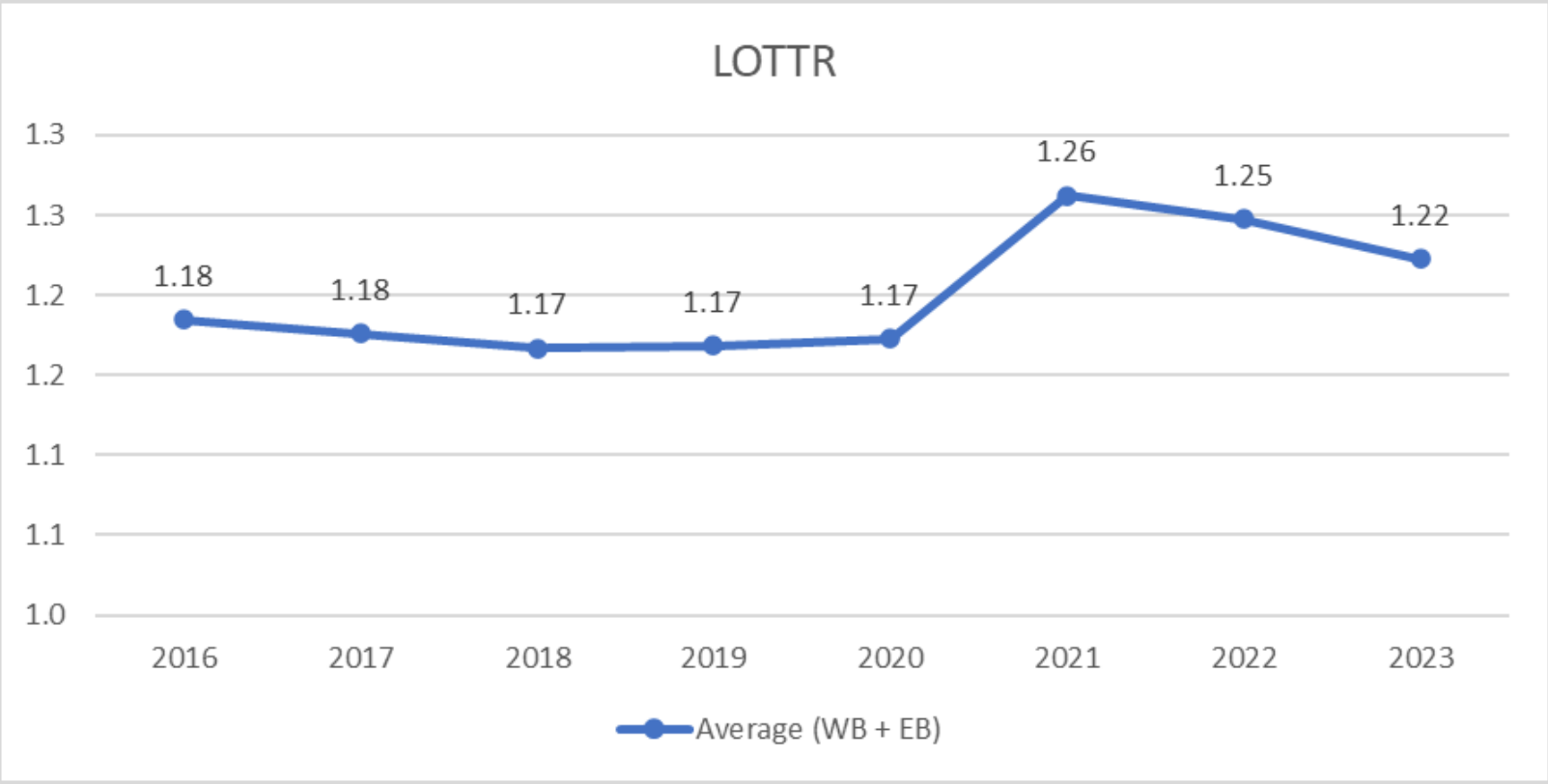
	Target	2016	2017	2018	2019	2020	2021	2022	2023
WB	LOTTR <1.5	1.25	1.28	1.3	1.27	1.27	1.79	1.4	1.21
EB	LOTTR <1.5	1.21	1.26	1.26	1.21	1.23	1.67	1.57	1.27
Total	**LOTTR <1.5**	**1.23**	**1.27**	**1.28**	**1.24**	**1.25**	**1.73**	**1.49**	**1.24**
Note	* 2021 & 2022 = GVR intersection & double left construction								

