

Commercial Aviation Transportation of Persons – Base Airfare with respect to Trip Length

Perhaps one might argue that commercial aviation was short changed in the analysis. In the context of the example traveler making the 508 mile trip the flying search likely showed a connection would be required making for a series of interrupted time segments nearly as long in total as driving at a price point that doesn't seem cheaper but for trips over 700 miles. One could either leave from the house very early or mid-morning from the office but 6 ½ hours of total time would either get you there frazzled at lunchtime or at the end of the day, so at least one night is needed in a hotel and the long app hailed ride from the airport is costly compared to short rides around town. Besides, most corporate travel systems have no other options beyond reimbursable auto mileage for this trip as if nothing exists beyond the major metros.

However, even this 2018 price curve needs the support of the last minute business traveler to keep the average airfare at the level shown in Figure 1 excluding airline change and baggage fees and airport parking fees. What is going to happen in 2021 as these higher margin business fares disappear for mainline flights and the regional jet routes are reduced³³ that enable highway competitive distributed origins?

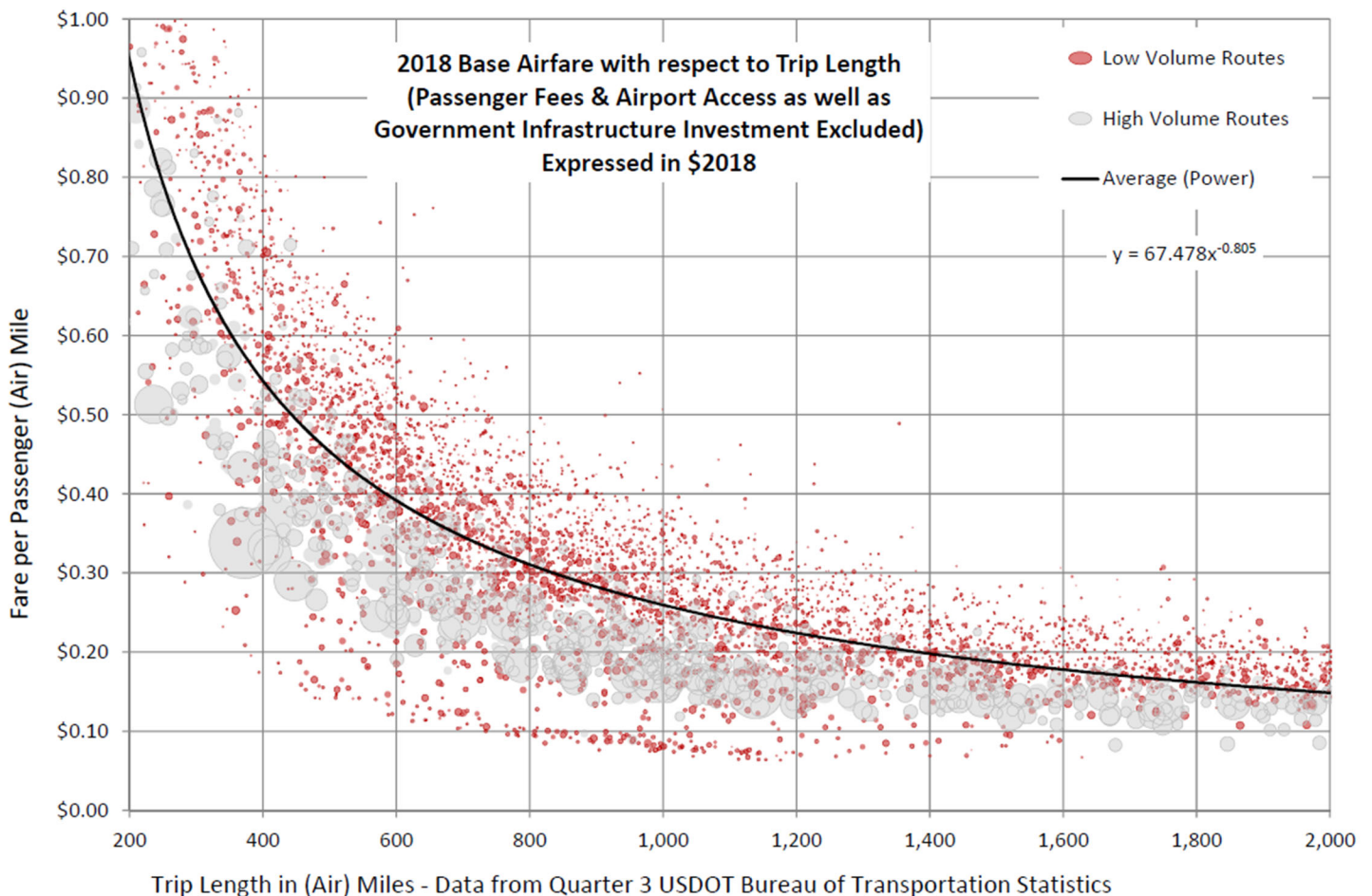


Figure 1 – 2018 Airfare with respect to Trip Length Curve

Ground Transportation of Persons - Highway and Rail Average Speed with respect to Trip Length

