THE INFRASTRUCTURE FOR THE AI ECONOMY

Following the Lettuce

How the July 2026 Cyclospora Outbreak Moved US Restaurant Demand

A sector read first, one chain second: category traffic and spend, then Taco Bell and Chipotle

CARBON ARC MCP RESEARCH NOTE | August 11, 2026

Sector-wide in visits, Taco Bell-specific in the digital cohort, met by a margin-dilutive promo

500-700bps

Guided Taco Bell equity-margin compression (26.2% to 19-21%) likely cannot come from a apparent traffic dip. More likely follows from menu disruption and discounting; a $1 Mexican Pizza caused an app download spike on Jul 28.

Yum disclosure (exhibit 9)

Sector, not just Taco Bell

QSR foot traffic was -0.6% in the outbreak weeks, adjusted; fast casual (-2.9%) and casual dining (-2.2%) fell further, though casual dining has no direct, apparent recall link. The softness does not track specific outbreak exposure.

Taco Bell in context

Taco Bell foot traffic was -1.6% adjusted vs the peer basket at 0.0% adjusted (-3.8% vs -1.3% raw). In the Credit Card - US Neo panel, a younger-skewed cohort, it ran -16.6pp below the QSR category: a genuine outlier.

Not geographic, recovery TBD

Affected states did not underperform: the gap runs -0.4pp to +0.1pp and flips sign by grouping. Promo-driven app engagement rebounded fast; underlying demand recovery is not yet observable.

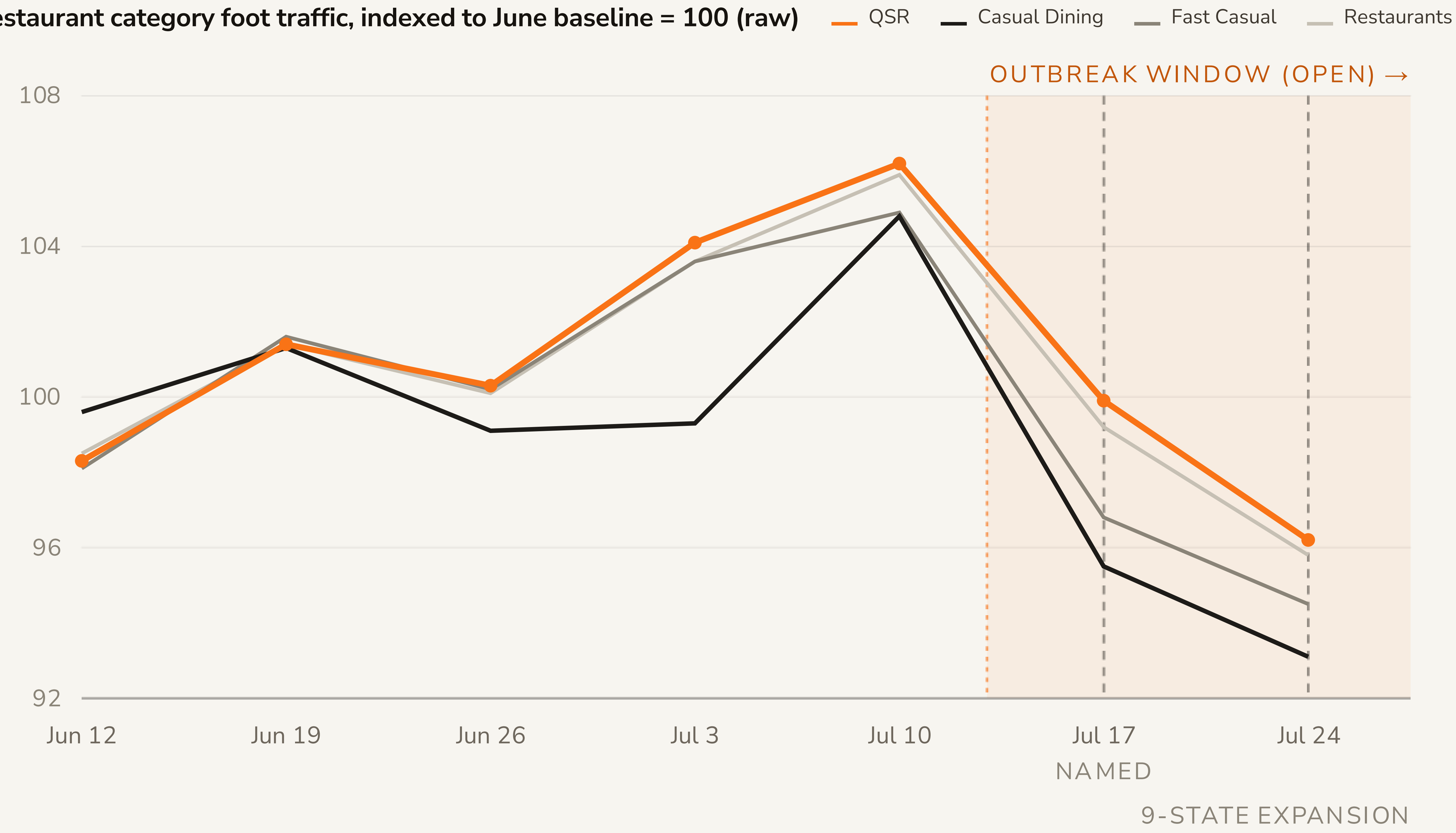
Cleanest brand-specific signal

Clickstream for Taco Bell ran +0.6% over Jul 17-31 vs its June baseline while the QSR category ran +10.7%: a roughly 10-point shortfall unique to the brand.