CHANGES OVER TIME: US-24, MALL TO KIMBALL



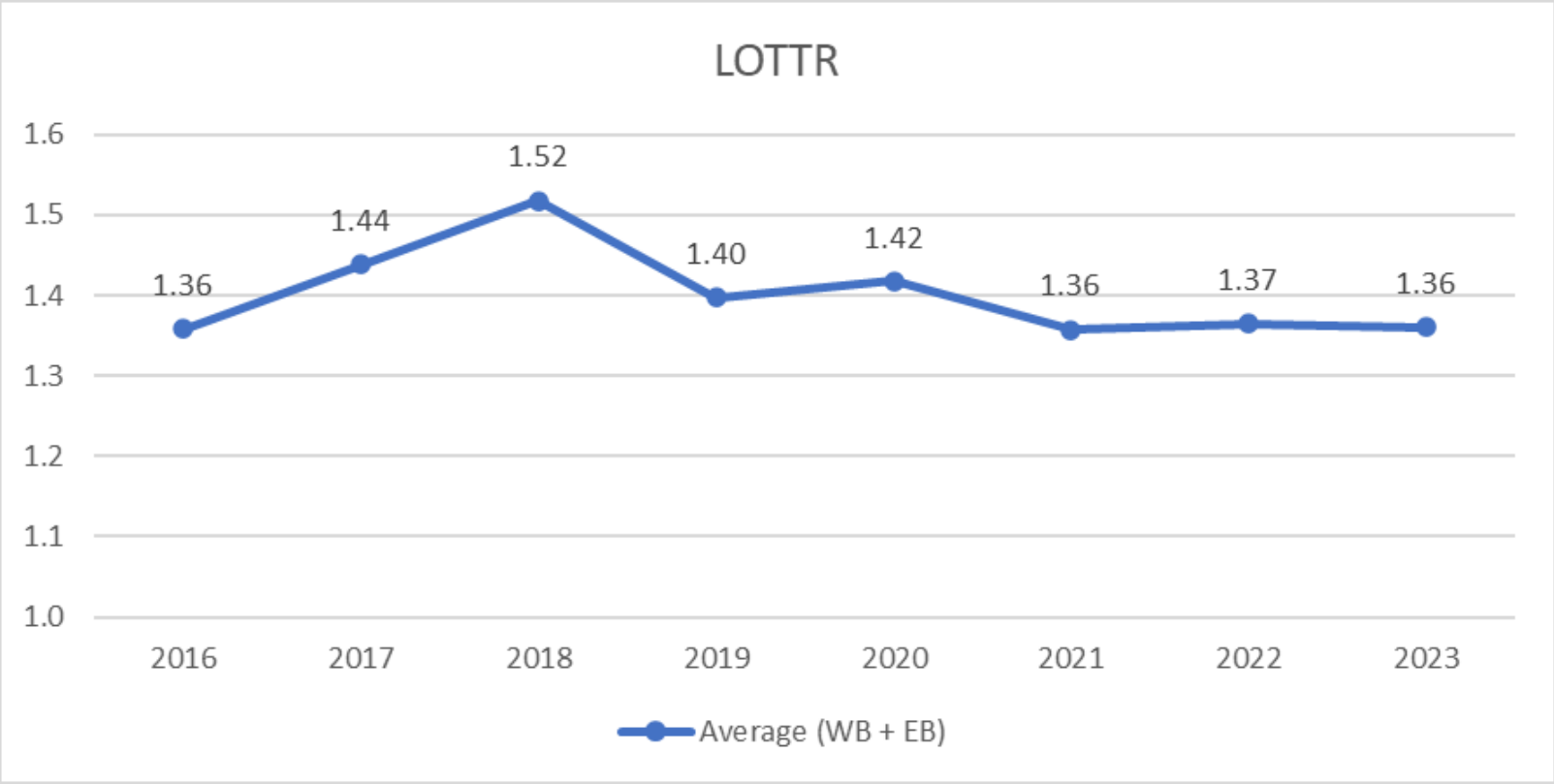
	Target	2016	2017	2018	2019	2020	2021	2022	2023
NB	LOTTR <1.5	1.49	1.56	1.65	1.55	1.52	1.55	1.39	1.35
SB	LOTTR <1.5	1.48	1.5	1.59	1.5	1.53	1.52	1.43	1.4
Total	**LOTTR <1.5**	**1.49**	**1.53**	**1.62**	**1.53**	**1.53**	**1.54**	**1.41**	**1.38**
Note									

