

IN THE
Supreme Court of the United States

STATE OF KANSAS,

Petitioner,

v.

CHARLES GLOVER,

Respondent.

On Writ of Certiorari to
The Supreme Court of Kansas

**BRIEF OF *AMICI CURIAE*
ELECTRONIC PRIVACY INFORMATION CENTER
(EPIC) AND TWENTY-TWO TECHNICAL EXPERTS
AND LEGAL SCHOLARS IN SUPPORT OF
RESPONDENT**

MARC ROTENBERG
Counsel of Record
ALAN BUTLER
MEGAN IORIO
ELECTRONIC PRIVACY
INFORMATION CENTER (EPIC)
1519 New Hampshire
Avenue NW
Washington, DC 20036
(202) 483-1140
rotenberg@epic.org

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OTHER AUTHORITIES

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INTEREST OF THE *AMICI CURIAE*

The Electronic Privacy Information Center (EPIC) is a public interest research center in Washington, D.C.¹ EPIC was established in 1994 to focus public attention on emerging civil liberties issues, to promote government transparency, and to protect privacy, the First Amendment, and other constitutional values.

EPIC has filed numerous briefs before this Court over the past 25 years in cases concerning the application of the Fourth Amendment to new technology. *See, e.g.*, Brief of *Amici Curiae* EPIC et al., *Carpenter v. United States*, 138 S. Ct. 2206 (2018) (No. 16-402) (arguing that the rule adopted in *Smith v. Maryland* should not extend to warrantless collection of cell phone location data); Brief of *Amici Curiae* EPIC et al., *Byrd v. United States*, 138 S. Ct. 1518 (No. 16-1371) (arguing that the contractual status of a driver does not affect the reasonable expectation of privacy); Brief of *Amici Curiae* EPIC et al., *Utah v. Streiff*, 136 S. Ct. 2056 (2016) (arguing that evidence obtained from suspicionless identification should be suppressed); Brief of *Amici Curiae* EPIC et al., *Riley v. California*, 134 S. Ct. 2473 (2014) (arguing that cell phones should not be subject to warrantless searches under the search incident to arrest exception); Brief of *Amicus Curiae* EPIC, *Florida v. Harris*, 133 S. Ct. 1050 (2013) (arguing that the government bears the burden of establishing the reliability of new investigative techniques used

¹ Both parties consent to the filing of this brief. In accordance with Rule 37.6, the undersigned states that no monetary contributions were made for the preparation or submission of this brief, and this brief was not authored, in whole or in part, by counsel for a party.

in establishing probable cause for a search); Brief of *Amici Curiae* EPIC et al., *United States v. Jones*, 565 U.S. 400 (2012) (arguing that warrantless tracking of a car using a GPS device violates the Fourth Amendment).

This case implicates a police practice—stopping a vehicle when the license of the registered owner is suspended—that will have far-reaching implications as applied to the increasing use of Automated License Plate Readers. Under the *per se* rule proposed by the petitioners, there will be far more stops of vehicle operators who have, in fact, committed no crime, and these stops are more likely to occur in disadvantaged communities and communities of color where the sharing of vehicles among friends and relatives is a common practice.

EPIC first drew attention to the privacy risks of Automated License Plate Readers nearly a decade ago. EPIC, *License Plate Recognition Systems* (2019).² Since then, EPIC sued to obtain records pertaining to the use of license plate readers by the Departments of Homeland Security, Defense, and Justice. EPIC, *EPIC FOIA: Automated License Plate Readers and Border Checkpoint Body Scanners* (2019).³ EPIC has also advocated for the release of records detailing the use of license plate readers at the state level. EPIC, *ACLU of Southern California v. Superior Court of Los Angeles* (2019).⁴

EPIC’s brief is joined by the following distinguished experts in law, technology, and public policy.

² <https://epic.org/privacy/licenseplates/>.

³ https://epic.org/foia/epic_foia_automated_license_pl.html.

⁴ <https://epic.org/amicus/foia/california/alpr/>.

Legal Scholars and Technical Experts

- Colin J. Bennett
Professor, University of Victoria
- Christine L. Borgman
Distinguished Research Professor & Director,
UCLA Center for Knowledge Infrastructures
- Kimberly Bryant
Founder and CEO of Black Girls CODE
- Danielle Keats Citron
Professor of Law, Boston University School of
Law; Vice President, Cyber Civil Rights Initiative
- Simon Davies
Publisher, the Privacy Surgeon, Fellow of the
University of Amsterdam; Founder of Privacy
International and EPIC Senior Fellow
- Addison Fischer
Founder and Chairman, Fischer International
Corp.
- Jerry Kang
Korea Times—Hankook Ilbo Chair in Korean
Am. Studies and Law, UCLA
- Harry R. Lewis
Gordon McKay Professor of Computer Science,
Harvard University
- Roger McNamee
Elevation Partners
- Gary T. Marx
Professor Emeritus of Sociology, MIT
- Mary Minow
Library Law Consultant

