U.S. COMMERCIAL FLEET TELEMATICS · JANUARY – DECEMBER 2025

Phone Use Behind the Wheel

Speed, timing, and seasonal patterns from **5,545,873 trips** recorded across the United States in 2025.

01
36.5%
of trips involved phone use
2,024,122 trips

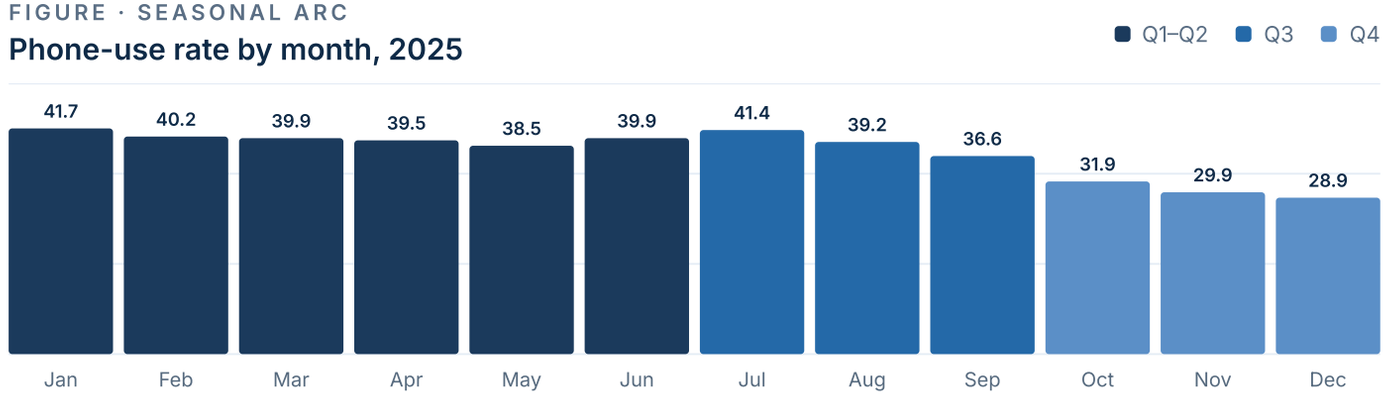
02
41.7%
peak month — January
annual high

03
+3.1 mph
faster on phone-use trips
35.1 vs 32.0

04
1 in 10
phone trips also included speeding
10.2%

FIGURE · SEASONAL ARC

Phone-use rate by month, 2025



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Dataset
5,545,873 trips · 17,346 drivers

EXECUTIVE SUMMARY

What 5.5 million trips tell us about phone use behind the wheel

This white paper presents findings from an analysis of 5,545,873 commercial fleet trips recorded across the United States in 2025 using the Damoov telematics platform. The dataset captures real-world driving behavior by fleet drivers on work trips — a population of direct relevance to fleet safety managers and transportation policymakers.

Key findings

36.5%
of trips involved phone use
2,024,122 TRIPS

+3.1 mph
faster on phone-use trips
35.1 VS 32.0 AVG

37.6%
evening rush incidence
18:00–20:00

3.7%
phone use while speeding
206,943 TRIPS

41.7%
January peak
Q4 LOW AT 28.9%

At a glance

Phone use occurred on 36.5% of all trips, with the average episode lasting 1.66 minutes and covering 0.86 miles — accounting for 3.46% of all driving time across the dataset. Evening Rush Hour (18:00–20:00) showed the highest structured incidence at 37.6%; Night (21:00–07:00) showed elevated raw incidence (38.2%) despite accounting for just 2.1% of all trips.

Phone-use trips averaged 3.1 mph faster than non-phone trips, most likely reflecting a trip-type effect rather than a direct causal link. Combined phone-use-while-speeding occurred on 3.7% of all trips. July and August stood out with a phone+speeding rate of 5.0% — 61–85% higher than the Q1 rate of 2.9–3.1%. Phone use was highest in Q1 (January: 41.7%) and remained elevated through summer (38–41%), while Q4 (29–32%) represented the clearest seasonal low.

FIGURE 1 **At-a-Glance — Key Statistics from 5.5M U.S. Fleet Trips**

5.5M	17.3k	97M	36.5%
trips analyzed	unique drivers	driving minutes	phone-use rate

SECTION 1

01 Introduction

Distracted driving remains one of the most persistent challenges in road safety. While self-report surveys and observational studies have long documented phone use among drivers, both methods face well-known limitations: surveys rely on accurate recall and honest disclosure, while roadside observation captures only brief windows of behavior in constrained locations.[1] Telematics platforms offer a complementary approach — continuous, objective, and large-scale measurement of in-trip behavior across diverse routes, times, and conditions.