CHANGES OVER TIME: US-24, KIMBALL TO US-77



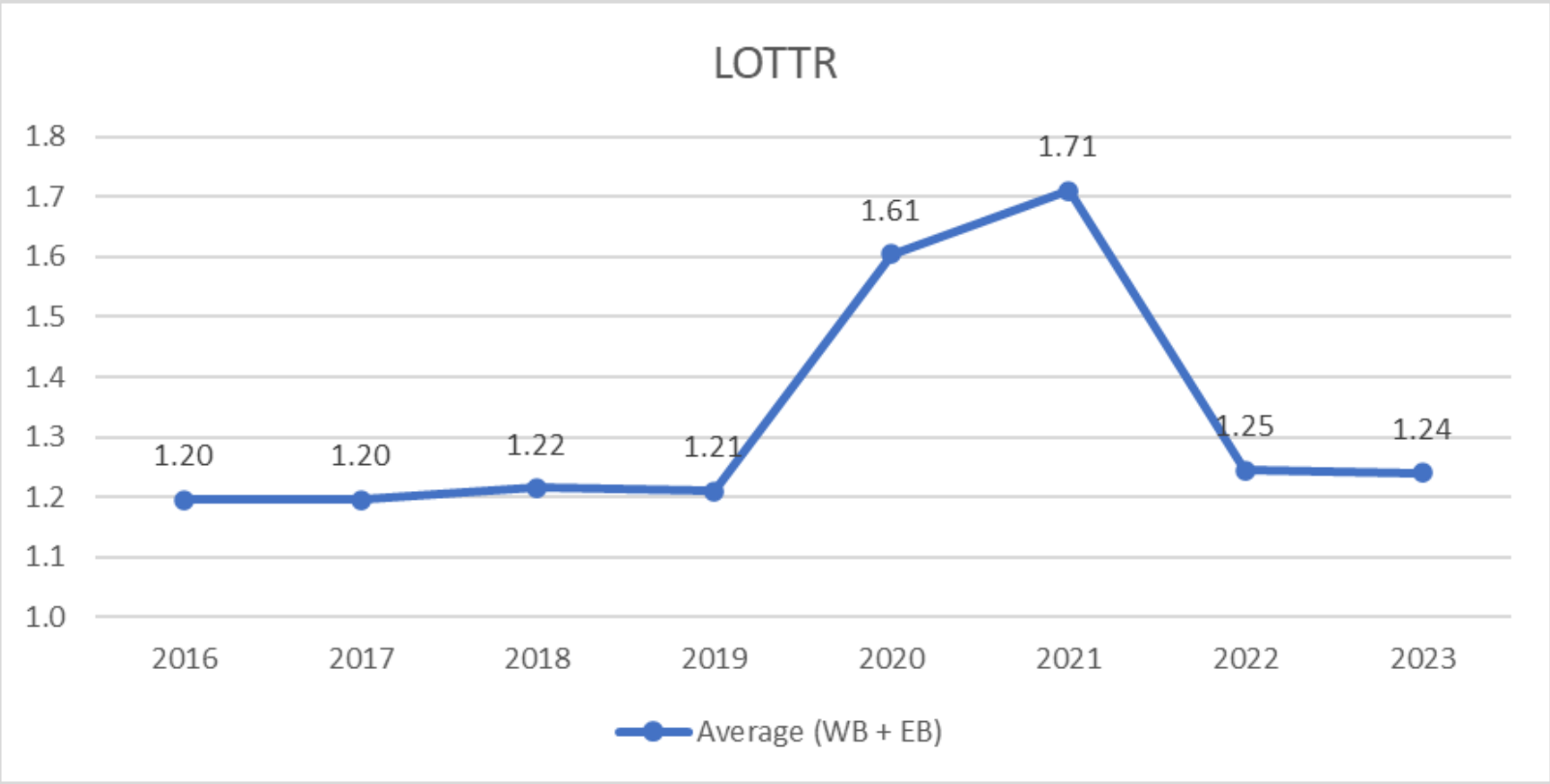
	Target	2016	2017	2018	2019	2020	2021	2022	2023
WB: Kimball - K13	LOTTR <1.5	1.23	1.21	1.2	1.26	1.22	1.4	1.44	1.25
WB: K13 - K113		1.16	1.13	1.09	1.1	1.14	1.19	1.15	1.1
WB: K113 - US-77		1.07	1.08	1.08	1.07	1.07	1.13	1.12	1.23
WB Total		1.15	1.14	1.12	1.14	1.14	1.24	1.24	1.19
EB: Kimball - K13	LOTTR <1.5	1.31	1.32	1.34	1.27	1.29	1.35	1.29	1.34
EB: K13 - K113		1.1	1.09	1.08	1.08	1.1	1.12	1.14	1.09
EB: K113 - US-77		1.07	1.07	1.08	1.06	1.06	1.06	1.06	1.05
EB Total		1.16	1.16	1.17	1.14	1.15	1.18	1.16	1.16
Total	**LOTTR <1.5**	**1.18**	**1.18**	**1.17**	**1.17**	**1.17**	**1.26**	**1.25**	**1.22**