The softness does not line up with outbreak exposure

Casual dining (-2.2% adjusted) and fast casual (-2.9%) fell further than QSR (-0.6%), yet casual dining has no stated connection to a Taco Bell lettuce recall. That points to either a broader late-July consumer pullback that the outbreak sits inside, or that the outbreak initiated. Lines indexed to each category's June baseline = 100.

Restaurant category foot traffic, indexed to June baseline = 100 (raw)

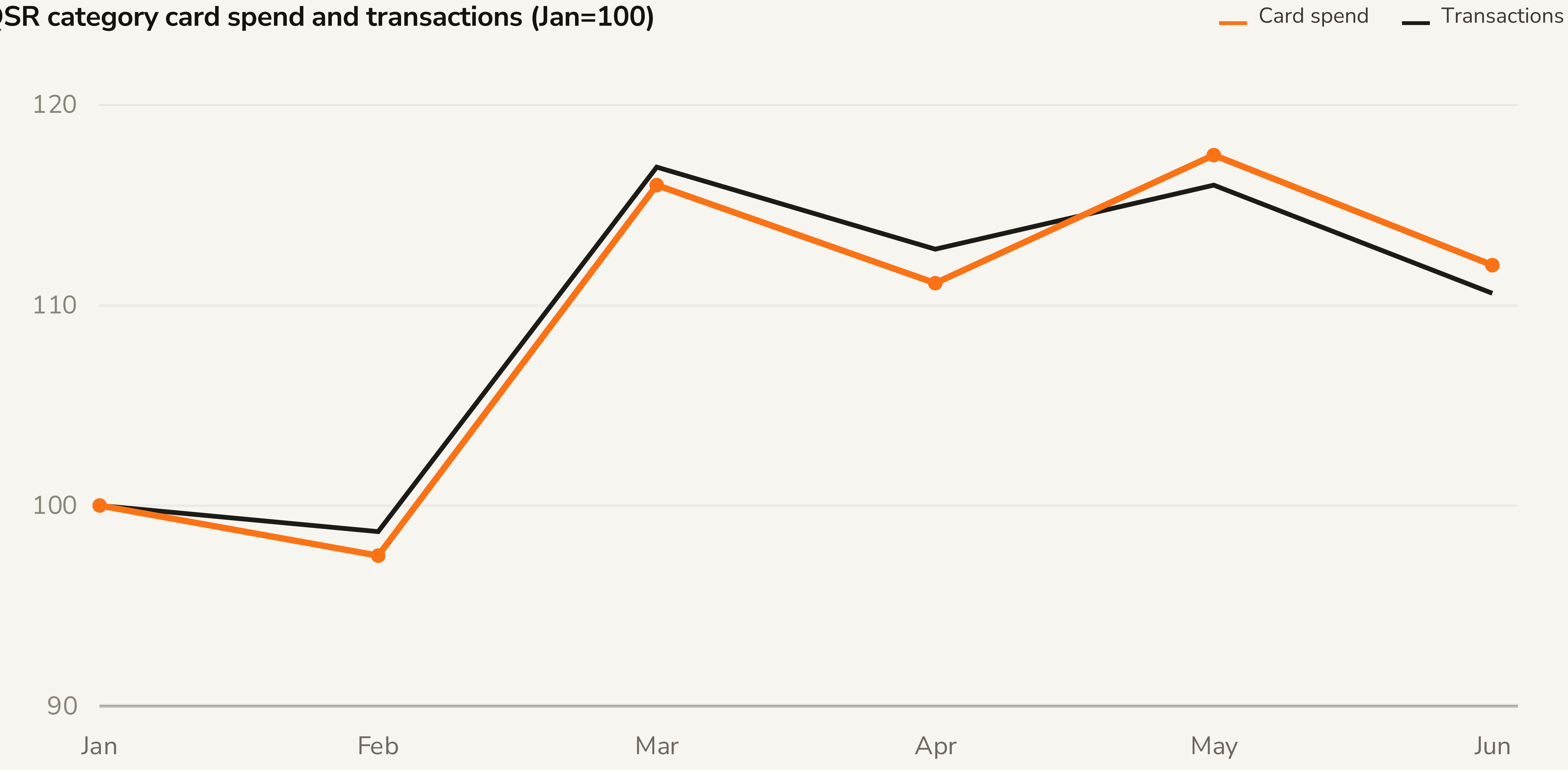


Source: Carbon Arc Foot Traffic - CA0060

Price: 14.97 tokens

Sector spend was healthy going in: credit card – US complete panel shows rising transactions, no weakness

QSR category card spend and transactions (Jan=100)



The Credit Card – US Complete Panel for the QSR category, monthly through June. Spend and transactions rose into spring and held. Average ticket is omitted: the panel's per-transaction value (about $23-25) does not reconcile to Taco Bell's roughly $10-12 published check, so no absolute dollar figure is shown. The event weeks are read on the Credit Card – US Neo asset later.