This paper uses data from the Damoov SDK, deployed across commercial fleet operations in the United States, to examine three research questions:

RQ-1

Does phone use incidence vary by time of day — across Evening Rush Hour, Daytime, and Night — and if so, how?

RQ-2

Is phone use associated with higher trip speeds, and what explains that association?

RQ-3

How does phone use incidence vary across months of the year, and what seasonal patterns emerge?

Framing note. This dataset reflects commercial and fleet drivers on work trips, not the general driving public. Fleet drivers operate under employment policies, dispatch schedules, and vehicle types that shape their behavior in ways that may differ from personal driving. This distinction is a feature rather than a limitation for the target audience of this paper.

Fleet safety managers, transportation policymakers, and occupational health researchers will find the findings directly applicable to their operational contexts. The analysis draws on 5,545,873 trips from 17,346 unique drivers recorded during calendar year 2025. Findings are reported descriptively; causal claims are explicitly avoided where the data do not support them.

TRIPS	UNIQUE DRIVERS	OBSERVATION PERIOD	GEOGRAPHY
5,545,873	**17,346**	**Jan–Dec 2025**	**United States**

SECTION 2

02 Methodology and Dataset

2.1 · Data source

Data were collected via the Damoov telematics SDK, integrated into fleet management applications across commercial operators in the United States. The SDK runs on drivers' mobile devices and captures continuous sensor streams during vehicle trips — including GPS position, speed, and inertial motion data from the device's accelerometer and gyroscope. Trip detection and segmentation are handled automatically by the SDK. All data were anonymized at the driver level prior to analysis.

2.2 · Dataset scope

METRIC	VALUE
Total trips	**5,545,873**
Unique drivers	**17,346**
Total driving minutes	**97,039,218**
Phone-use trips	**2,024,122 (36.5%)**
All trips — mean distance	**10.25 mi**
Phone-use trips — mean distance	**14.71 mi**
Observation period	**January – December 2025**
Geography	**United States**
Driver population	**Commercial fleet / work trips**

2.3 · Key variables

PhoneUsageDurationMin is the primary indicator of phone interaction. It is derived from the device's X, Y, and Z accelerometer and gyroscope sensors. The SDK detects characteristic motion signatures associated with a driver physically handling or interacting with the phone — picking it up, tilting it to view the screen, or manipulating it with their hands.

> **A critical implication.** A phone sitting stationary in a dashboard mount is *not counted*, even if a hands-free call is in progress. The metric is therefore best understood as a measure of handheld phone interaction rather than all phone-related activity. This reduces false positives from hands-free use, though some forms of distraction (extended glancing, voice-command use) may not be captured.

A trip is classified as a phone-use trip when PhoneUsageDurationMin > 0. **PhoneUsageOverSpeedDurationMin** captures intervals where phone use and above-limit speeding occurred simultaneously. **AverageSpeedMi** is the mean speed in miles per hour across the full trip duration.**DrivingTime** is the total elapsed duration of each trip; in this dataset, DrivingTime was directly recorded for all 5,545,873 trips, with no estimation required.

2.4 · Time-of-day classification

All trip start times are used for period classification. The windows are defined as follows; each trip is assigned to whichever period contains the majority of its driving minutes.

PERIOD	CLOCK WINDOW	NOTES
Night	21:00 – 07:00	Low-traffic, low-light conditions
Daytime	07:00 – 21:00	Includes morning and midday travel
Evening Rush Hour	18:00 – 20:00	Subset of Daytime; analyzed separately

Evening Rush Hour is the only peak-hour period analyzed separately. The morning peak commute (07:00–09:00) falls within the Daytime window and is not broken out as a distinct category. All references to "rush hour" in this paper refer to the 18:00–20:00 evening window.

2.5 · Limitations

Fleet sample
The dataset covers commercial fleet drivers on work trips. Behavioral patterns, trip lengths, and schedules may differ from personal driving and should not be generalized to the full driving population.

Sensor detection boundaries
Accelerometer/gyroscope detection focuses on physical handling but does not distinguish a quick GPS tap from extended social-media scrolling. Duration metrics capture interaction length but not cognitive load.

No handheld/hands-free sub-classification
The sensor approach narrows detected events toward handheld interactions, but a formal classification is not available.

