THE UNAVOIDABLY EMPIRICAL FOURTH AMENDMENT:
A CASE STUDY OF KANSAS V. GLOVER

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INTRODUCTION

On April 28, 2016, Sheriff’s Deputy Mark Mehrer pulled over a pickup truck based on a single known fact: the truck was registered to an unlicensed driver. The State of Kansas prosecuted the truck’s driver, Mr. Charles Glover, for operating the vehicle with a revoked license. Mr. Glover, in turn, filed a motion to suppress, in which he alleged that the stop itself was unconstitutional and that all of the ensuing fruits — including the officer’s

* Professor of Law, Harvard Law School. This Article is adapted from a brief recently filed with the United States Supreme Court. See Brief for Professor Andrew Manuel Crespo as Amicus Curiae in Support of Affirmance, Kansas v. Glover, 139 S. Ct. 1445 (2019) (mem.) (No. 18-556), 2019 WL 4256217. The substance and structure of that brief is reproduced here, with modest stylistic adjustments. A number of colleagues offered valuable feedback on the brief, which, by convention, could not be adequately acknowledged then, but thankfully can be now: Paul Belonick, Nikolas Bowie, Bennett Capers, Genevieve Lakier, Daphna Renan, Abby Shafroth, Ric Simmons, Jocelyn Simonson, John Rappaport, Jonathan Witmer-Rich, and David Zions all offered very helpful comments. Most especially, Jim Greiner, Ryan Halen, and Crystal Yang deserve special thanks for generous and thoughtful insights offered over multiple drafts. The brief (and this Article) were a shared labor with my student, Gavan Duffy Gideon, who provided invaluable research assistance, though of course any remaining errors are entirely my own.
observation of Mr. Glover sitting behind the wheel — should thus be excluded from evidence under the Fourth Amendment.

Unlike many Fourth Amendment cases, the reasonableness of the stop in this case turns on a straightforward, empirical question: How often is the sole fact known to an officer when he initiates a stop actually associated with illegal behavior? As it turns out, the State of Kansas has access to data that could answer that question in Mr. Glover’s case. Indeed, the State could have presented such data during a routine suppression hearing held on Glover’s motion to suppress. The State opted instead, however, to draft a stipulation of facts that constitutes the case’s entire factual record, and that conspicuously omits any empirical support for the central factual claim that the State has advanced throughout the life of the case: the claim that vehicles observed to be registered to unlicensed owners are likely being driven by those unlicensed individuals — as opposed to some other authorized driver, such as the registered owner’s spouse, family members, or friends.

Given this central omission from the stipulation of facts, the Kansas trial court held that the prosecution failed to meet its burden of proof and deemed the fruits of the stop inadmissible — a decision unanimously upheld by the Kansas Supreme Court. Challenging those rulings, the State of Kansas asked the U.S. Supreme Court to intervene, which it did, granting the State’s petition for certiorari and hearing oral argument in the case earlier this year.

In its briefing to the Supreme Court, Kansas (aided by various amici curiae) essentially asks the U.S. Supreme Court to fill in the facts that are missing from the State’s stipulation — and to do so in the most unusual way: Rather than examine the inherently local empirics of the factual question at issue, Kansas wants the Court to answer that question by issuing a nationwide rule of law.

But that is not how the Fourth Amendment works. Rather, the Fourth Amendment inquiry, at its core, is all about facts. In many cases, those facts depict a “multi-faceted” “mosaic” that judges must assess by applying their commonsense intuitions to the totality of the circumstances.¹ Kansas v.

Glover, however, turns on “one fact and one fact alone.”\(^2\) And that makes an important difference. For when the government relies “on a single factor to justify stopping [a] car,” the only rational, commonsense way to evaluate the constitutionality of that stop is to consider the underlying statistical inference upon which the government’s assertion rises and falls.\(^3\)

That statistical inference often cannot be intuited. It requires data. And just as importantly, those data will frequently vary from one set of circumstances to another. In Kansas v. Glover, for example, two key data points likely influence the answer to the question presented: the average number of people authorized to drive a typical car, and the average rate at which suspended drivers stop driving. Those data points, however, vary substantially from one location to another, given the widely divergent driving needs and practices of people in urban, suburban, and rural settings. There is thus no way to answer the inherently factual question at the heart of the case with a single, nationwide rule of law. Rather, the only commonsense way to answer that question is to consider the underlying facts about how drivers actually behave in the relevant settings.

Fortunately, these are knowable facts. Indeed, the data required to answer the question presented in Kansas v. Glover could easily have been collected and presented by the State during proceedings in the trial court. Unfortunately, however, the State did not put any of that data into the record, opting instead to draft a stipulation that conspicuously omits any of the key factual information needed to assess its core assertion.

As a matter of black letter law, that should make Kansas v. Glover an easy case. “If the party who has the burden of producing evidence does not meet that burden, the consequence is an adverse ruling on the matter at issue.”\(^4\) In Kansas v. Glover, there is no question that the burden of proof lies with the State. The State’s failure to include any pertinent facts in its stipulation thus ends the inquiry, just as the Kansas Supreme Court held.\(^5\)

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\(^4\) Wayne R. LaFave, SEARCH & SEIZURE §11.2(b), at 49 (5th ed. 2012).

\(^5\) See State v. Glover, 422 P.3d 64, 72 (Kan. 2018), cert. granted, 139 S. Ct. 1445 (“In
Indeed, the central irony of *Kansas v. Glover* is that, while the prosecution made a fatal mistake by failing to include any pertinent facts in its stipulation, it very well could have won the case had it simply proceeded in the ordinary fashion and presented evidence to support its claim during a routine suppression hearing. Notably, such evidence could have easily been collected and presented to the trial court — via the very same laptop that the arresting officer used to run Mr. Glover’s license plate. With the click of a button, that dashboard computer could have been used to gather and report all of the information needed to determine whether the stop was, in fact, supported by reasonable suspicion.

Even without that easily obtainable data, however, the State could still have prevailed in the lower courts had it simply presented other readily available and routinely produced evidence to support its claim. The State, for example, could have produced studies describing the relevant driving statistics — as it and its *amici* subsequently (and impermissibly) attempted to do for the first time in their briefing to the Supreme Court. Alternatively, the State could have called Officer Mehrer to the stand and asked him how many times vehicles that he has personally pulled over were being driven by their unlicensed registered owners — the key statistic of interest.

