COLUMBIA | ECONOMICS

Tipping the Tax
How Government Surcharges Become Gratuities

2026 WORKING PAPER
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New York taxi riders tip an extra $15–21 million a year on government surcharges: eleven cents for every statutory dollar, a gratuity no legislature enacted.

01 • INTRODUCTION

Payment screens suggest **20/25/30%**, computed on the **fee-inclusive total**: every line item on the meter, whoever receives it.

3:58 PM • NO SURCHARGE
20% button: **$4.34**

→

4:02 PM • +$2.50 IN THE BASE
20% button: **$4.84**

RESEARCH QUESTIONS

1. By how much does an additional **statutory dollar** on the meter change the **average credit-card tip**?
2. Is that pass-through **constant** across doses, fare structures, and sources of identifying variation?

CONTRIBUTION

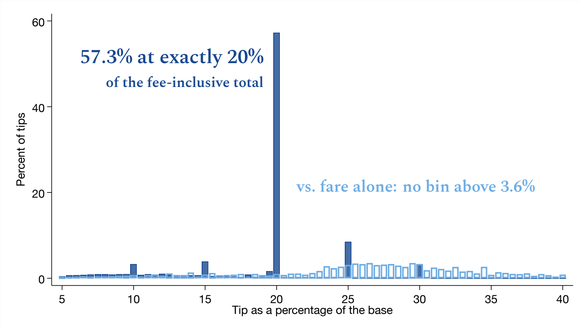
Defaults move tips (**Haggag–Paci 2014**) • unseen taxes are under-noticed (**Chetty–Looney–Kroft 2009**) • suggestion bases differ across vendors (**Thakral–Tô 2026**)

THIS PAPER ADDS
The **first causal per-dollar estimate** of government charges passing into tips, from statutory switches by **clock**, **calendar**, and **map**.

02 • DATA AND DESCRIPTIVE EVIDENCE

Riders do not tip on the subtotal;
they tip on the fee-inclusive total.

2.18M June-2025 tips, two candidate bases • spikes at **20/25/30% of the fee-inclusive total** • no spike against the fare alone



The tip base is identifiable from behavior alone. 57.3% of card tips sit at exactly 20% of the fee-inclusive total, with spikes at 25 and 30 (navy bars); the same tips against the fare alone (outline) leave no bin above 3.6%. June 2025, standard-rate card trips, half-point bins.

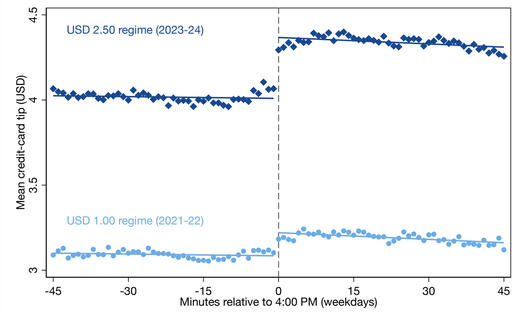
Data. NYC TLC yellow-cab universe • **43M standard-rate card trips** in minute cells, Sep 2021–Sep 2024 • JFK flat fares separate • zone-by-month panels for the 2019 and 2025 fees • tips observed on card payments only

03 • EMPIRICAL STRATEGY

Rush surcharge on at **exactly 4:00 PM**, by pickup minute • weekends and exempt holidays: same clock, **no surcharge** • fares also jump at 4 PM, so we difference the discontinuities:

$$T_{dm} = \alpha + \pi D_m + \omega W_d + \delta\,(D_m \times W_d) + \gamma B_{dm} + f(r_m) \times W_d + \varepsilon_{dm}$$

D_m: past the cutoff • W_d: weekday • B_{dm}: **non-surcharge base** (metered fare + fixed fees) • $f(r_m)$: local-linear minute trends, by day type. Cells weighted by card trips; SEs clustered by date (pickup zone for the toll). $\delta \div$ **statutory dose** = pass-through per legislated dollar.

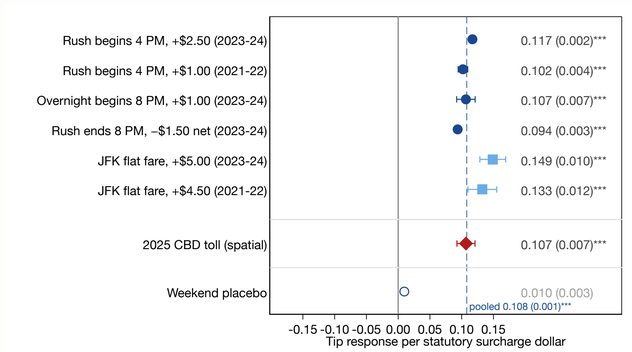


04 • RESULTS

11¢ per legislated dollar

IN EVERY DESIGN BELOW

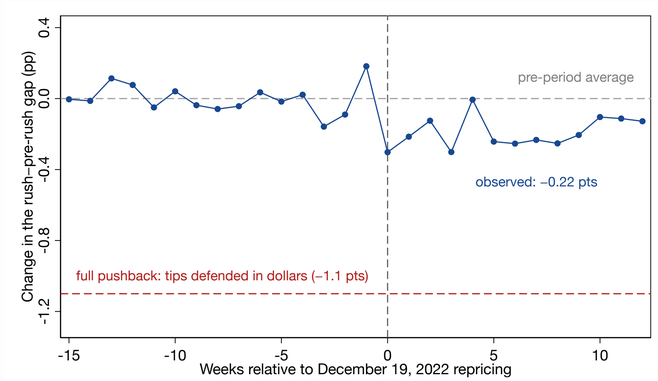
Meters apply the surcharge imperfectly: **77¢ of each legislated dollar** reaches the bill • per billed dollar, tips rise **14¢**, four-fifths of the 17.4% fare-tip rate



Estimates per statutory dollar, standard errors in parentheses. $^{***}p < 0.01$. Clock designs use weekdays, except Overnight begins 8 PM, estimated on **weekends**; the rush-ends dose is **net** of overnight switching on. Unstarred rows are the falsification set. SEs clustered by date; by pickup zone for the toll.

05 • ROBUSTNESS

Dec 19, 2022: rush surcharge **+$1.50** ($1.00 → $2.50) • tips defended in dollars predict −1.1 pts • observed **−0.22 pts**, immediate, permanent • riders absorb the charge



The rush-window premium barely moves at the repricing. Weekly gap between the rush and pre-rush tip rates, shown as the change from its pre-period average. The red benchmark is full pushback, tips defended in dollars; the observed fall is **0.22 points against 1.1**.

Six sources of quasi-experimental variation

4 PM cutoff • 8 PM cutoffs • holiday calendar • Dec 2022 repricing • JFK flat fare • 2025 toll boundary

converge on 0.094–0.149 per statutory $, pooling to **0.108 (0.001)**

CHECK	OUTCOME
Quantity margins (retiming, cash, demand)	all null
Placebo cutoffs, 3:15 and 5:00 PM	null, both stages
Permutation over 60 cutoffs	none reaches the estimate
Exempt-holiday counterfactual	replicates weekends (0.096/$)
MDE (2.8×SE), six designs	0.005–0.039 per $

06 • CONCLUSION

11¢ per legislated dollar, stable across six designs • percentage habits on a fee-inclusive base, no re-optimization

$141M/yr
OF GOVERNMENT CHARGES IN THE TIP BASE, GENERATING

$15–21M/yr
IN UNLEGISLATED GRATUITIES

ignoring tips misstates the incidence of these charges

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