Monthly compositional variation
The number of trips and active drivers varies substantially across months — see table below for the per-month driver pool.

Monthly driver pool — 2025

MONTH	TRIPS	UNIQUE DRIVERS	TRIPS / DRIVER
January	290,220	2,503	**116**
February	329,376	2,939	**112**
March	402,851	3,018	**133**
April	399,869	3,254	**123**
May	531,311	8,719	**61**
June	443,073	6,225	**71**
July	385,445	4,181	**92**
August	448,381	6,040	**74**
September	532,187	6,576	**81**
October	610,558	6,429	**95**
November	554,103	7,311	**76**
December	618,499	8,604	**72**

Q1 (Jan–Mar) shows a small, high-activity driver pool averaging 116–133 trips per driver. By May the pool expands to 8,719 drivers at just 61 trips per driver. This 3.4× expansion means month-to-month comparisons reflect both behavioral patterns and shifts in who is driving — the higher Q1 rates may in part reflect this compositional effect.

SECTION 3

03 Findings

The findings are organized around the three research questions, with two secondary analyses on phone-use-while-speeding and seasonal patterns.

Across the dataset, the most distinctive risk signal is not overall prevalence but the **phone+speeding co-occurrence rate**, which peaks sharply in July and August at 5.0% — 61–85% above the Q1 baseline.

SECTION 3.1

Overall phone-use prevalence

Phone use was detected on **2,024,122 of 5,545,873 trips** — a prevalence rate of 36.5%. Episodes are typically brief but consistent across the fleet, with a long tail of extended interactions pulling the average upward.

36.5%

OF ALL TRIPS

involved handheld phone interaction

≈ 1 in every 2.7 work trips

1.66 min

avg episode duration

median 0.73

0.86 mi

avg distance during interaction

median 0.38

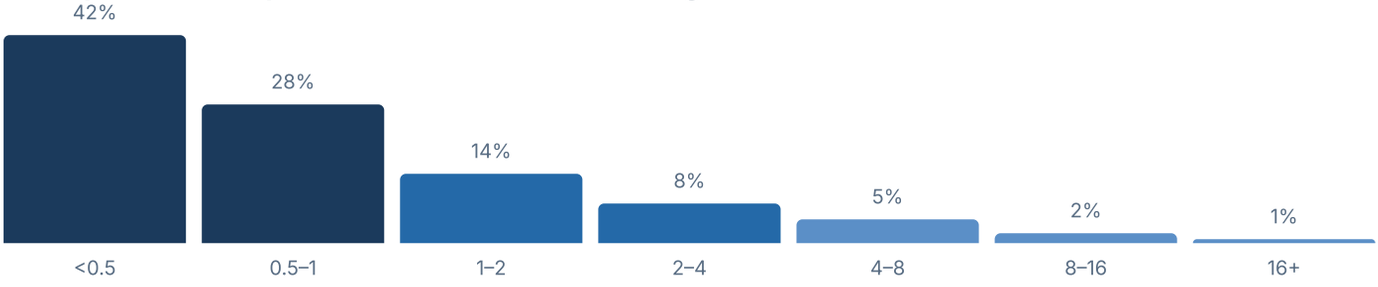
3.46 %

share of all driving minutes

97M minutes total

FIGURE 2 · EPISODE PROFILE

Most phone-use episodes are short — but a long tail extends them



BINS · MINUTES PER PHONE-USE EPISODE (ILLUSTRATIVE, FROM RIGHT-SKEWED DISTRIBUTION)

★ **Operational takeaway.** The skew between mean (1.66 min) and median (0.73 min) indicates most episodes are brief — coaching programs that target high-frequency, short-duration interactions may have more leverage than those focused solely on extended engagement.

SECTION 3.2 · RQ-1

Phone use across the driving day

Evening Rush (18:00–20:00) holds the highest structured incidence; Night appears elevated in raw terms but reflects a small, atypical fleet segment.

Evening Rush
18:00 – 20:00

37.6 %
INCIDENCE

Trips	1,643,961
Trip share	29.7%
Avg episode	1.42 min
% trip time	9.2%
% all min	3.21%

Daytime
07:00 – 21:00

36 %
INCIDENCE

Trips	3,786,995
Trip share	68.3%
Avg episode	1.78 min
% trip time	9.7%
% all min	3.63%

Night
21:00 – 07:00

38.2 %
INCIDENCE

Trips	114,917
Trip share	2.1%
Avg episode	1.37 min
% trip time	6.9%
% all min	1.86%

FIGURE 3 · INCIDENCE COMPARISON

Night incidence is high — but proportional minutes tell another story

↑ Evening Rush peak

37.6% incidence with shorter episodes (1.42 min) — consistent with end-of-shift coordination calls.