The State’s failure to elicit such testimony or any other relevant evidence in support of its claim ought to be the determinative point in the Supreme Court’s analysis. Facts matter, most especially in judicial proceedings. For that reason alone, the State’s failure to produce any relevant facts during the lower court proceedings should resolve the case. That unusual litigation error, however, need not — and ought not — doom *other* stops that proceed under similar circumstances. Rather, if such stops are supported by an adequate factual foundation, grounded in readily available data, they should pass constitutional muster.

I. **The Centrality of Facts in the Fourth Amendment Analysis**

At its core, the Fourth Amendment poses a straightforward substantive question. Are “the facts and circumstances” known to an officer when he
initiates a search or a seizure “sufficient in themselves to warrant” that intrusion?\textsuperscript{6} As the word “facts” in that sentence makes clear, this inquiry is an empirical one.\textsuperscript{7} Courts assessing the constitutionality of a search or seizure must therefore resolve two basic questions in every case: How likely is it that a crime is being committed? And is that likelihood strong enough to justify a search or a seizure? \textit{Kansas v. Glover} is about the first of these two questions — the starting point for the Fourth Amendment analysis.\textsuperscript{8}

In many cases, judges answer that question by applying their “practical, common-sense judgment” to the “totality of the circumstances” at hand.\textsuperscript{9} Indeed, judges often have no choice but to rely on their commonsense intuitions, because “in many instances the factual ‘mosaic’ analyzed for a reasonable suspicion determination” will be so rich and case-specific that it eludes a more fixed and “neat set of legal rules.”\textsuperscript{10}


\textsuperscript{7} See Josh Bowers, \textit{Probable Cause, Constitutional Reasonableness, and the Unrecognized Point of a “Pointless Indignity,”} 66 STAN. L. REV. 987, 999 (2014) (describing the Fourth Amendment as “designed to ensure that the state can establish sufficiently the \textit{empirical fact} of legal guilt” before it curtails a person’s liberty); cf. Brief for the United States as Amicus Curiae, Supporting Petitioner at 5, \textit{Glover}, 139 S. Ct. 1445 (No. 18-556), 2019 WL 2635895 [hereinafter Brief for the United States] (arguing against a holding that “would not be empirically justified”).

\textsuperscript{8} See \textit{Ornelas v. United States}, 517 U.S. 690, 696 (1996) (marking the Fourth Amendment’s two inquiries). I elaborate on the relationship between these questions and other issues discussed in this Article in a forthcoming piece. See Andrew Manuel Crespo, \textit{Probable Cause Pluralism}, 129 YALE L.J. (forthcoming 2020), bit.ly/PCPluralism. For present purposes, it is enough to note that the question of how to measure the State’s proof is distinct from (and precedes) the question of how much proof is enough, which is not squarely presented in \textit{Kansas v. Glover}. See \textit{Glover}, 422 P.3d at 72 (“[T]he State did not present any . . . evidence here, so the question of what evidence is necessary is not before us.”). The State’s claim that Glover seeks to “transform[] the rule of reasonable suspicion into something akin to (or greater than) probable cause” thus lacks merit, as requiring a factual claim to be supported by proof says nothing about how much proof will suffice. Brief for the Petitioner at 7, \textit{Glover}, 139 S. Ct. 1445 (No. 18-556), 2019 WL 2549744.


Sometimes, however, the very nature of the inquiry at issue in a given case resists such an appeal to judicial intuition, precisely because there is no “totality” of the circumstances to consider but rather only one circumstance — one fact — driving the analysis. In that subset of cases, the only commonsense way to evaluate the claim is to consider the basic statistical inference that the claim entails. Crucially, however, those statistics will often vary across scenarios or from one place to another, as they do in Kansas v. Glover. As a result, the core factual question at the heart of the case simply cannot be answered by the nationwide rule of law that Kansas has proposed to the Court.

A. The Relationship Between “Commonsense” and Statistical Reasoning When Assessing Empirical Realities

As Kansas rightly observes in its briefing to the Supreme Court, the Glover case “cleanly presents [a] Fourth Amendment question unobscured by a mosaic of variables.”11 And as the seventeen States appearing before the Court as amici curiae rightly note, the case’s simplicity is significant, because it means that the constitutionality of the challenged stop rises and falls on “the probabilities associated with a simple, but frequently recurring set of facts.”12 Those probabilities, however, cannot reliably be intuited by common sense. They require “empirical and statistical data.”13

To appreciate this essential point, consider first a basic example, drawn from a real case. Imagine that a police officer chases a fleeing robber into a hotel with twenty-five rooms but loses sight of the suspect before seeing which room he enters.14 In such a case, the lawfulness of the officer’s decision to burst into any one of those rooms will turn entirely on the “odds favoring discovery of the suspect in [that] room.”15 And because those odds turn on just one fact (the number of rooms), there is only one

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11 Reply Brief of Petitioner at 6, Glover, 139 S. Ct. 1445 (No. 18-556).
12 Brief of Oklahoma et al., supra note 10, at 5.
13 Id. at 2; see Crespo, supra note 8 (manuscript at 12–28).
14 Cf. United States v. Winsor, 816 F.2d 1394, 1398 (9th Cir. 1987).
15 Id.
"commonsense" way to describe them: The likelihood that the robber is in one of those twenty-five rooms is one in twenty-five, or four percent.16

As this example shows, while it may often be wise “to avoid framing the question of probable cause [or reasonable suspicion] in terms of precise statistics,” there will be “some cases” for which “such a framework must be” applied.17 Kansas v. Glover is precisely such a case. To see why, consider now two more examples that more closely track Glover’s facts.

First, imagine that instead of conducting a license-plate check, Officer Mehrer had pulled Mr. Glover over for driving a 1995 Chevy pickup truck — on the theory that this type of truck is often driven by people with suspended licenses. Note that this theory might well be true. It is, after all, entirely possible that the factors that contribute to drivers’ licenses being suspended — including an inability to pay government-imposed debts — correlate strongly with driving a twenty-five-year-old vehicle that is well suited to manual labor.18 But of course, the assertion might also not be true at all. Driving a 1995 Chevy pickup truck — or a red pickup truck, or a minivan, or any other type of vehicle — might not signal anything at all about whether that vehicle is being driven by someone with a suspended license, or may have only a very weak correlation to such a conclusion.19

16 Cf. Kentucky v. King, 563 U.S. 452, 465 (2011) (noting that if an officer loses a suspect in a hallway with only two doors, there will be “a 50% chance that the fleeing suspect ha[s] entered the apartment on the left rather than the apartment on the right”).


