

What Happens When a Public Truck Parking Facility Closes?

An inventory tells you what parking exists. It does not tell you which lots the network could get by without.

Why it matters: Public rest areas get closed, downsized, and rebuilt on budget and maintenance cycles. If this facility goes away, where do the trucks go? We took one lot out of the network at a time, redistributed its trucks to the next nearest lots with open spaces, and recorded what did not fit.

BY THE NUMBERS

- **2,273** public truck parking facilities analyzed across 48 states.
- **8,589** public and private facilities evaluated as absorption candidates
- Median displaced demand per closure: 12 trucks
- Within 30 miles: 25.6% of removals leave demand unabsorbed (18.2% of total displaced trucks)
- Within 60 miles: 3.6% of removals leave demand unabsorbed (1.6% of total displaced trucks)

WHAT WE FOUND

- **Criticality $\neq$ size.** Large facilities often rank low if surrounded by spare capacity; smaller facilities can rank high when alternatives are full.
- **Paid lots absorb 15%** of displaced demand nationally, over 30% in NJ, PA, KY, and TN. Closures can shift costs onto drivers.
- **Rankings are stable** under ± 10 percentage-point utilization shifts and across 30- vs 60-mile cutoffs.

HOW PLANNERS USE IT

- **Prioritize maintenance, rehabilitation, and closure protection** for the most irreplaceable facilities
- **Plan capacity preservation** (temporary lots, private operator partnerships) where surrounding residual capacity is low
- **Identify corridors** where closures would push trucks into paid parking, and assess the cost impact on drivers

LIMITATIONS

- Utilization estimates are model-based, not sensor-measured. Accuracy varies by facility.
- Uses facility-to-facility distance, not individual driver routes or detour tolerance (most drivers accept 3 miles or less)
- Does not model tolls, route-specific costs, or willingness to pay for parking.
- Assumes single-facility closures only. Does not assess concurrent closures (e.g., seasonal or corridor-wide).
- Results reflect current capacity and utilization, not future demand growth or behavioral adjustments.