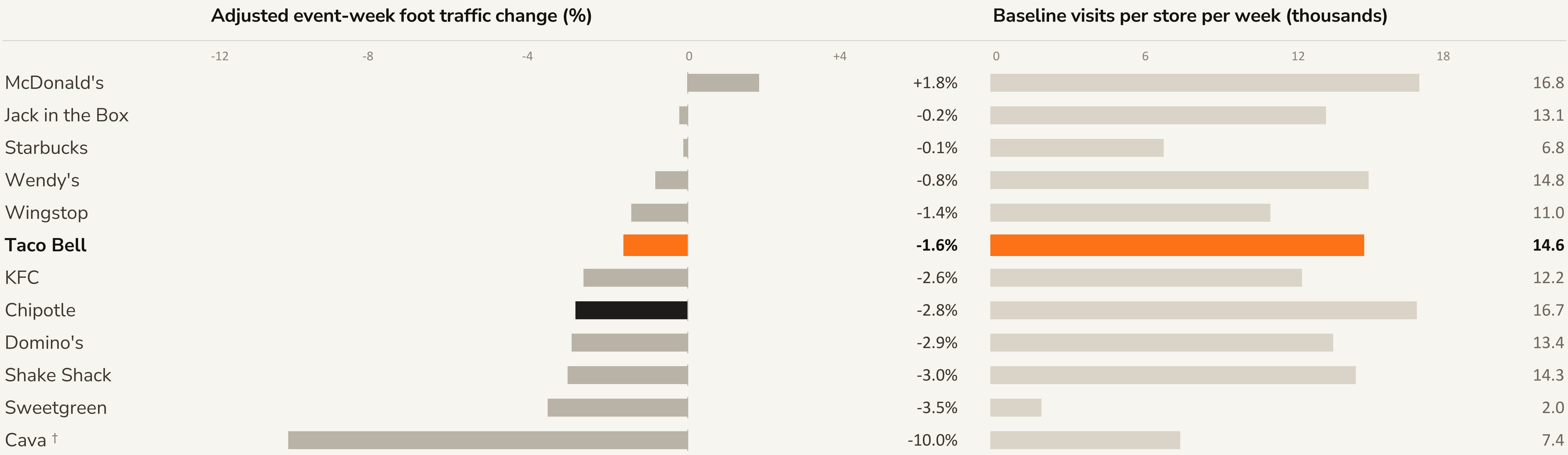
Source: Carbon Arc Credit Card – US Complete Panel - CA0056

Price: 9.98 tokens

EXHIBIT 5 · BRAND RANKING

Decompose to brands, normalized for store base

Left: seasonally adjusted event-week foot traffic change (peer basket flat; Taco Bell -1.6%). Right: baseline visits per store, which vary widely by format. Because store counts were constant across the six-week window, the adjusted percentage changes are identical whether measured on absolute visits or per store, so unit growth does not distort the event read.



† small sample

Source: Carbon Arc Foot Traffic - CA0060

Price: 48.54 tokens

Source: Carbon Arc Foot Traffic - CA0060 (store count 45863)