CHANGES OVER TIME: K-113, ANDERSON TO STAGG HILL



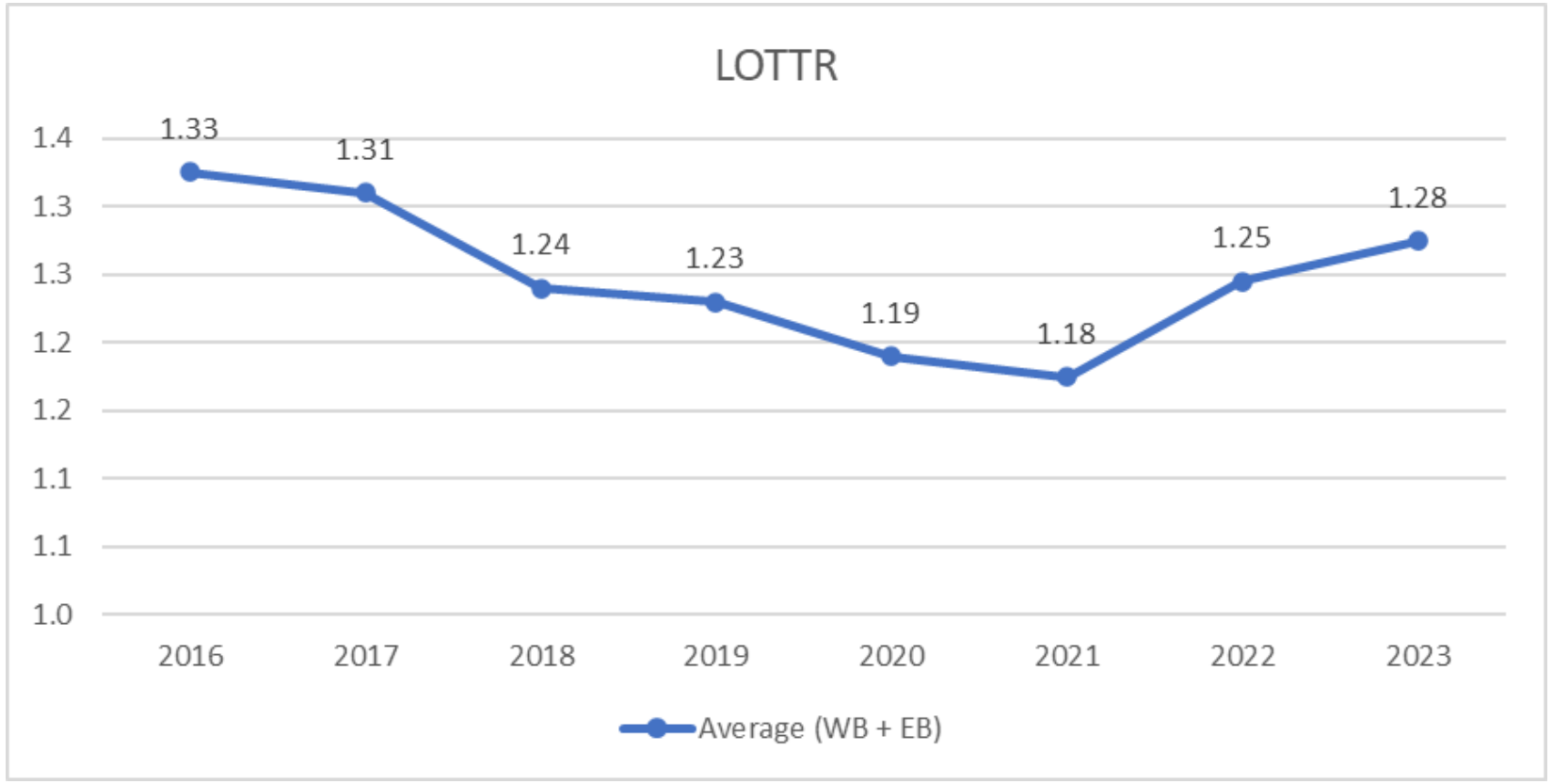
	Target	2016	2017	2018	2019	2020	2021	2022	2023
NB: Anderson - Southwind	LOTTR <1.5	1.29	1.32	1.33	1.31	1.33	1.27	1.24	1.25
NB: Southwind - Stagg Hill		1.48	1.61	1.83	1.55	1.57	1.43	1.56	1.55
NB Total		1.39	1.47	1.58	1.43	1.45	1.35	1.40	1.40
SB: Anderson - Southwind	LOTTR <1.5	1.28	1.36	1.33	1.3	1.32	1.38	1.26	1.24
SB: Southwind - Stagg Hill		1.41	1.56	1.88	1.6	1.5	1.54	1.36	1.41
SB Total		1.35	1.46	1.61	1.45	1.41	1.46	1.31	1.33
Total	**LOTTR <1.5**	**1.36**	**1.44**	**1.52**	**1.40**	**1.42**	**1.36**	**1.37**	**1.36**
Note	* DDI construction in 2018								