! Night caveat

Only 2.1% of trips. May reflect a distinct subgroup — long-haul, overnight delivery, or emergency services. Treat as indicative.

SECTION 3.3 · RQ-2

Speed during phone-use trips

+3.1 mph

MEAN & MEDIAN SPEED GAP

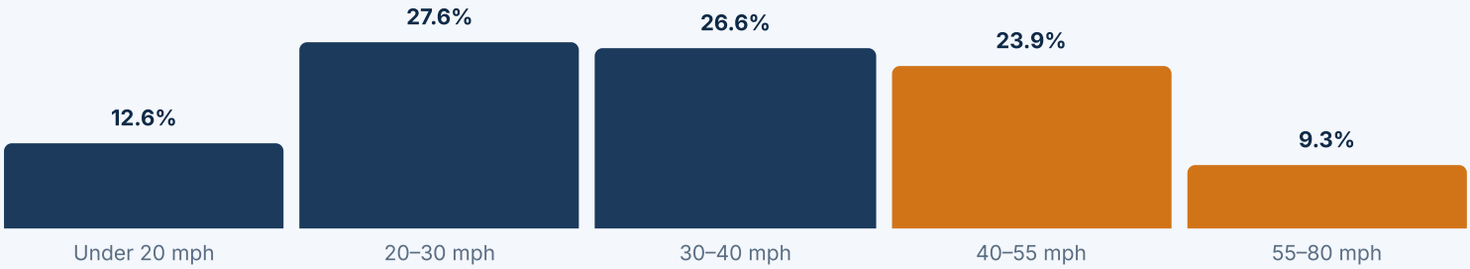
Phone-use trips run consistently faster

35.1 mph mean vs. 32.0 mph for all trips

CATEGORY	MEAN SPEED	MEDIAN SPEED
All trips	32.0 mph	30.1 mph
Phone-use trips	35.1 mph	33.2 mph
Gap	+3.1 mph	+3.1 mph

Phone-use trips show a consistent +3.1 mph premium in both mean and median speed. The most parsimonious explanation is a trip-type effect: longer, higher-speed trips provide more elapsed time during which phone interaction can occur. Shorter urban trips — with more stops, lower speeds, and less idle time — have less opportunity for phone interaction regardless of driver intent.

Speed bracket distribution of phone-use trips



Roughly **33% of phone-use trips occur at average speeds above 40 mph**. The spread suggests incidence tracks trip type rather than a distinct speed-seeking tendency — but the co-occurrence of phone use and higher speeds remains operationally significant: a driver interacting with their phone at 50 mph faces greater consequences from a momentary lapse than one doing so at 25 mph.

SECTION 3.4 · SECONDARY FINDING

Phone use while speeding

206,943

trips with phone use AND speeding

3.7% OF ALL TRIPS · 10.2% OF PHONE-USE TRIPS

~18 sec

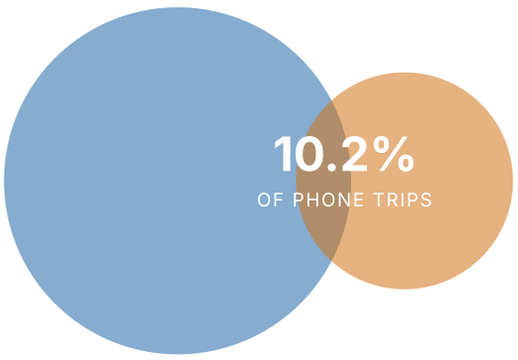
avg combined episode

≈ 0.30 MIN · 0.28 MI COVERED

METRIC	VALUE
Trips with phone use AND speeding	206,943
As share of all trips	3.7%
As share of phone-use trips	10.2%
Avg combined duration	0.30 min (~18 seconds)
Avg combined mileage	0.28 mi

Phone-use-while-speeding is relatively brief (approximately 18 seconds on average), but the combination represents the highest-risk behavioral state in the dataset. At highway speeds, 18 seconds of combined inattention covers roughly 0.3 miles. The seasonal concentration of this pattern — with July and August reaching 5.0%, 61–85% above Q1 rates — is explored in the next section.

