

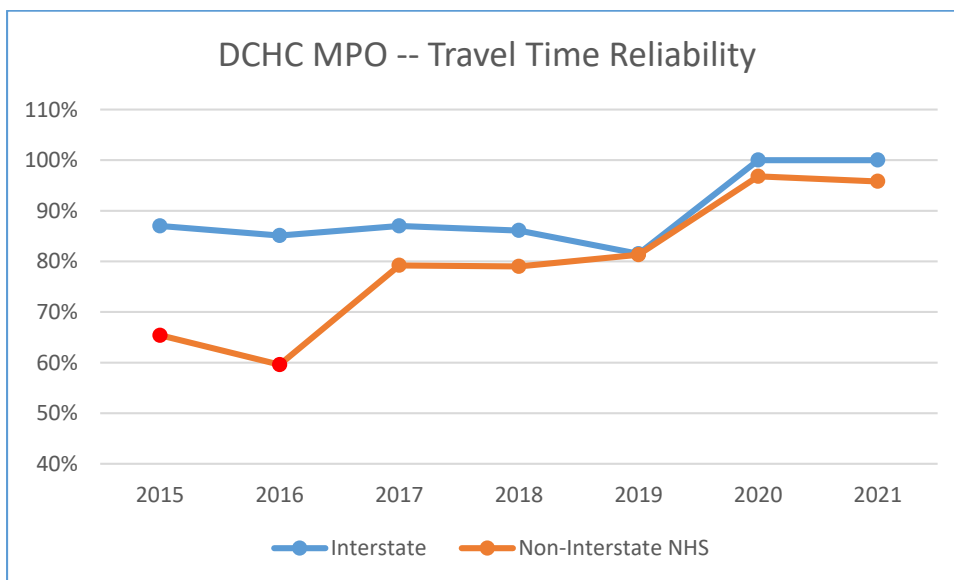
## 2050 MTP – Alternatives Analysis

### Travel Time Reliability

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**Travel Time Reliability** (TTR) measures the percent of person miles traveled that are reliable. As the percent increases, travelers are less likely to experience unexpected delays and less likely to have to leave early for a trip to anticipate unexpected delays and arrive on time. TTR uses actual vehicle travel data, not data from the Triangle Regional Model (TRM), and thus the data cannot be forecasted. As a result, there is not a TTR measure for each of the alternatives. However, the TTR is still an important performance measure to consider in long-range transportation planning to understand the overall health of the transportation system.

The graphic below shows that the TTR has steadied for interstates and risen for non-interstate National Highway System (NHS) roadways (e.g., US highways) over the last several years, indicating an overall improvement in travel reliability. The DCHC MPO target for the TTR is at least 80% for interstates and 70% for non-interstate NHS. Only the non-interstate NHS for years 2015 and 2016 fail to achieve the target (see red markers in graph).



The **Truck Travel Time Reliability Index** (TTI) is a similar measure of reliability except a decrease in the value of the measure signifies an improvement in travel reliability for trucks. The graph on the next page indicates that the unreliability of truck travel on interstates was increasing until the Covid-19 pandemic slowed travel demand in 2020 and 2021. The DCHC MPO target for the TTI is less than 1.65 for interstates. The year 2019 failed to achieve the target (see red marker in graph).

Pages 3 and 4 of this document are slides from a presentation that proposed the adoption of the Travel Time Reliability and Truck Travel Time Reliability Index measures. The slides provide a more detailed explanation of the measures.

DCHC MPO -- Truck Travel Time Reliability Index