CHANGES OVER TIME: K-18, MLK JR TO RICHARDS



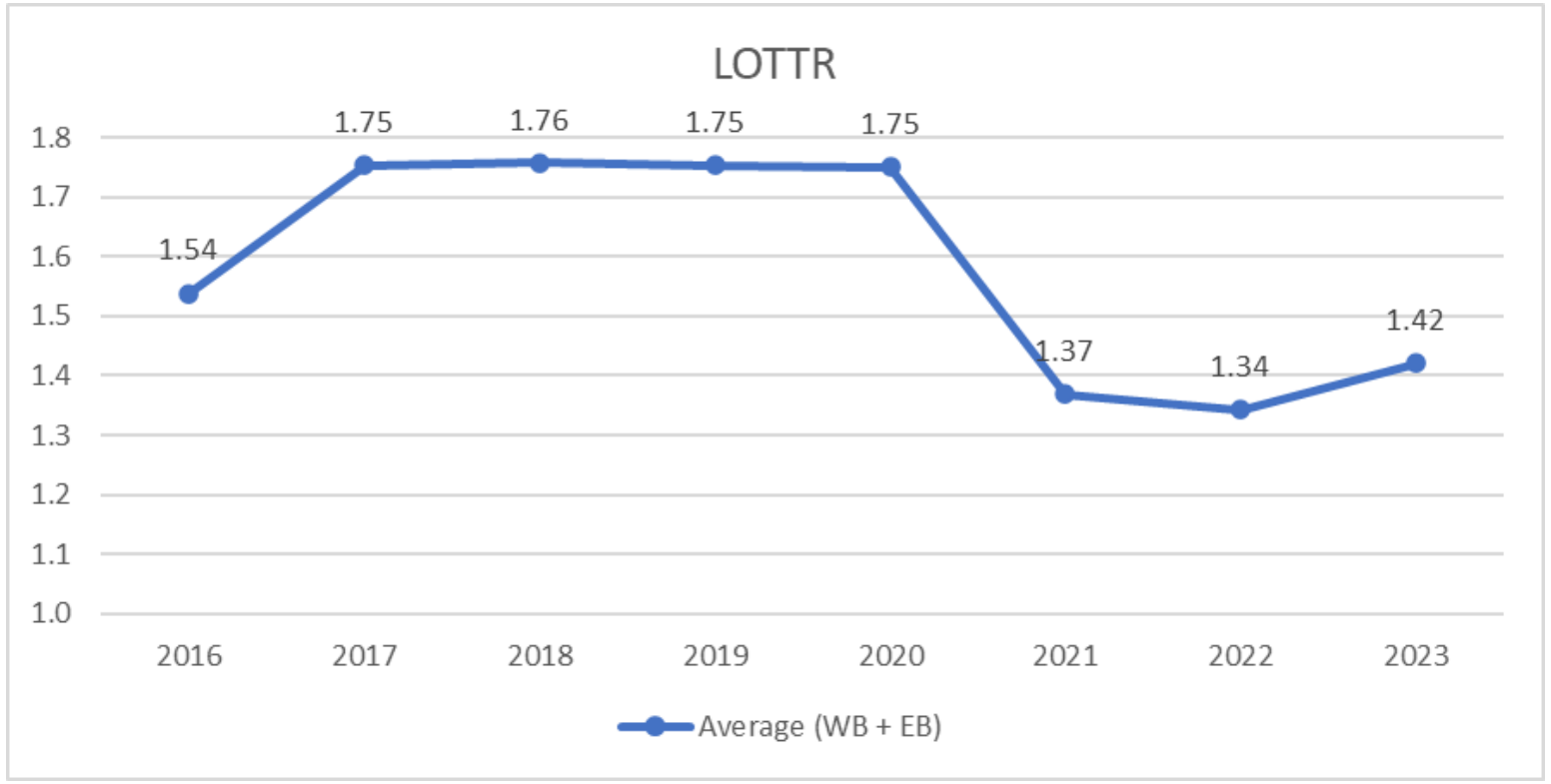
	Target	2016	2017	2018	2019	2020	2021	2022	2023
WB	LOTTR <1.5	1.2	1.18	1.23	1.2	1.94	2.08	1.2	1.2
EB	LOTTR <1.5	1.19	1.21	1.2	1.22	1.27	1.34	1.29	1.28
Total	**LOTTR <1.5**	**1.20**	**1.20**	**1.22**	**1.21**	**1.61**	**1.71**	**1.25**	**1.24**
Note	* 2020-2022 the Wildcat Creek bridge was being reconstructed								

CHANGES OVER TIME: US-24, FLUSH RD TO WAMEGO



	Target	2016	2017	2018	2019	2020	2021	2022	2023
WB	LOTTR <1.5	1.3	1.32	1.27	1.24	1.21	1.2	1.25	1.26
	LOTTR <1.5	1.35	1.3	1.21	1.22	1.17	1.15	1.24	1.29
Total	**LOTTR <1.5**	**1.33**	**1.31**	**1.24**	**1.23**	**1.19**	**1.18**	**1.25**	**1.28**
Note									