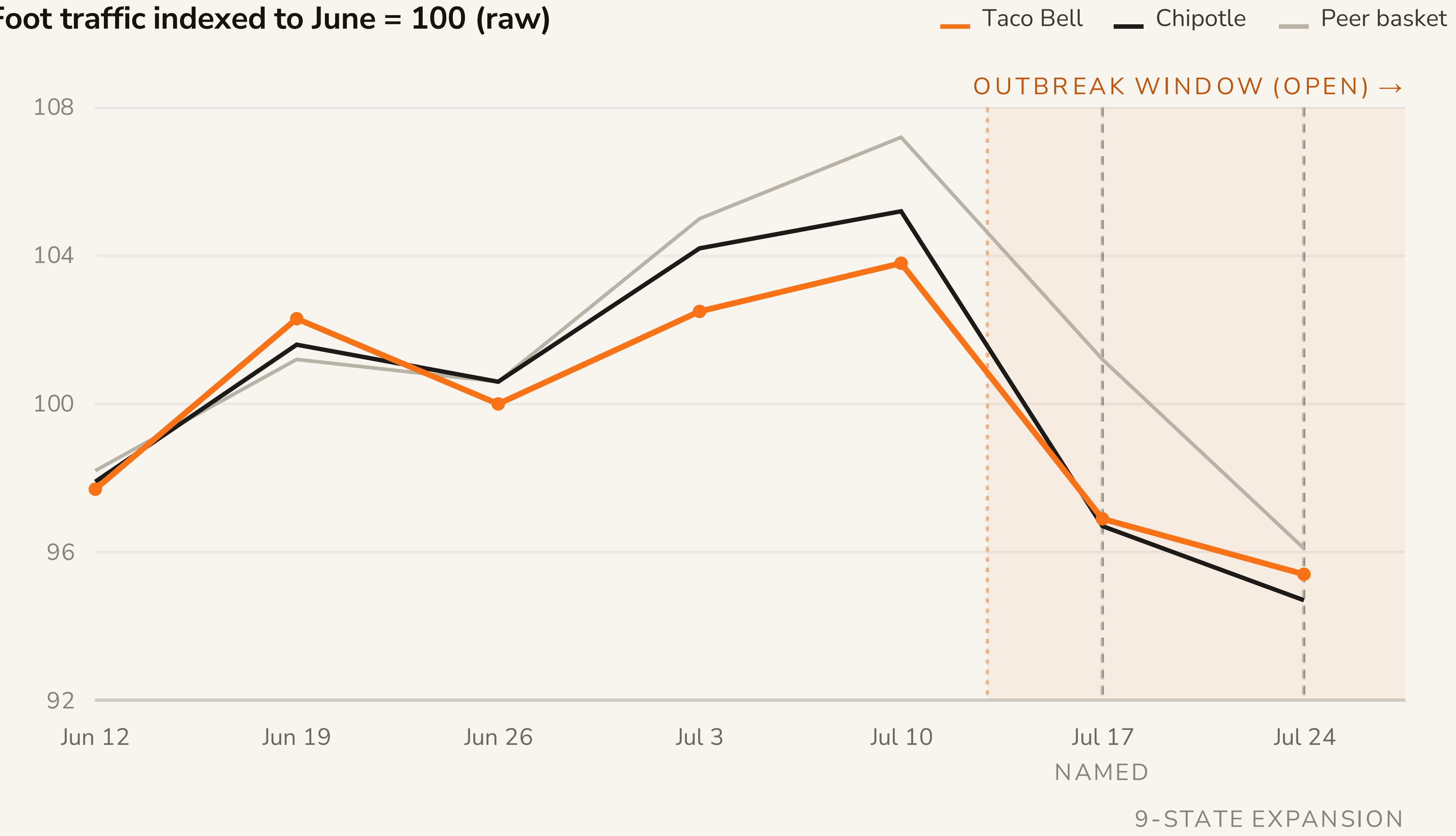
Price: 16.18 tokens

Cava (-10%) sits on just 422 stores and the smallest visit base in the set: treat it as small-sample and directional, not a precise estimate.

The named and the adjacent, benchmarked

Left: foot traffic indexed to each line's June baseline = 100 (raw; the basket is -1.3% raw, flat only after adjustment). Right: Credit Card – US Neo spend read as a spread to the QSR category measured inside the same panel. Reading each panel as a spread to its own benchmark nets out composition and coverage by construction.

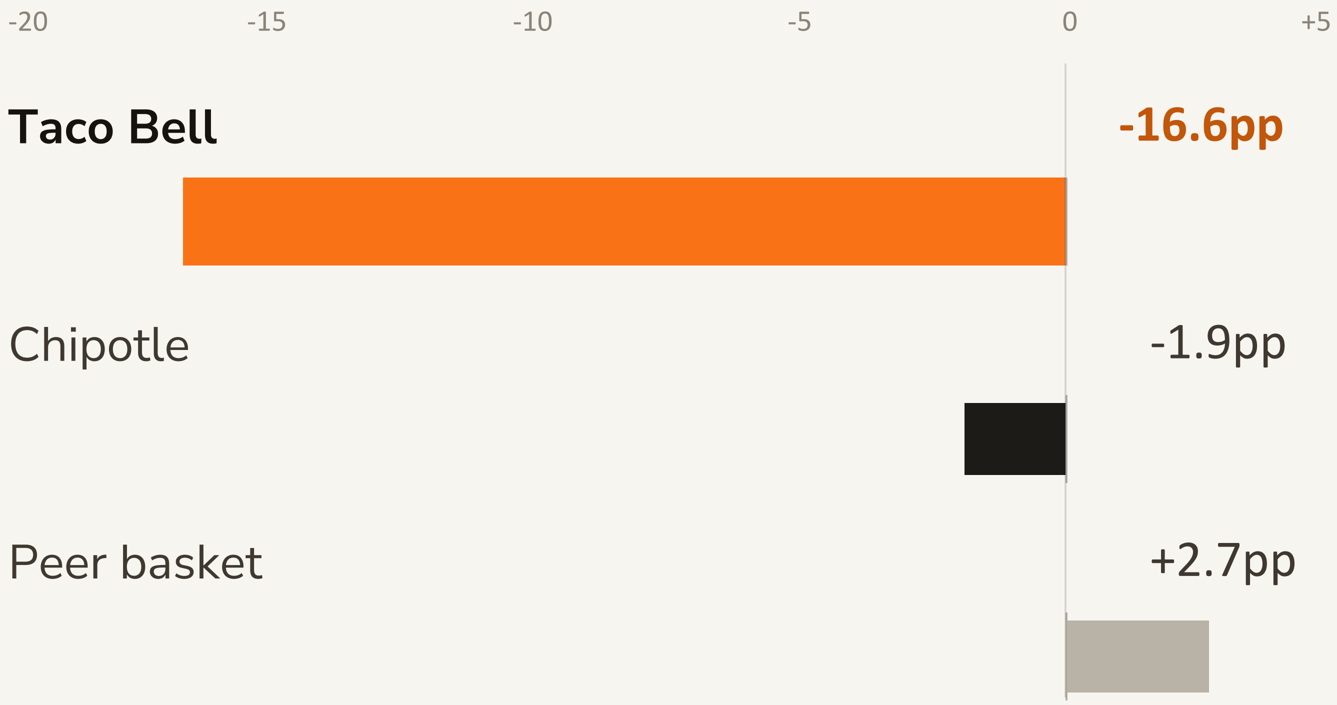
Foot traffic indexed to June = 100 (raw)