18 Cf. NAT’L CTR. FOR STATE COURTS, TRENDS IN STATE COURTS: FINES, FEES, AND BAIL PRACTICES 20 (2017) (noting that “[m]illions of individuals across the United States” have had their licenses suspended due to their inability “to pay fines, fees, and surcharges assessed in traffic or criminal cases”).

19 Kansas does not argue that the model of respondent’s truck is relevant here. See Brief for the Petitioner, supra note 8, at 2.
Here, though, is the key point: The relationship between the single observed fact (1995 Chevy pickup) and the asserted inferential conclusion (driving without a license) is knowable. All that is required to pin that inference down is some sufficiently reliable information about the underlying statistics: How often are 1995 Chevy pickup trucks driven by people with suspended licenses? That is a question to which there is an answer. Not some intuited, “feels right” answer, but an actual, real answer, grounded in concrete data that could be presented to a judge reviewing the claim. Absent such data, however, there is no reliable commonsense way to divine the answer. One needs to know the facts.

Notably, the Supreme Court has appreciated this point before, in a case largely indistinguishable from the pickup truck example just described. In *United States v. Brignoni-Ponce*, the Court considered the constitutionality of a traffic stop conducted near the southern border in which “the officers relied on a single factor to justify stopping [the] car: the apparent Mexican ancestry of the occupants.” According to the prosecution in that case, that single fact reliably indicated that the occupants of the car “may be aliens [subject to] questioning about their citizenship and immigration status.” But the Court rejected that contention — because the underlying statistics did not support it. Rather, as the Court noted, census data showed that of the millions of people “of Mexican origin” living in border states at that time, the percentage who were “registered as aliens from Mexico” ranged from 8.5% to 20.4%.

Drawing on this publicly available data, the Court went on to issue a holding grounded directly in statistical reasoning: The “single factor” cited by the prosecution in support of the stop, “standing alone,” was insufficient, because while “[l]arge numbers of native-born and naturalized citizens have the physical characteristics identified with Mexican ancestry,” only “a relatively small proportion of them are aliens.”

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20 *Cf. infra* Part III (discussing data availability).
22 *Id.* at 885–86 (emphasis added).
23 *Id.* at 883.
24 *Id.* at 886 n.12.
25 *Id.* at 885–87.
given person of Mexican ancestry is an alien” thus did “not justify stopping all Mexican-Americans to ask if they are aliens.”

This same logic applies to, and clarifies, the central question in Kansas v. Glover: What is the “likelihood” that the “single factor” cited by the State (a vehicle’s being registered to an unlicensed driver) corresponds to the alleged illegal activity (that vehicle’s being driven by the unlicensed owner)? And as in Brignoni-Ponce, the answer to that question should, and logically must, turn on the “proportion” of vehicles observed to be registered to unlicensed owners that are in fact driven by those owners when pulled over.

There is just one problem. The State has offered the Supreme Court no information about this essential proportion. And unfortunately, no amount of commonsense reflection will yield the missing data.

To appreciate this determinative point, consider one final example. Imagine a state in which teenagers cannot legally drive at night. And imagine further that, one night, an officer sees a car go by with a bumper sticker that reads “Go Jaguars! 2019 High School Football Champs!” Does this bumper sticker provide reasonable suspicion to stop the car?

To some, the commonsense answer to that question will be yes. The bumper sticker, after all, indicates that the driver of the car might be a high school teenager out after curfew. To others, however, the commonsense answer will clearly be no. The driver, after all, could easily be the parent of a high school teenager. Indeed, if there is one thing we know about teenagers in this state it is that they are not allowed to drive at night.

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26 Id. at 886–87. This Court’s administrative-search and special-needs cases also emphasize the importance of using “empirical data[,] . . . [s]tated as a percentage,” to demonstrate the “effectiveness” of a given type of search. Michigan Dep’t of State Police v. Sitz, 496 U.S. 444, 454–55 (1990); see also Crespo, supra note 8 (manuscript at 18–19). Statistical inferences that draw on race, as in Brignoni-Ponce, raise separate issues that are not implicated in the Glover case. Cf. id. at 15–16 (discussing racial profiling).

27 Brignoni-Ponce, 422 U.S. at 885–86.

28 Id. at 886.

But of course, this hypothetical almost perfectly tracks the question presented in *Kansas v. Glover*. For there, too, a single item attached to the bumper of a car indicates that the car is associated with a group of people (say, a family) that includes one person who cannot legally drive, and others who can. And the same dueling intuitions described above perfectly capture the split of authority among the lower courts: Some judges, including each of the lower court judges in *Glover* itself, will intuit one answer. Other judges, however, will intuit the opposite answer.30

If one is being truly honest, however, a judge who knows nothing more than that a car is registered to an unlicensed owner can offer only one commonsense response to the question presented, and that is the one given by Justice Stegall during oral argument before the Kansas Supreme Court. “I’m looking for something solid to stand on,” he said, “and I just don’t know where to go . . . . I don’t know how often cars on the road are being driven by their owners.”32 “How would [one] know” that, after all, “without having some further evidentiary foundation [showing], for example, statistically speaking, how often are vehicles on the road being driven by [their] registered owner?”33

Of course, as Justice Stegall went on to observe, one “could guess” the answer to that question.34 But as he further noted, such a guess would be little better than “a hunch,”35 which the U.S. Supreme Court “has

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30 *See Appendix to Petition for Certiorari at 38–39, Kansas v. Glover, 139 S. Ct. 1445 (2019) (mem.) (No. 18-556) [hereinafter Appendix] (trial court opinion) (“I think . . . for a lot of families that if there are multiple family members . . . somebody other than the registered owner often is driving that vehicle.”); State v. Glover, 422 P.3d 64, 69 (Kan. 2018), *cert. granted*, 139 S. Ct. 1445 (“[C]ommon experience in Kansas . . . suggests families may have several drivers sharing vehicles . . . .”); *see also* Oral Argument at 28:57, *Glover*, 422 P.3d 64 (No. 116,446) (Johnson, J.), https://youtu.be/LQLIeh2cEtw [hereinafter Oral Argument] (“I would prefer to assume someone was going to follow the [suspended-license] law than to assume someone is breaking the law.”).