CHANGES OVER TIME: US-77, ASH TO GE COUNTY LINE



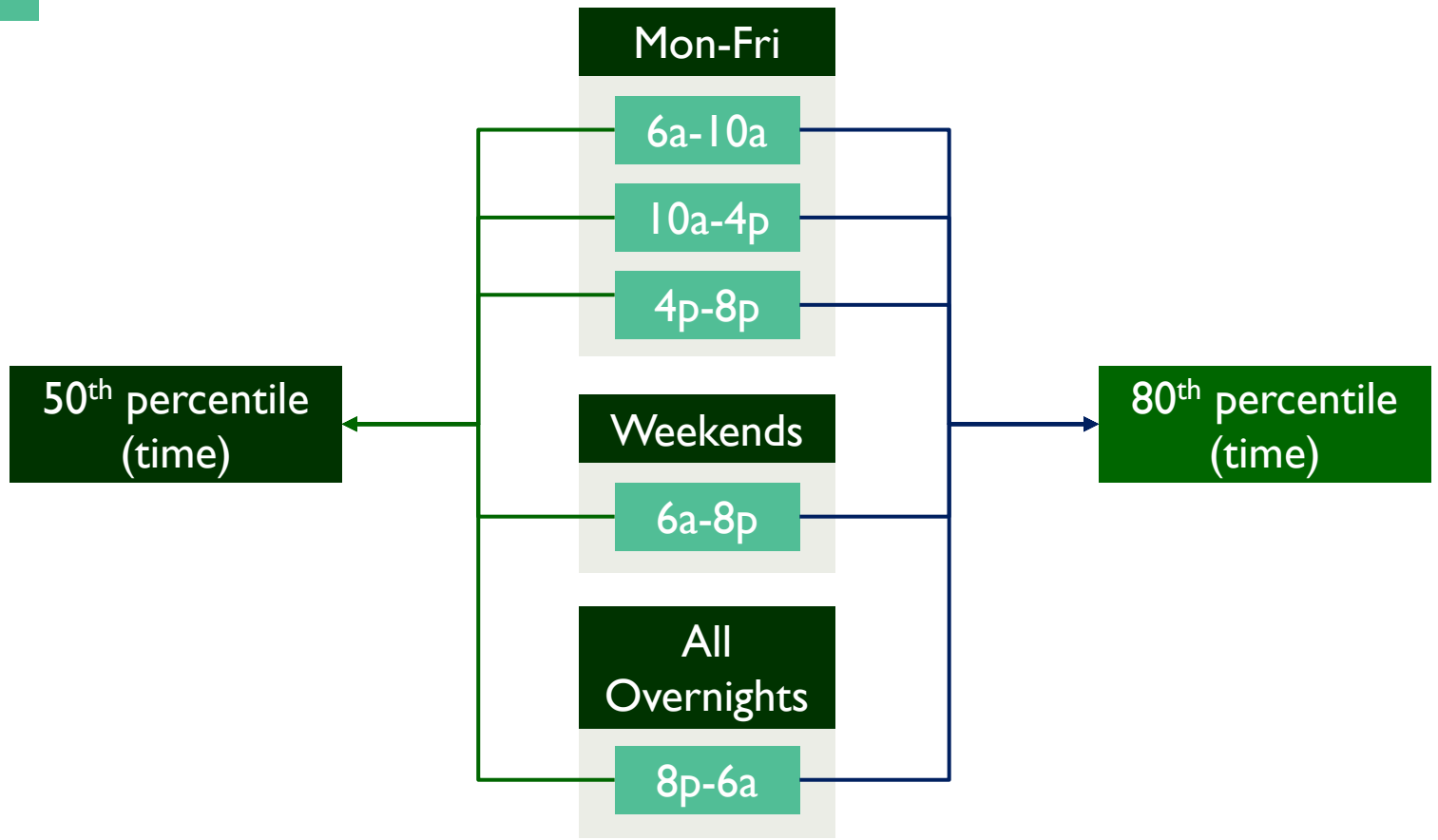
	Target	2016	2017	2018	2019	2020	2021	2022	2023
NB: GE line to I-70	LOTTR <1.5	1.77	1.98	1.93	1.73	1.73	1.26	1.22	1.43
NB: I-70 Interchange (DDI)		1.42	1.58	1.5	1.55	1.64	1.64	1.6	1.6
NB: I-70 to K-18		1.37	1.94	2.04	2.07	2	1.4	1.38	1.41
NB Total		1.52	1.83	1.82	1.78	1.79	1.43	1.40	1.48
SB: GE line to I-70	LOTTR <1.5	1.61	1.43	1.49	1.63	1.59	1.11	1.11	1.18
SB: I-70 Interchange (DDI)		1.5	1.64	1.64	1.66	1.65	1.65	1.67	1.64
SB: I-70 to K-18		1.29	1.53	1.65	1.59	1.37	1.21	1.23	1.27
SB Total		1.47	1.53	1.59	1.63	1.54	1.32	1.34	1.36
Total	**LOTTR <1.5**	**1.54**	**1.75**	**1.76**	**1.75**	**1.75**	**1.37**	**1.34**	**1.42**
Note	* DDI under construction 2017-2018								

BACKGROUND ON SYSTEM RELIABILITY & FREIGHT MANAGEMENT

- System Reliability & Freight Management data are monitored and aggregated via the Regional Integrated Transportation Information System (RITIS). RITIS is a web-based database with multiple interfaces including graphs and maps.
- FHMPO staff has access to this data and has an account based upon the 2017 FHMPO boundary. RITIS data is monitored on the Interstate and Non-Interstate NHS systems.

LEVEL OF TRAVEL TIME RELIABILITY (LOTTR)