Source: Carbon Arc Foot Traffic - CA0060 (drawn from exhibit 5)

Price: 0.00 (billed on exhibit 5)

US Neo card spread to QSR category (pp), event weeks



Taco Bell ran -16.6pp below the QSR category in the event weeks, a clear outlier; the peer basket was +2.7pp. Chipotle’s Neo cohort was roughly flat; taken with its −2.8% visits, that is worth noting but rests on one cohort-skewed panel and should not be over-read.

Source: Carbon Arc Credit Card US Neo

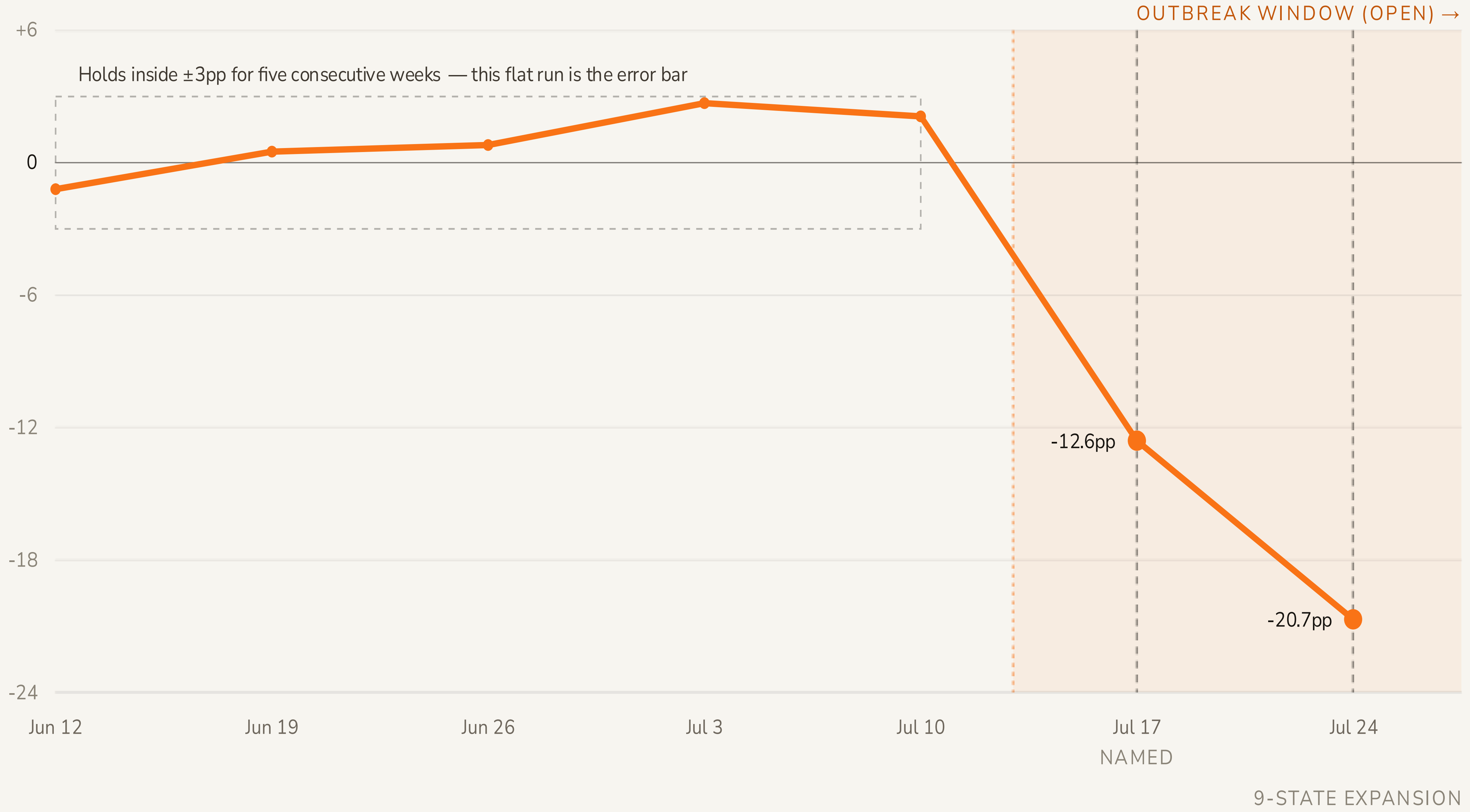
Price: 10.82 tokens

EXHIBIT 7 · HERO EXHIBIT

Reconciling the panels: who reacted, not a contradiction

Foot traffic calls the outbreak-week move unremarkable (-1.6% adjusted, all customers); the Credit Card – US Neo panel, which skews Millennial and Gen-Z, shows a sharp break. Read as a spread to the QSR category inside the same panel, Taco Bell tracks its benchmark within about +/-3pp through July 10, then drops to -13pp and -21pp in the two event weeks. That is a finding about WHO reacted: the young, coverage-exposed, easily-switching cohort, a minority of total footfall, which is a potential explanation for why total visits barely moved.