31 *See, e.g.*, People v. Barnes, 505 N.E.2d 427, 428 (Ill. App. Ct. 1987) (“While other people may drive an owner’s vehicle, it is clear that the owner will do the vast amount of driving.”).


33 *Id.* at 25:56 (emphasis added).

34 *Id.*

35 *Id.*
consistently refused to sanction” as a valid basis for a stop.\textsuperscript{36} Rather, to the extent that the Fourth Amendment tolerates guesses, it insists that they be educated ones, grounded in factual reality: “[T]he police officer must be able to point to specific and articulable facts which, taken together with rational inferences from those facts, reasonably warrant th[e] intrusion.”\textsuperscript{37}

For all these reasons, the seventeen states that appeared before the Supreme Court as \textit{amici curiae} in 	extit{Glover} have it precisely right. “While not always possible, [some] police practices can be evaluated against statistical correlations drawn from sound empirical data . . . .”\textsuperscript{38} The State’s claim in 	extit{Kansas v. Glover} “is amenable to [such] empirical and statistical” analysis,\textsuperscript{39} and should therefore be evaluated based on “data” that describe the “patterns of operation of certain kinds of lawbreakers,” namely, people with suspended licenses.\textsuperscript{40}

\textbf{B. The Incongruity Between Locally Variable Facts and a Nationwide Rule of Law}

Once one accepts that 	extit{Kansas v. Glover} turns on an empirical question, two salient and uncontested points come into focus. First, some of the potential answers to that question would clearly be sufficient to validate the challenged stop — while others just as clearly would not. Once again, the \textit{amici} States have it right.\textsuperscript{41} The essential question is thus where within that range the true answer lies.

\textsuperscript{36} Terry v. Ohio, 392 U.S. 1, 22 (1968); see also Oral Argument, \textit{supra} note 30, at 22:07 (Luckert, J.) (“[A]ll we have here . . . [is] a hunch that the owner is the person who is in that car. We don’t have any more than that.”).

\textsuperscript{37} Terry, 392 U.S. at 21 (emphases added).

\textsuperscript{38} Brief of Oklahoma et al., \textit{supra} note 10, at 2.

\textsuperscript{39} \textit{Id.}

\textsuperscript{40} United States v. Cortez, 449 U.S. 411, 418 (1981).

\textsuperscript{41} See Brief of Oklahoma et al., \textit{supra} note 10, at 5 (observing that if the key probability “is exceedingly low” the stop would be unconstitutional, but that if it “approaches anywhere near 50% — though certainly it need not be that high — the conclusion that [the stop was] reasonable will be hard to escape”). As noted \textit{supra} note 8, the Supreme Court need not specify a precise threshold to resolve 	extit{Kansas v. Glover}. But cf. Navarette v. California, 572 U.S. 393, 410 (2014) (Scalia, J., dissenting, joined by Ginsburg, Sotomayor, and Kagan, JJ.) (describing reasonable suspicion as a “proportion” of “1 in 10 or at least 1 in 20”); C.M.A. McCauliff, \textit{Burdens of Proof: Degrees of Belief, Quanta of
Second, as the Kansas Supreme Court held, and as the State itself ultimately acknowledges in its Supreme Court briefing, the probability that a given vehicle is being driven by its unlicensed owner is likely to depend in part on two underlying pieces of information: the average number of “drivers for every registered automobile,” and the extent to which “suspended drivers continue to drive.” Indeed, in some circumstances, data concerning either one of those factors could answer the question. For example, if data were to show that the typical car has twenty-five associated drivers, even Kansas would apparently concede that the stop at issue in Kansas v. Glover would be unconstitutional. Similarly, if data were to show that license suspensions are maximally effective, such that one hundred percent of suspended drivers cease driving, the fact that a vehicle is registered to an unlicensed owner would definitively exclude that person from the universe of potential drivers — precisely the opposite inference from the one the State seeks to draw.

Kansas seems to recognize that the analysis in the Glover case turns on actual data about these factors, as it cites figures with respect to each one in its Supreme Court brief. Unfortunately, those figures come too late in the proceedings, and well past the point when their integrity could have been tested. But even if the State had come forward with adequate data at the appropriate time, that data could not support the nationwide rule of law that Kansas and its amici seek — because the underlying facts vary significantly from place to place.

Consider first the number of drivers per car. According to the State’s own cited statistics, this ratio varies substantially even within the ten states described in the cited source, which reports that there are roughly 40% more
drivers per automobile in North Dakota than in Minnesota.\textsuperscript{47} That variability only increases once the rest of the country is considered, with the number of drivers per automobile varying by as much as 195% across states.\textsuperscript{48} By the State’s own logic, then, “the likelihood that the registered owner of a vehicle” is driving that vehicle could thus nearly double from one state to the next.\textsuperscript{49} And crucially, this geographic variation is likely to grow dramatically in coming years, as people increasingly rent their personal cars “to strangers” in the “peer-to-peer car sharing” economy.\textsuperscript{50}

As for the deterrent impact of suspending someone’s driver’s license, here too the underlying empirics vary considerably. The State and its \textit{amici} are quick to observe that various studies — once again, cited for the first

\textsuperscript{47} See \textit{The 10 States with the Most Suspended/Revoked Licenses}, \textsc{Insurify} (June 4, 2018), https://insurify.com/insights/the-10-states-with-the-most-suspended-revoked-licenses/ (reporting 2.24 and 1.61 drivers per car in these two states).

\textsuperscript{48} See \textsc{Fed. Highway Admin.}, \textsc{Highway Statistics} 2017, tbls. DL-1C & MV-1 (2018), https://www.fhwa.dot.gov/policyinformation/statistics/2017/. The State cites an insurance website that pulls data from the Federal Highway Administration, which separately reports the ratio per state of licensed drivers to all motor vehicles, including buses, trucks, and motorcycles — all of which the State’s source excludes. The State’s source, however, curiously \textit{includes} publicly owned vehicles (such as police cruisers) in its denominator, notwithstanding their irrelevance to the question presented; it also conflates 2015 data for the number of drivers with 2016 data for the number of vehicles. \textit{Compare The 10 States with the Most Suspended/Revoked Licenses}, \textsc{Insurify} (June 4, 2018), \textit{with Fed. Highway Admin.}, \textsc{Highway Statistics} 2015, tbl. DL-1C (2017), https://www.fhwa.dot.gov/policyinformation/statistics/2015/, \textit{and Fed. Highway Admin.}, \textsc{Highway Statistics} 2016, tbl. MV-1 (2017), https://www.fhwa.dot.gov/policyinformation/statistics/2016/. Because the State introduced these figures for the first time in its briefs to the Supreme Court, these and other potential defects in its data have never been tested. \textit{Cf.} Brief for Respondent at 23, Kansas v. Glover, 139 S. Ct. 1445 (2019) (mem.) (No. 18-556), 2019 WL 4167080; \textit{infra} Part II.