1



2

80th percentile

÷

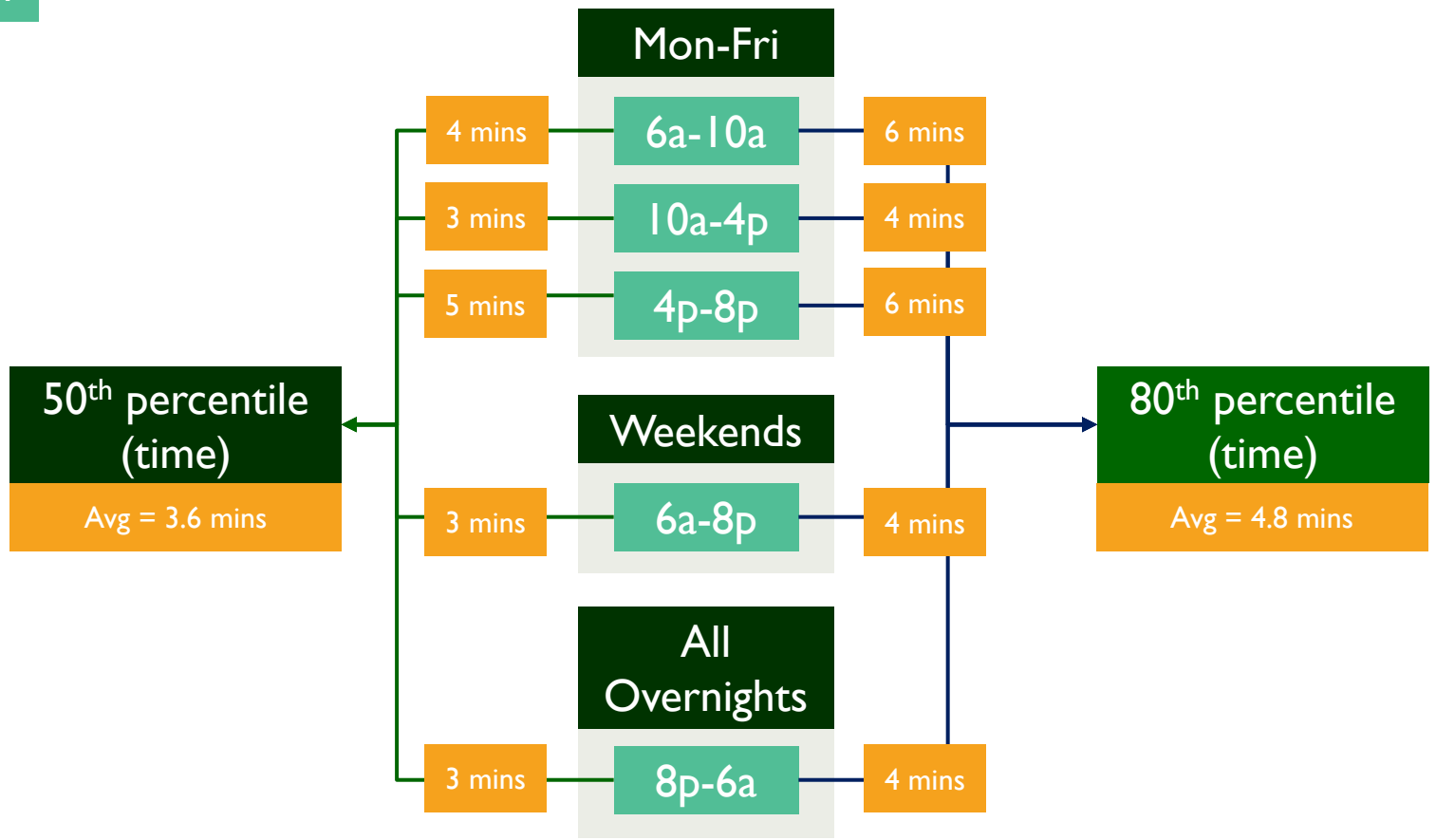
50th percentile

=

LOTTR

LEVEL OF TRAVEL TIME RELIABILITY (LOTTR)