Taco Bell spend spread to the QSR category, Credit Card - US Neo panel (pp vs June baseline)



Source: Carbon Arc Credit Card US Neo (drawn from exhibit 6)

Price: 0.00 (billed on exhibit 6)

No geographic signature that survives a robustness check

STATE GROUPING AND BASELINE	AFFECTED	UNAFFECTED	DIFFERENCE (PP)
9 affected states, base Jun 12/19/26	-4.2%	-3.8%	**-0.39 pp**
5 named states, base Jun 12/19/26	-3.7%	-3.8%	**+0.12 pp**
9 affected states, base incl Jul 3	-4.8%	-4.4%	**-0.39 pp**
5 named states, base incl Jul 3	-4.5%	-4.4%	**-0.04 pp**

Taco Bell foot traffic, outbreak-affected states versus the rest of the country, under two state groupings (all nine; the five named first on July 17) and two baselines. The affected-minus-unaffected gap is tiny and flips sign, so the direction is inside the noise: no reliable geographic concentration.

-0.39 to +0.12 pp

The difference ranges from -0.39pp to +0.12pp across specifications. A localized demand hit in the affected markets is not detectable.

Source: Carbon Arc Foot Traffic - CA0060

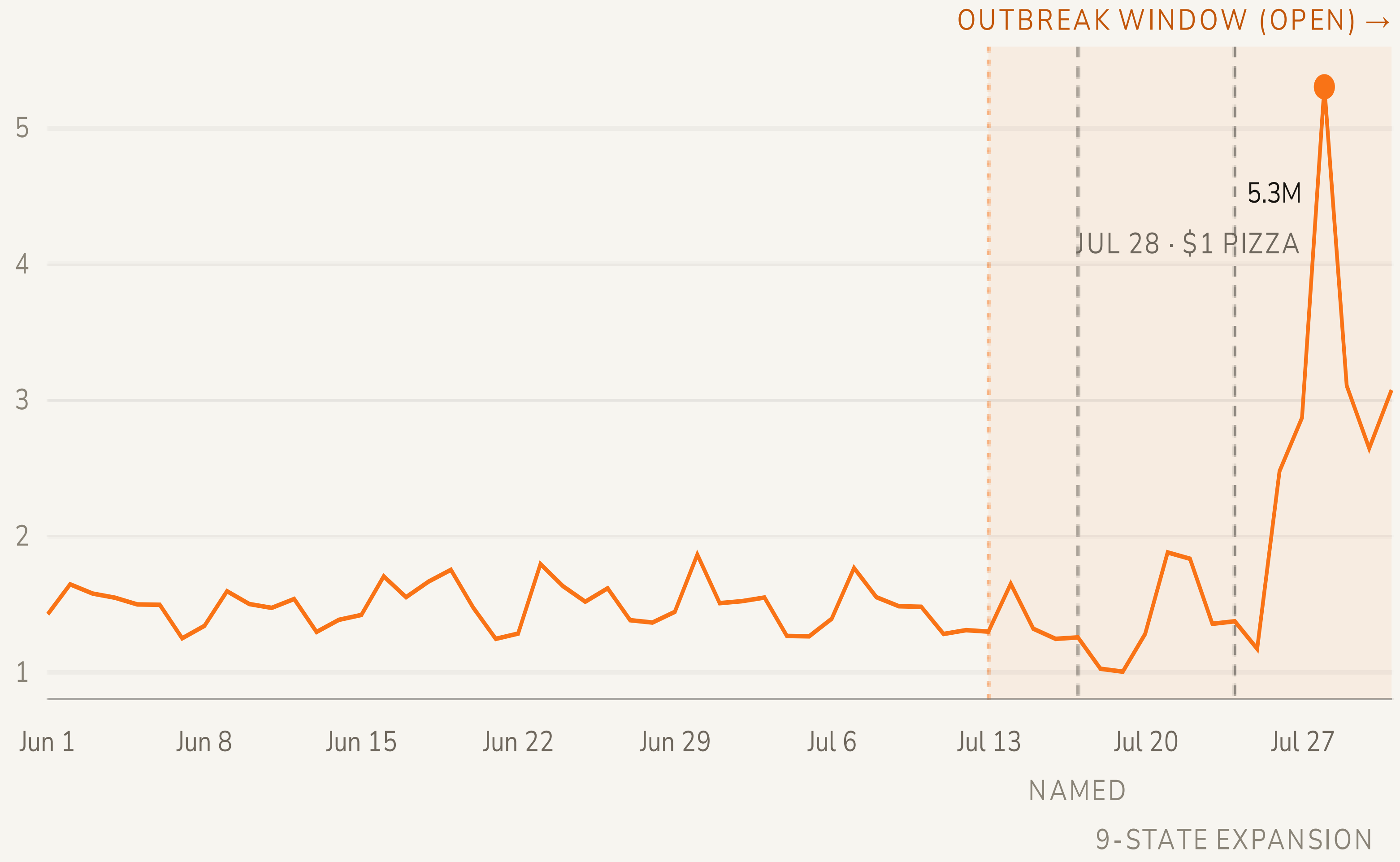
Price: 14.27 tokens

EXHIBIT 9 · THE RESPONSE

The digital response was fast, and it was promotional

Left: daily Taco Bell app users. A dip to ~1.0M on Jul 18-20 gave way to a record 5.3M on Jul 28, about 3.5x June, on a $1 Mexican Pizza Tuesday; app downloads ran ~11x. Right: over Jul 17-31, tacobell.com ran +0.6% versus its June baseline while the QSR category rose +10.7%, so attention held in absolute terms but lagged the category by about 10 points. This is promotional engagement, not evidence that brand perception recovered.