FIGURE 6 **Overlap Between Phone Use and Speeding Events**



Phone Use during trip
2,024,122 trips
36.5% of all trips

Speeding while on phone
206,943 trips
3.7% of all trips

OVERLAP
10.2% of phone-use trips also involved speeding.

SECTION 3.5 · RQ-3

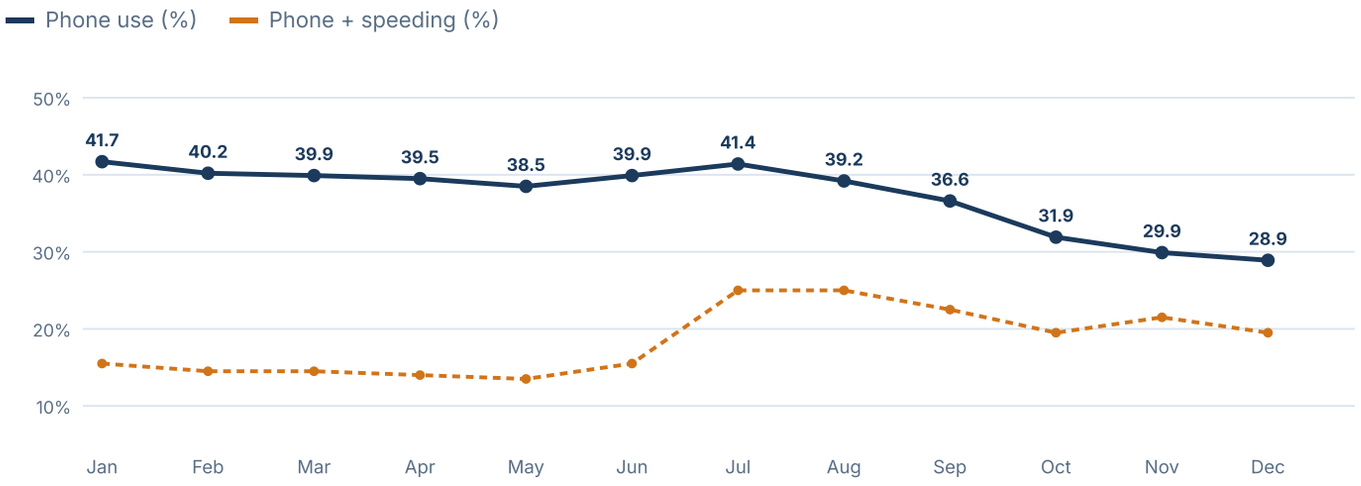
Monthly trend and seasonal patterns

Monthly data reveal a pronounced seasonal structure, with Q1 consistently showing the highest phone-use rates and Q4 the lowest.

MONTH	TRIPS	% WITH PHONE USE	% WITH PHONE + SPEEDING
January	290,220	**41.7%**	3.1%
February	329,376	**40.2%**	2.9%
March	402,851	**39.9%**	2.9%
April	399,869	**39.5%**	2.8%
May	531,311	**38.5%**	2.7%
June	443,073	**39.9%**	3.1%
July	385,445	**41.4%**	5.0%
August	448,381	**39.2%**	5.0%
September	532,187	**36.6%**	4.5%
October	610,558	**31.9%**	3.9%
November	554,103	**29.9%**	4.3%
December	618,499	**28.9%**	3.9%

☐ Highlighted: peak months ↑ JANUARY = ANNUAL PEAK FOR PHONE-USE INCIDENCE

Seasonal arc — Q1 high, Q4 low



January (41.7%) is the highest-incidence month of the year. Q1 overall sustains rates of 40–42%, declining gradually through spring and stabilizing in the upper 30s through summer. Q4 shows the sharpest contrast, ranging from 29% to 32% — a roughly 10-percentage-point drop from Q1 peaks.

The cleaner summer signal. July is not uniquely elevated for overall phone-use incidence (41.4% — comparable to January's 41.7%), but it is distinctively high for the phone+speeding combination: **5.0%, shared with August and 61–85% higher than the Q1 rate of 2.9–3.1%**. The phone+speeding signal is the cleaner indicator of elevated summer risk.

What drives this seasonal elevation is examined in the Discussion.