\textsuperscript{49} Brief for the Petitioner, \textit{supra} note 8, at 13.

\textsuperscript{50} Jonathan J. Cooper, \textit{Apps Enable Auto Owners to Rent Out Their Vehicles}, \textsc{Chi. Trib.}, May 5, 2019, at 2-4; \textit{see also} Oral Argument, \textit{supra} note 30, at 22:53 (Luckert, J.) (“[I]n today’s age a person . . . could very easily be using one of the services where you rent [your car] to other people . . . .”). The “burgeoning” car-sharing economy already boasts “10 million members and nearly 400,000 listed vehicles.” Maureen Farrell, \textit{IAC Buys $250 Million Stake in Car-Sharing App}, \textsc{Wall St. J.}, July 17, 2019, at B5. It varies geographically, however, due in part to differences in state law. \textit{See id.} (noting absence of car sharing in New York, where “rentals can’t be insured”); \textit{cf.} Oral Argument, \textit{supra} note 30, at 27:59 (Johnson, J.) (noting that under prior Kansas tort law, it “was absolutely wrong” to assume the registered owner of a car was the typical driver, because liability rules created “reasons [to title it to someone] different than the regular user”).

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time in briefing before the Supreme Court — show that many people with suspended licenses continue to drive.\textsuperscript{51} But the real question is not whether suspended drivers continue to drive \textit{at all}, but rather \textit{how much} (or how little) they keep driving after losing their licenses. After all, if data showed that suspended drivers get behind the wheel for only a few minutes a year, the odds that such an individual — as opposed to his spouse or one of his teenagers — would be driving a vehicle registered in his name at the precise moment that it is observed by the police would be “exceedingly low.”\textsuperscript{52}

And in fact, research shows that while “most people continue to drive after their licenses have been suspended,” those “drivers are \textit{not} driving as before.”\textsuperscript{53} Rather, “the majority” of people with suspended licenses report “that they drove ‘much less.’”\textsuperscript{54} And crucially, geographic variability looms large in this context as well. For as research shows, “[t]he principal explanation” for driving on a suspended license is “the need to get to work,” which is considerably easier to do without a car in dense urban settings or in places with robust public transit.\textsuperscript{55} Suspended drivers are thus less likely to drive in cities with strong alternative modes of transportation.\textsuperscript{56}

In sum, as Justice Stegall noted during oral argument held before the Kansas Supreme Court, the reasonableness of the State’s inference is likely to “change depending on whether [a] stop happened in New York City or in Gove County, Kansas.”\textsuperscript{57} For precisely that reason, the Kansas Supreme

\textsuperscript{51} See Brief for the Petitioner, supra note 8, at 14; Brief for the United States, supra note 7, at 14; Brief of Oklahoma et al., supra note 10, at 15.

\textsuperscript{52} Brief of Oklahoma et al., supra note 10, at 5; see Brief for Respondent, supra note 48, at 21.


\textsuperscript{54} Id. at 383 (emphasis added).

\textsuperscript{55} Id. at 383 (reporting that the proportion of drivers deterred by license suspension increased from 58\% to 95\% for people who work within ten miles of their homes); see id. at 384 (discussing the salience of public transit).

\textsuperscript{56} See id. (indicating that residents of “Western cities” may be more likely to drive with a suspended license than people in cities with better public transit); Brief of Oklahoma et al., supra note 10, at 15–16 (noting that “[d]rivers in the American heartland . . . are the most likely” to drive on suspended licenses (quoting Danger on the Roads? States with the Most Repeat Driving Offenses, INSURIFY (Feb. 27, 2019), https://insurify.com/insights/states-with-most-repeat-driving-offenses/)).

\textsuperscript{57} Oral Argument, supra note 30, at 30:01.
Court wisely eschewed “a bright-line rule” that would operate in “a uniform
[way] across our wide, diverse” society.\textsuperscript{58}

The U.S. Supreme Court has been similarly wise in its own precedents.\textsuperscript{59}
That wisdom should prevail in \textit{Kansas v. Glover}. For while nationwide rules
are useful — essential, even — when resolving uniform questions of law,
they have no place when answering highly variable questions of fact.\textsuperscript{60}

\textbf{II. THE DISPOSITIVE NATURE OF THE BURDEN OF PROOF}

In the end, \textit{Kansas v. Glover} should not be a hard case. The question
presented is inescapably empirical. Its answer cannot be divined by
common sense but rather requires some facts describing the “proportion” of
vehicles observed to be registered to unlicensed owners that are actually
driven by those unlicensed individuals.\textsuperscript{61} Kansas, however, did not
introduce any such facts into the record, opting instead to draft a stipulation
of facts wholly devoid of this essential information.

That unusual litigation decision requires affirmance of the Kansas
Supreme Court’s judgment. For there are few legal principles better
established than the notion that the party with the burden of production has
the “obligation to come forward with evidence to support its claim.”\textsuperscript{62} In
\textit{Glover}, the State concedes that it bears this burden.\textsuperscript{63} And rightly so, given

\textsuperscript{58} \textit{Id.}

might well be unremarkable in one instance (such as a busy San Francisco highway) while
quite unusual in . . . a remote portion of rural southeastern Arizona[,]”); \textit{Ornelas v. United
States}, 517 U.S. 690, 699 (1996) (noting that “reasonable suspicion” could mean one thing
“alongside a transcontinental highway at the height of the summer” but something quite
different “in December in Milwaukee”).

\textsuperscript{60} Given this fact-laden variability, appellate courts owe “deference” to the “trial
judge” who “view[ed] the facts of a particular case in light of the distinctive features . . .
of the community” where a stop occurred. \textit{Ornelas}, 517 U.S. at 699–700; cf. Appendix,
\textit{supra} note 30, at 38–39 (trial court opinion) (finding that vehicles registered to one family
member are “often” driven solely by others).