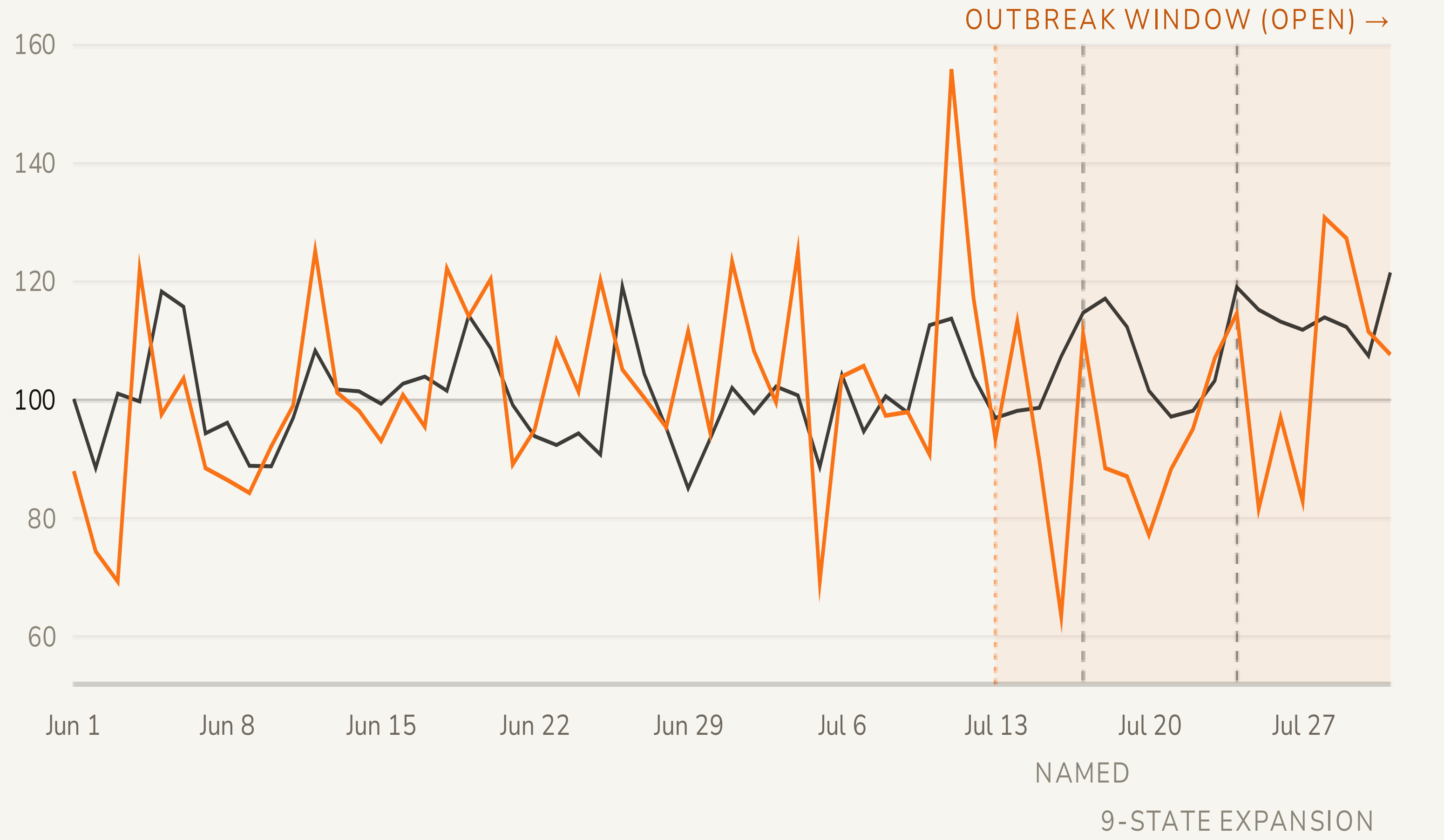
Taco Bell daily app users (M); app downloads ~11x on Jul 28 (not plotted)



Source: Carbon Arc App Intelligence - CA0054

Price: 9.98 tokens

Daily website traffic visits, indexed to June = 100



Source: Carbon Arc Clickstream - CA0030

Price: 9.98 tokens

EXHIBIT 10 · FORWARD VIEW

Forward view: implied Q3 scenarios, and what to watch

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Q3 SCENARIO	IMPLIED TACO BELL SSS	RANGE
Recovery persists	**-0.6%**	-1.1 to -0.1%
Recovery halves	**-1.3%**	-1.8 to -0.8%
Recovery stalls	**-2.0%**	-2.5 to -1.5%

> **Read: even the adverse case is a low-single-digit quarter hit to sales. The equity-margin guide (500-700bps) is a discounting and disruption story, not a demand story.**

Illustrative, panel-derived scenario arithmetic, not a forecast. It applies the disclosed -2% quarter-to-date run-rate over roughly four disrupted weeks, then varies the remaining nine weeks of the ~13-week quarter. Error band +/-0.5pp reflects the foot-traffic and state-split dispersion measured in this note.