1



2

80th percentile

Avg = 4.8 mins

÷

50th percentile

Avg = 3.6 mins

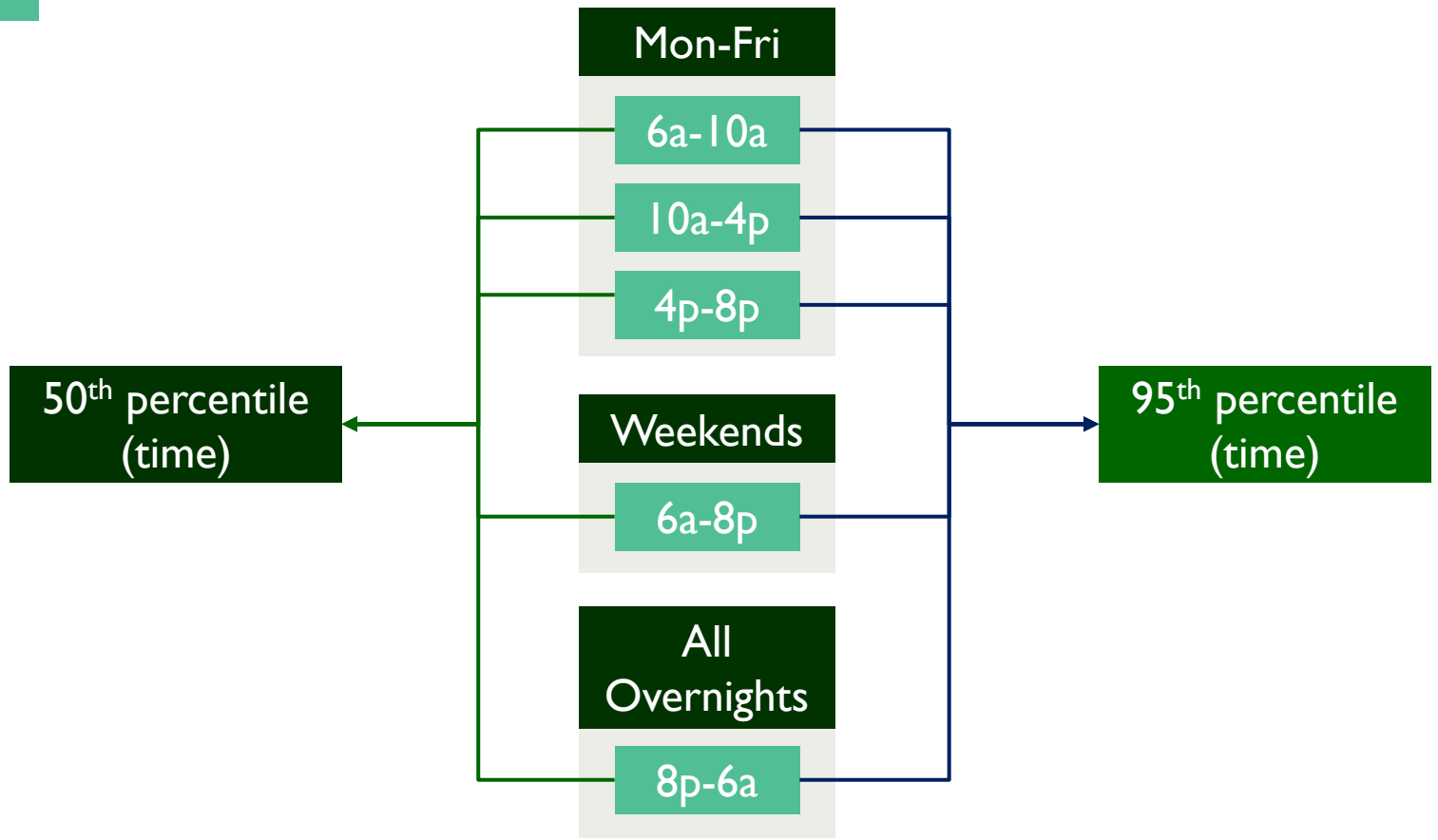
=

LOTTR

1.33

TRUCK TRAVEL TIME RELIABILITY INDEX (TTTR)

1



2

95th percentile

÷

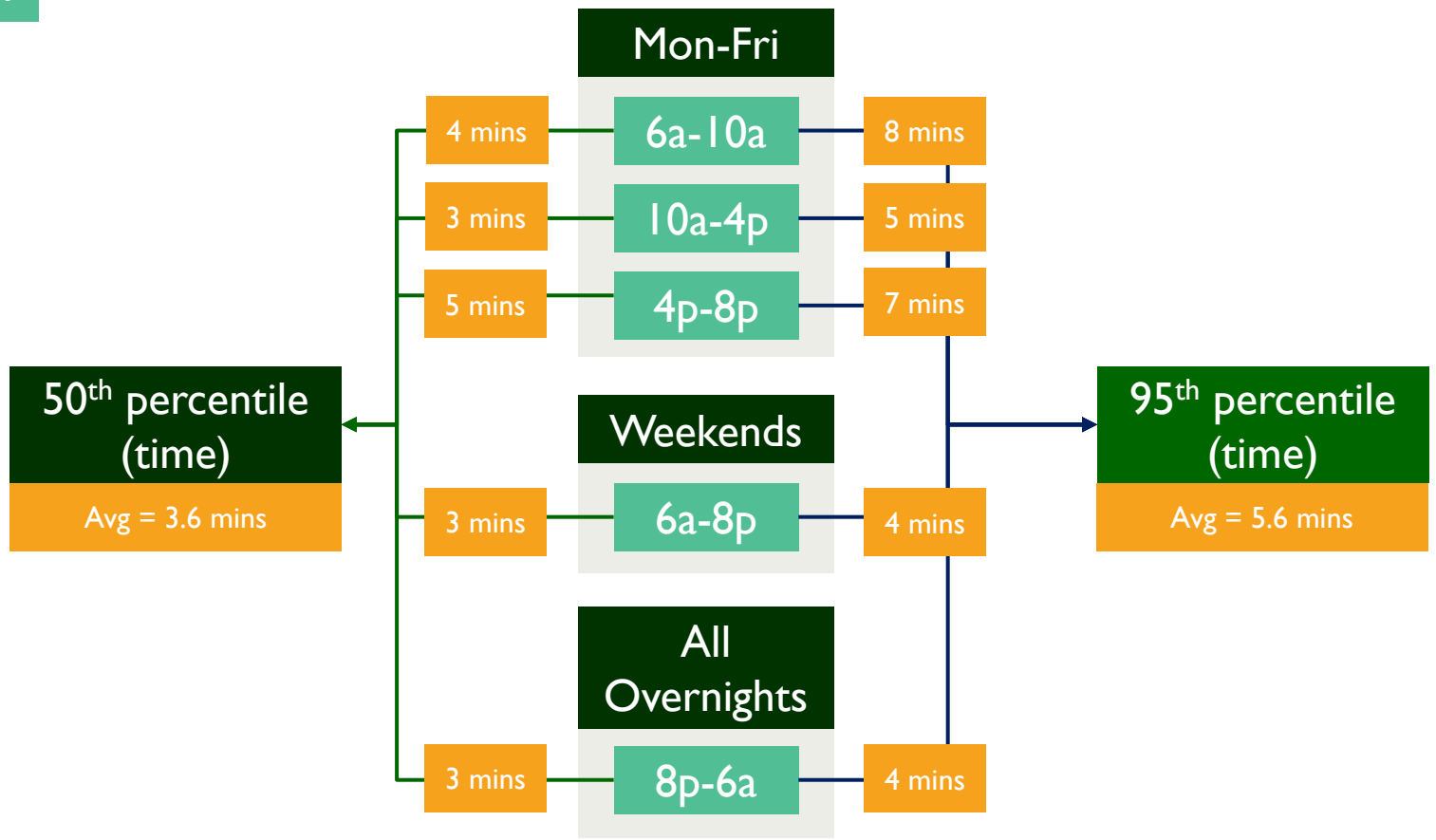
50th percentile

=

TTTR

LEVEL OF TRAVEL TIME RELIABILITY (TTTR)

1



2

95th percentile

Avg = 5.6 mins

÷

50th percentile

Avg = 3.6 mins

=

TTTR

1.55