\textsuperscript{61} United States v. Brignoni-Ponce, 422 U.S. 873, 886 (1975).

\textsuperscript{62} Dir., Office of Workers’ Comp. Programs v. Greenwich Collieries, 512 U.S. 267,
272 (1994); \textit{see} LaFave, \textit{supra} note 6, at 49 (“If the party who has the burden of producing
evidence does not meet that burden, the consequence is an adverse ruling on the matter at
issue.”).

\textsuperscript{63} \textit{See} Brief for the Petitioner, \textit{supra} note 8, at 17–19 (insisting that the State is not
trying to “shift the burden to the defendant”).
the widely accepted rule that “if the police acted without a warrant the burden of proof is on the prosecution.”

Indeed, the State of Kansas not only concedes that it bears the burden of production in the *Glover* case — it attempts to satisfy that burden in its briefing to the Supreme Court, where for the very first time it offers data supporting its asserted factual inference. But of course this belated effort to slide the key facts of the case into the record is not permissible. The Supreme Court is “a court of review, not of first view.”

Nowhere is that admonition more important than when a party attempts to litigate the central factual question of a case for the first time on appeal. As the Supreme Court has long held, requiring the parties to present their factual claims “in the trial forum” is “essential” to ensuring that both sides “have the opportunity to offer all the evidence they believe relevant to the issues [that] the trial tribunal is alone competent to decide,” and that neither is “surprised on appeal by [a] final decision” that turns on “issues upon which they have had no opportunity to introduce evidence.” “Supreme Court briefs,” in other words, “are an inappropriate place to develop the key facts in a case.”

Notably, in *Kansas v. Glover*, the State’s newly proffered evidence not only arrives too late, but is potentially unreliable as well. For one thing, the State’s primary source is an insurance company website that uses the

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64 LaFave, *supra* note 6, at 50; *see* United States v. Jeffers, 342 U.S. 48, 51 (1951) (holding that “the burden is on those seeking [an] exemption” to the warrant requirement to show that a warrantless search or seizure is justified); *see also* Beck v. Ohio, 379 U.S. 89, 97 (1964); State v. Morlock, 218 P.3d 801, 806 (Kan. 2009).

65 *See* Brief for the Petitioner, *supra* note 8, at 13–15.


68 Sykes v. United States, 564 U.S. 1, 31 (2011) (Scalia, J., dissenting); *see also* Beck, 379 U.S. at 93 (“[A] recital in an appellate opinion is hardly the equivalent of findings made by the trier of the facts.”); *cf.* Transcript of Oral Argument at 43, City of Hays v. Vogt, 138 S. Ct. 1683 (2018) (No. 16-1495) (Roberts, C.J.) (urging the Court to “discount” information if “it’s not something that’s in the record”). Facts offered for the first time by appellate *amicus* are equally, if not more, problematic. *See* Allison Orr Larsen, *The Trouble with Amicus Facts*, 100 VA. L. REV. 1757 (2014); *cf. infra* note 95.

69 *Cf.* Kansas v. Hendricks, 521 U.S. 346, 392 (1997) (Breyer, J., dissenting) (“The prohibition on facts found outside the record is designed to ensure the reliability of the evidence before the Court.”).
wrong denominator when describing the ratio of drivers to cars, and that curiously mixes driver data from one year with vehicle data from another — defects that the State does not mention in its brief and of which it may be unaware. 70 The State’s calculations interpreting its data, moreover, are equally curious: In the span of two pages, it offers three different answers to the core empirical question at issue, suggesting at first that “the likelihood” that a suspended owner “is driving his or her vehicle is no less than 33%,” 71 before then suggesting that, actually, it might be as low as 25%, or perhaps less than 10%. 72 One wonders how such claims would have fared under adversarial testing at the trial level, where Mr. Glover could have been aided by cross-examination, “expert witnesses[,] and the procedural protections of discovery.” 73

In sum, “it was incumbent upon the prosecution to” present the trial court with sufficient “information” to support “the constitutional validity” of the stop at issue. 74 Rather than satisfy that burden, however, the State opted to draft a stipulation of facts that contains no information whatsoever regarding the “likelihood that the registered owner of a vehicle in Kansas is driving his or her vehicle.” 75 Because the record is silent on that essential question, the State, as the party bearing the burden of production, cannot prevail. 76

70 See supra note 48.
71 Brief for the Petitioner, supra note 8, at 13.
72 Compare id. 14 (suggesting that “there could be three drivers for every registered vehicle”), with id. at 15 (suggesting that only 75% of suspended drivers continue to drive at all), and id. at n.2 (suggesting that as few as 30% of suspended drivers continue driving). Assuming the number of drivers per car is independent of the rate at which suspended drivers cease driving, the State’s initial 33% figure should be multiplied by either its 75% or its 30% figure, yielding a final figure of either 24.75% or 9.9%. But see supra section I.B (noting that focusing solely on people who stop driving altogether substantially understates the deterrent effect of license suspension).
73 Sykes, 564 U.S. at 31 (Scalia, J., dissenting); cf. Singleton v. Wulff, 428 U.S. 106, 120 (1976) (“We have no idea what evidence [the respondent] would, or could, offer . . . but this is only because [he] has had no [such] opportunity . . . .”).
74 Beck v. Ohio, 379 U.S. 89, 97 (1964); id. at 93 (holding that the prosecution cannot prevail when its “record is meager”).
75 Brief for the Petitioner, supra note 8, at 13 (emphasis added); see Oral Argument, supra note 30, at 7:28 & 25:18 (confirming that counsel for the State drafted the key portions of the stipulation).
76 The Kansas Supreme Court’s decision correctly reflects this straightforward proposition:
III. The Ready Availability of Suitable Empirical Evidence

The irony of *Kansas v. Glover* is that the State could have easily won, had it simply presented some evidence supporting its central factual claim during a suppression hearing, which judges in Kansas (like everywhere else) conduct “on a routine basis in courtrooms across the state.” Such evidence, moreover, was readily available. Indeed, the best possible data for resolving this case could have been collected and reported with the click of a button — via the same dashboard computer that Officer Mehrer used to run the respondent’s license plate. Even absent such digital data, however, the State could have prevailed had it presented other, more conventional evidence describing the key statistic at issue, including potentially testimony from Officer Mehrer himself.