Due to the inherent leveraging of highway infrastructure from taxes on the use of locally financed streets, travel by the Interstate Highway system is the intercity travel option that occupies the largest modal share of intercity trips in the United States. Hence it is reasonable to compare actual trip times by highway to those offered for trips under the pricing breakpoint for commercial aviation. Amtrak by statute is to consider benchmarking their service provisions against intercity trip times such as the highway trip curves below that include rest and meal stops, yet has largely ignored the overlapping trip options on through running National Network rail passenger

³³ Sindreu, Jon, Wall Street Journal, September 11, 2020, https://www.wsj.com/articles/airline-aid-is-ending-regional-flights-may-suffer-the-most-11599822330?mod=lead_feature_below_a_pos1

routes, particularly comparisons against long distance driving for departures at the end of the day after productive time at the destination.

While overall trip times are important, even individual trip lengths over 200 miles not terminating in a large metropolitan area can be highly competitive for intercity passenger rail due to the “lost-time” factor of spending too much unproductive time driving. However, to do so train stations need to embrace efficient automobile rental and parking options that are linked to the ticket. Such links broadly fit within the push for Mobility-as-a-Service (MaaS) many automakers are pursuing as a future market.

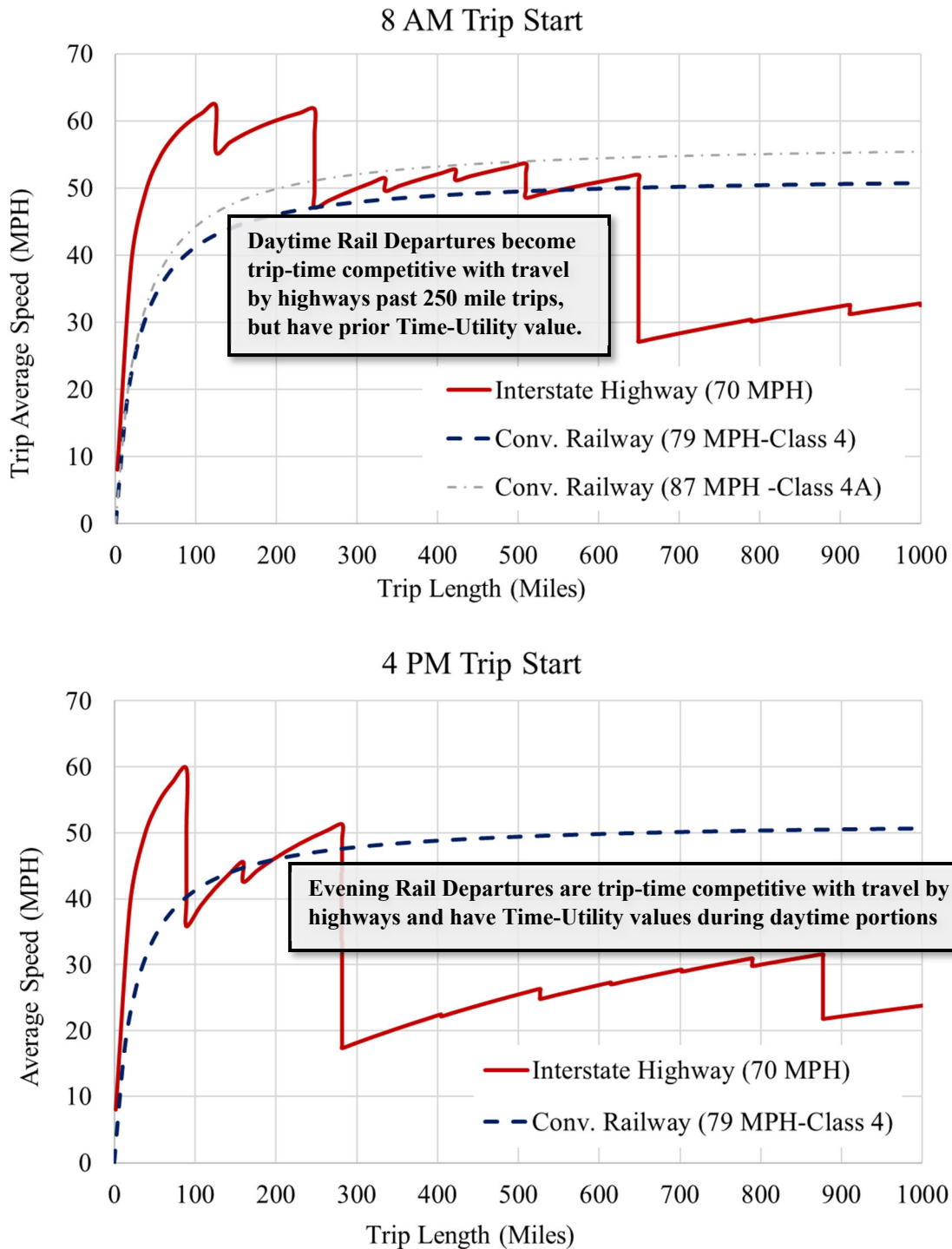


Figure 2 – Ground Transportation of Persons - Average Speed Analysis with respect to Trip Length Curve