SECTION 4

04 Discussion

Fleet drivers show high but heterogeneous phone-use rates

A 36.5% trip-level incidence rate across 5.5 million commercial trips represents a substantial behavioral challenge for fleet operators. At the same time, the right-skewed duration distribution — with a median episode of just 0.73 minutes — suggests that the typical phone-use event is brief rather than sustained. Fleet safety programs that target high-frequency, short-duration interactions (notifications, quick glances, brief calls) may have more leverage than those focused solely on extended engagement.[2]

Time-of-day patterns support targeted intervention windows

Evening Rush Hour (18:00–20:00) shows the highest absolute incidence among the structured time windows, making it a natural focus for end-of-shift coaching and communication protocols. The Night finding — nominally high incidence but low proportional rate — cautions against over-interpreting raw incidence percentages without examining episode duration and trip context. Fleet managers should weight the proportional phone-use rate (share of driving minutes) alongside trip-level incidence when designing intervention thresholds.[3]

The speed association is real, but its source matters for policy

The +3.1 mph gap between phone-use and non-phone-use trips is consistent and robust. If the gap reflects trip-type composition, then targeting drivers on high-speed route types for phone-use coaching may be more effective than applying blanket speed thresholds. Route-type metadata — distinguishing urban delivery from highway transit, for example — would allow more precise interventions and is a natural direction for future analysis.

Summer phone+speeding rates demand attention

The July and August phone+speeding rate of 5.0% — 61–85% above the Q1 baseline — is the most actionable seasonal signal in the dataset. Preliminary examination of trip-level characteristics finds no meaningful difference between summer and Q1 phone+speeding events: mean trip distances are nearly identical (24.4 vs 24.7 miles), average speeds are indistinguishable (44.2 vs 44.1 mph), and combined episode durations are the same (0.32 minutes in both periods).

> The elevated summer rate therefore reflects a **higher frequency** of such events — more trips triggering the combination — rather than a qualitatively different trip type. Whether this represents a genuine seasonal behavioral shift or compositional changes in the summer driver pool cannot be determined from this dataset alone.

Regardless of mechanism, the combination represents the highest-risk behavioral state observed, and its seasonal concentration suggests that summer coaching campaigns and telematics alerts warrant prioritization for fleet operators who increase driver hours seasonally.[4]

Sensor-based detection fills a genuine measurement gap

Observational studies and self-report surveys systematically undercount phone use — drivers are unlikely to accurately recall distraction episodes, and roadside observers cannot capture in-cab behavior continuously.[5] Accelerometer and gyroscope detection provides objective, trip-level evidence that supports coaching conversations, policy enforcement, and program evaluation.

The sensor's focus on physical device handling also reduces false positives from hands-free use relative to methods that cannot distinguish held from mounted devices.[6] The trade-off is that voice-command and extended-glance distractions may be under-counted; future generations of detection that integrate audio cues, screen-state, or eye-tracking signals could complement the sensor approach.

05

SECTION 5

Conclusion

This analysis of 5,545,873 U.S. commercial fleet trips in 2025 documents phone interaction on 36.5% of trips, with meaningful variation across time of day, speed profile, and month of year. Evening Rush Hour and Q1 months carried the highest incidence rates; Q4 (October–December) represented a genuine behavioral low with rates roughly 10 percentage points below Q1 peaks.

The most distinctive risk signal is not overall phone-use prevalence but the phone+speeding co-occurrence rate, which peaks sharply in July and August at 5.0% — 61–85% above the winter baseline. This pattern suggests that summer fleet operations carry elevated compound-risk exposure that is not visible when examining phone use alone.

Practical priorities

Evening-hour coaching protocols

Focus end-of-shift communication policy on the 18:00–20:00 window where incidence peaks.

Summer campaign intensification

Prioritize phone+speeding interventions in July and August, when compound risk is 61–85% above baseline.

Telematics-calibrated alerting

Tune alerts to the sensor-based detection method — handheld interaction, not all phone activity.

For policymakers and researchers, the data reinforce the value of continuous telematics measurement as a complement to survey and observational methods, particularly for commercial driver populations where employer-mandated device deployment makes large-scale monitoring feasible.[7] Future work should incorporate trip-purpose metadata, route-type classification, and longitudinal driver-level tracking to move from descriptive associations toward causal inference and individualized coaching.

References

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DATASET & IMPRINT

5,545,873 U.S. commercial fleet trips, 17,346 anonymized drivers, January–December 2025. Collected via the Damoov SDK. All analysis conducted on aggregated, de-identified trip-level data. Individual driver data was not accessed or reported. Methodology and full summary statistics available upon request. For data partnership or methodology inquiries, visit damoov.com.