The State’s failure to present any such evidence requires a narrowly tailored affirmance of the Kansas Supreme Court. But that curious and idiosyncratic litigation misstep ought not doom other stops, conducted under similar circumstances, so long as they are supported by sufficient facts.

A. The Promising Potential of Dashboard Computers and Electronic Traffic Citations

To determine the key “proportion” at the heart of *Kansas v. Glover*, all one needs to do is count how many times vehicles reportedly registered to unlicensed drivers are actually driven by those individuals when such vehicles are stopped in the relevant geographic area. Armed with that “hit rate,” one can “compute the likelihood that any particular [stop] will result . . . in the discovery of particular kinds of evidence,” including an

When a court draws inferences in favor of the State [notwithstanding] a lack of evidence in the record, it impermissibly relieves the State of its burden. . . . In plain terms, it does not matter if the evidentiary gap is an inch or a mile; if the State has the burden to fill it, it must do so with evidence. . . . [T]he State, by presenting some more evidence, may meet its burden. But the State did not present any such evidence here . . . .


78 See supra Part II.

unlicensed driver sitting behind the wheel.\textsuperscript{80} “[S]tatistics in the field,” in other words, yield “the key number” for the analysis.\textsuperscript{81}

Sometimes, the data necessary to determine this hit rate will be hard to come by.\textsuperscript{82} But not so in Glover. On the contrary, “[t]echnology has made it easier and easier to record, collect, and analyze data on Terry stops, and more and more police departments are doing so.”\textsuperscript{83} Such data collection is especially prevalent with respect to automotive information, which officers across the country routinely access from “‘mobile data terminals’ in their squad cars,”\textsuperscript{84} just as Officer Mehrer did in Mr. Glover’s case.\textsuperscript{85}

Those “mobile data terminals” offer a key to resolving the issue in Kansas v. Glover. Indeed, most police departments — including, apparently, the one that pulled Mr. Glover over — already have data covering thousands of prior traffic stops stored within their files, in the form of electronically issued traffic citations.\textsuperscript{86} Those tickets record the license


\textsuperscript{81} Erica Goldberg, Getting Beyond Intuition in the Probable Cause Inquiry, 17 LEWIS & CLARK L. REV. 789, 819 (2013); see Crespo, supra note 8 (manuscript at 12–28). The National District Attorneys Association thus rightly focuses on whether “[t]he ratio of unlicensed drivers to law-abiding drivers [among those who are] stopped” is sufficiently “productive.” Brief of Amicus Curiae National District Attorneys Association in Support of Petitioner at 11, Glover, 139 S. Ct. 1445 (No. 18-556), 2019 WL 2592430 [hereinafter Brief of National District Attorneys Association]. Its assertion that “[s]tops like the one performed here . . . are dramatically more productive” than other stops, however, suffers from a familiar defect: It is a factual claim, wholly untethered to factual support. Id. (emphasis added) (citing no sources).


\textsuperscript{83} Goel et al., supra note 80, at 186; see Crespo, supra note 8 (manuscript at 20–22).

\textsuperscript{84} Brief of the National Fraternal Order of Police, as Amicus Curiae in Support of Petitioner at 14, Glover, 139 S. Ct. 1445 (No. 18-556), 2019 WL 2711211 [hereinafter Brief of the National Fraternal Order of Police].

\textsuperscript{85} See Oral Argument, supra note 30, at 19:14; Appendix, supra note 30, at 83.

plate numbers of every ticketed vehicle,\textsuperscript{87} the precise input that Officer Mehrer used to determine whether Glover’s vehicle was registered to an unlicensed driver. And each electronic ticket also records the driver’s license number of the person who was \textit{actually} driving the ticketed car.\textsuperscript{88} The pool of electronic traffic tickets thus contains — for every stop resulting in a ticket — the two pieces of information needed to determine how frequently vehicles registered to unlicensed drivers were in fact being driven by those individuals when stopped. And with a straightforward algorithm, a computer could comb through all those thousands of tickets — and calculate the hit rate of interest.\textsuperscript{89}

Indeed, dashboard computers could go one step further. For imagine a slightly different version of Mr. Glover’s case, in which after Officer Mehrer learned from his computer that license plate 295ATJ is registered to unlicensed driver Charles Glover, Jr., the computer then flashed a question on its screen to await the officer when he returned to the cruiser: “\textit{Was that Charles Glover, Jr.? Yes/No.}” With the click of a button, Officer Mehrer (and all the other officers in his area conducting similar stops) would have begun to assemble a pool of “data that is both system-wide and stop-level deep,” the “gold standard” for testing the State’s asserted inference.\textsuperscript{90}

Programming dashboard computers to issue such prompts (or finding an app for that) is trivially simple.\textsuperscript{91} And with just a few dozen Yes/No clicks, the same dashboard computer used to run Mr. Glover’s license plate could quickly — and automatically — begin to calculate the precise hit rate at issue.\textsuperscript{92} Armed with that hit rate, the laptop could then indicate to the officer

\begin{itemize}
\item \textsuperscript{87} See, e.g., Appendix, supra note 30, at 45 (displaying Mr. Glover’s citation).
\item \textsuperscript{88} See id.
\item \textsuperscript{89} Cf. Sharad Goel et al., \textit{Precinct or Prejudice? Understanding Racial Disparities in New York City’s Stop-and-Frisk Policy}, 10 ANNALS OF APPLIED STAT. 365 (2016) (using similar method for street stops).
\item \textsuperscript{90} W. David Ball, \textit{The Plausible and the Possible: A Bayesian Approach to the Analysis of Reasonable Suspicion}, 55 AM. CRIM. L. REV. 511, 530 (2018).
\item \textsuperscript{92} If one takes as a hypothesis the State’s claim that the true rate at which an unlicensed driver “is driving his or her vehicle is no less than 33%,” Brief for the Petitioner, supra note 8, at 13, it would take only 20 Yes/No clicks to determine whether the actual likelihood that a car is being driven by its unlicensed driver exceeds 10%, and only 73 Yes/No clicks to determine whether that actual likelihood exceeds 20%. Cf. supra n.41 (discussing potential thresholds for “reasonable suspicion”). These figures are based on a one-tailed

\end{itemize}
whether there is, in fact, a sufficient “likelihood” that a vehicle registered to an unlicensed driver is being driven by that individual, and thus whether there is reasonable suspicion for a stop.93

In sum, the State is sitting on a trove of data, in the form of the electronic traffic citations it has already issued and the “gold standard” hit rate data it could easily collect. If the burden of production means anything at all,94 surely it means that a party with such easy access to the most relevant information at issue must, in fact, produce it.