NEXT HARD DATA POINT

Nov 3

Yum next reports. Panel coverage in this note ends Jul 28.

Source: derived from the disclosed -2% QTD comp and the foot-traffic and Neo panels in this note; no additional query. Assumptions in the audit workbook.

Forward view: what to watch

Monitor before Nov 3

01 Credit Card – US Neo young-cohort spread to QSR: does the -16.6pp gap narrow or widen through August.

02 Credit Card – US Complete Panel as July matures (~late Aug): confirms or revises the hit.

03 Foot traffic in August: return to baseline, or persistent softness.

04 App engagement after the LTO ends: sustained, or falls back.

05 Any second recall or further state expansion.

What would change the conclusion

- Foot traffic still down >2-3% into August: recovery stalls, real brand damage.
- Credit Card – US Neo spread to QSR still wider than -10pp in August: durable young-cohort defection.
- Matured Credit Card – US Complete Panel far worse than foot traffic: the 'visits unremarkable' read was wrong.

Source: derived from the disclosed -2% QTD comp and the foot-traffic and Neo panels in this note; no additional query.

EXHIBIT 11 · VERDICT GRID

Testing management's claims, with the reconciliation folded in

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CLAIM	VERDICT	WHAT THE CARBON ARC DATA SHOW
Yum: industry-wide, not specific to Taco Bell	MIXED	Half right: late-July softness is broad (casual dining -2.2%, no recall link), but Neo shows an incremental Taco Bell-specific young-cohort pullback (-16.6pp spread to the QSR category).
Yum: the impact is temporary	UNRESOLVED	Promo-driven app engagement rebounded, but that is not brand-perception recovery. Not observable pre-Nov 3.
Yum: footprint in more impacted markets	NOT SUPPORTED	Affected-minus-unaffected gap -0.4 to +0.1pp and flips sign. Margin guide dwarfs a 1.6% dip.
Yum: record app traffic and sign-ups	CONFIRMED	Jul 28 app users a 5.3M record (3.5x June); installs ~11x. The value promo landed.
Chipotle: we were not involved	TRUE, NOT IMMUNE	Not named, correct. Visits -2.8% adjusted (vs -200bps disclosed); its Neo spread to QSR -1.9pp, roughly flat.
Starbucks: no comment	SUPPORTED	Foot traffic -0.1%, flat. No measurable effect.

> **Reconciliation: Taco Bell foot traffic -1.6% adjusted vs the -2% QTD comp (aligned); Chipotle -2.8% vs -200bps (in line). Demand panels match the disclosures; the margin guide likely does not follow from demand.**

Source: Carbon Arc Foot Traffic - CA0060, Credit Card – US Complete Panel - CA0056 and US Neo, App Intelligence - CA0054; company disclosures. Synthesis of exhibits 3-8; no additional query.

Appendix: data assets, method, and query cost

DATA ASSETS

Foot Traffic	CA0060
Credit Card – US Complete Panel	CA0056
Credit Card – US Neo	CA0086
App Intelligence	CA0054
Clickstream	CA0030

METHOD

Event weeks ending Jul 17 and Jul 24 vs a June baseline (Jun 12, 19, 26), seasonally adjusted against 2024 and 2025. Partial and July 4 weeks excluded. Outbreak window opens Jul 13, the last CDC-reported illness onset date and the approximate start of public awareness, and stays open through the Jul 28 cutoff because the event is ongoing; Jul 17 (naming) and Jul 24 (expansion) are marked.

Convention: each panel is read as a spread to its own category benchmark (foot traffic vs the peer basket and vs Taco Bell's own states; Neo vs the QSR category), so panel-level composition, coverage and growth effects net out by construction.

Peer basket: McDonald's, Wendy's, Domino's, Jack in the Box, Wingstop, Starbucks. Credit Card – US Complete Panel used for the settled window, US Neo for event weeks; foot traffic is T+5 days.

QUERY COST LEDGER (TOKENS), MARGINAL

Exhibit 3: category foot traffic (2026, 2025, 2024)	14.97
Exhibit 4: category card spend + transactions	9.98
Exhibit 5a: brand foot traffic panel (2026, 2025, 2024)	48.54
Exhibit 5b: store count	16.18
Exhibit 6b: Credit Card – US Neo benchmark	10.82
Exhibit 8: Taco Bell by state (9)	14.27
Exhibit 9a: app users + installs	9.98
Exhibit 9b: clickstream tacobell.com + QSR	9.98
Total Cost	**134.72**

Each exhibit's price is its marginal query cost. A query serving more than more than one exhibit is billed once at first use and drawn at no cost cost thereafter, so slide prices sum to this total. Full code and pulled data pulled data are in the companion audit workbook.