**B. The Surprising Absence of Officer Mehrer’s Testimony**

Finally, it bears noting that even if the State were for some reason unable or unwilling to present data from its own traffic records or dashboard computers to substantiate its core factual claim, it still might have prevailed in proceedings before the trial court had it simply presented some other meaningful form of statistical evidence. It might, for example, have done what its *amici* have attempted to do in briefs filed with the Supreme Court — namely, introduce studies illuminating the underlying rates of suspended driving in the relevant population.95 The particular study offered by the

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93 Brief for the Petitioner, *supra* note 8, at 13. To be sure, the computer would need to be told (by judges) the threshold for reasonable suspicion, a question not squarely presented in *Kansas v. Glover*. *See supra* notes 8 & 41. A ruling for the State would not, however, avoid setting that threshold — it would simply set it at zero. For under the State’s approach, the police could stop tens of millions of innocent drivers solely because they share a vehicle with someone whose license is suspended; and the government will never have to demonstrate that those stops are even minimally effective at catching suspended drivers. *See Crespo, supra* note 8 (manuscript at 6–7, 67–69); *see also* NAT’L CTR. FOR STATE COURTS, *supra* note 18, at 21 (reporting that nearly seven million people have suspended licenses “for nonpayment of court debt” in California, Texas, and Virginia alone); *cf.* Reid v. Georgia, 448 U.S. 438, 441 (1980) (rejecting a justification for a stop that “describe[s] a very large category of presumably innocent travelers”); Brief for Respondent, *supra* note 48, at 46–50 (discussing the harms of stopping millions of innocent drivers).

94 *See supra* Part II

95 *Cf.* Brief of Oklahoma et al., *supra* note 10, at 7–12. Statisticians often use crash statistics to approximate rates of unlicensed driving. *See Sukhvir S. Brar, Estimating the Over-Involvement of Suspended, Revoked, and Unlicensed Drivers as At-Fault Drivers in California Fatal Crashes*, 50 J. SAFETY RES. 53 (2014). The *amici* States, however, focus on a different — and misguided — question in their brief: “[W]ith no other information, what is the probability that a vehicle on the road is being driven by the registered owner?”
amici states suffers from a number of flaws — including that it has never been subjected to adversarial testing — but the very fact that those states were able to produce such data in an amicus brief highlights Kansas’s failure to produce any relevant data when it had the burden to do so.

Indeed, the unusually spare record in Kansas v. Glover lacks the most basic form of evidence one expects to encounter in a Fourth Amendment case: testimony from the arresting officer. Once again, the State’s amici elide this omission, suggesting that Officer Mehrer must have drawn on “his experience” with prior traffic stops when he “inferred that the owner in this instance” was “driving without a valid license.” But Officer Mehrer never took the stand in the trial court. And as a result, the record contains no information whatsoever about his relevant experience. More specifically, it contains no information about the key statistic at issue: the number of times that Officer Mehrer pulled over a car that he knew to be registered to an unlicensed owner and saw that the unlicensed owner was, in fact, behind the wheel.

Officer Mehrer never provided that information because the State never called him to testify. To be sure, some of the answers that he might have given to questions along these lines may have been insufficient to justify the stop. Other answers, however, could have been enough — depending on

Brief of Oklahoma et al., supra note 10, at 5 (emphasis added). That inquiry omits the one essential fact we do know in the Glover case: this “stop was based . . . on the information that Glover’s license had been revoked;” Brief for the Petitioner, supra note 8, at 2 (emphasis added). As noted supra section I.B., that fact substantially decreases the likelihood that Glover would be the driver. See also Brief for Respondent, supra note 48, at 22. By failing to isolate suspended drivers within their data, the amici States thus offer little in the way of useful data. (Nor is it clear that statewide data from Oklahoma will help assess driving habits in Lawrence, Kansas.)

96 Brief of National District Attorneys Association, supra note 81, at 8; see also Brief of Oklahoma et al., supra note 10, at 3–4; Brief of the National Fraternal Order of Police, supra note 84, at 20.

97 See Brief for Respondent, supra note 48, at 25–27.

98 See Oral Argument, supra note 30, at 34:08 (Nuss, C.J.) (“[O]fficers . . . often will say, ‘in my experience when you see rolled-up bills, that suggests drug activity’. . . . There’s nothing like that here . . . . [This officer never said] ‘in my experience . . . when . . . a vehicle is moving down the road, and I run the plate I’ve learned that the owner has a revoked license, 10% of the time or 25 out of 30 times’ . . . .”); id. at 25:56 (Stegall, J.) (“How would we know if it was reasonable without having . . . even just some . . . vague testimony about [the officer’s] experience . . . ?”).
how frequently he has actually encountered unlicensed owners driving their registered vehicles. 99

And that is the central point: facts matter. In this case, the State failed to present any relevant facts, even though it easily could have done so, as prosecutors routinely do in suppression hearings across the country. By departing from that ordinary practice and relying instead on a stipulation that lacks any relevant facts, the State injected a fatal but narrow error into the case. That error requires suppression of the evidence obtained from the stop, even if that result would be unlikely in a more typical case — litigated on an actual, factual basis.

99 Cf. supra note 92 (observing that a few dozen stops could yield a statistically significant answer). Note that the officer himself need not have this statistic — or any other statistic — in mind when effectuating a stop. Cf. Devenpeck v. Alford, 543 U.S. 146, 153–55 (2004); Whren v. United States, 517 U.S. 806, 813–14 (1996). The officer could thus stop a driver based on the subjective belief that registered owners frequently drive their own cars — what the State here calls “common sense.” Brief for the Petitioner, supra note 8, at 4. A court reviewing the constitutionality of that stop, however, cannot simply take the officer’s asserted common sense as gospel. Rather, it must probe the officer’s assumption to see if it is supported by facts. Indeed, that is precisely how judges determine whether the officer’s purported common sense consists of “reasonable inferences which he is entitled to draw from the facts in light of his experience,” or is instead merely “his inchoate and unparticularized suspicion or ‘hunch,’” which cannot support a stop. Terry v. Ohio, 392 U.S. 1, 27 (1968).