- Dr. Pablo Garcia Molina
Adjunct Professor, Georgetown University
- Dr. Peter G. Neumann
Chief Scientist, SRI International Computer
Science Lab
- Deborah C. Peel, M.D.
President of Patient Privacy Rights
- Bilyana Petkova
EPIC Scholar-in-Residence; Assistant Profes-
sor, Maastricht University
- Bruce Schneier
Fellow and Lecturer, Harvard Kennedy School
- Dr. Barbara Simons
IBM Research (retired)
- Nadine Strossen
John Marshall Harlan II Professor of Law,
New York Law School
- Sherry Turkle
Abby Rockefeller Mauzé Professor of the Social
Studies of Science and Technology, Program in
Science, Technology, and Society, MIT
- Ari Ezra Waldman
Professor of Law, Director, Innovation Center
for Law and Technology, New York Law School
- Jim Waldo
Gordon McKay Professor of the Practice of
Computer Science, John A. Paulson School of
Engineering and Applied Sciences, Harvard
University
- Christopher Wolf
Board Chair, Future of Privacy Forum
(Affiliations are for identification only)

SUMMARY OF THE ARGUMENT

The *Terry*-stop standard predates the adoption of automated policing techniques. For this reason, the Court should consider carefully whether to allow the police to stop a vehicle merely because the registered owner's license is suspended. Across the country, Automated License Plate Readers (ALPRs) scan license plates, search databases, and provide police officers with detailed information about the vehicle, including whether the registered owner has a suspended license. If the *per se* rule proposed by the petitioner were adopted, every such vehicle identified by the ALPR could then be stopped.

Moreover, the impact of the proposed rule would fall disproportionately on disadvantaged and minority communities. These communities are subject to increased use of ALPRs and are more likely to share vehicles of friends and family members, including those who may have a suspended license.

Amici urge the Court to uphold the decision of the Kansas Supreme Court and reject a rule that would allow a dramatic increase in traffic stops based on an assumption that is inaccurate and would unfairly burden disadvantaged communities.

ARGUMENT

Not long ago, a law enforcement officer might learn that the registered owner of a car had a suspended license after a traffic stop occurred if the operator of the vehicle happened to be the registered owner and the license was in fact suspended. Once a traffic stop was underway, an officer could manually run the plates or the license record for the driver. Officers

could not stop every vehicle, or even a significant number of vehicles, to determine whether the registered owner of the vehicle had a suspended license. In fact, the driver of the vehicle might not be the registered owner.

But now police departments across the United States use ALPRs for traffic enforcement. These devices allow officers, before a traffic violation is suspected or a stop has occurred, to determine whether the license of a registered owner has been suspended. This policing technique has fundamentally changed the way that law enforcement officers assess which vehicles to stop. Indeed, states have already begun to recognize the implications of this new policing technique.

The data collected can enhance law enforcement's ability to investigate and enforce the law, but also raise concerns that the information collected may be inaccurate, placed into databases and shared without restrictions on use, retained longer than necessary, and used or abused in ways that could infringe on individuals' privacy.

Nat'l Conf. of State Legislatures, *Automated License Plate Readers: State Statutes* (Mar. 15, 2019).⁵

This Court should consider the impact of this policing technique on a proposed rule that would allow the police to stop a vehicle merely because the license of the registered owner was suspended. The Court has

⁵ <http://www.ncsl.org/research/telecommunications-and-information-technology/state-statutes-regulating-the-use-of-automated-license-plate-readers-alpr-or-alpr-data.aspx>.

previously recognized the effect of advances in technology on Fourth Amendment rights. The Court should do so here.

I. Traffic stops based solely on the suspended license of the registered owner, combined with Automated License Plate Readers, will dramatically alter policing practices

A. Law enforcement officers increasingly use Automated License Plate Readers

ALPRs are powerful computer systems that allow police to easily obtain information about motor vehicles. The typical ALPR system includes a camera that scans the license plates of passing cars, and a computer that converts the image of the license plate number to text, searches a database or “hotlist” for the number, and alerts officers, in real-time, if there is a match. David J. Roberts & Meghann Casanova, Int’l Ass’n of Chiefs of Police, *Automated License Plate Recognition (ALPR) Use by Law Enforcement: Policy and Operational Guide* 9 (Aug. 2012).⁶ The hotlists are maintained by law enforcement agencies and contain a list of stolen vehicles and cars associated with wanted or missing persons. *Id.* at 26. Departments that use ALPRs for traffic enforcement also run the license plate numbers through state DMV records to determine whether the vehicle or registered owner are sanctioned. Keith Gierlack et. al, *License Plate Readers for Law Enforcement: Opportunities and Obstacles* 50 (2014).⁷

⁶ https://www.theiacp.org/sites/default/files/IACP_ALPR_Policy_Operational_Guidance.pdf.

⁷ https://www.rand.org/pubs/research_reports/RR467.html.

ALPR cameras can be mounted on stationary infrastructure, such as light poles, or in a mobile unit, such as a patrol car, a trailer, or even a traffic cone. The cameras can be concealed so that passing drivers do not know that their vehicles are being scanned. Leonardo, *Conceal Your System Components With ELSAG Custom Solutions* (2019).⁸ The concealment of the scanning process is one feature that distinguishes ALPR-facilitated stops from typical checkpoint stops, as drivers cannot “see that other vehicles are being stopped” nor other “visible signs of the officers’ authority.” *Delaware v. Prouse*, 440 U.S. 648, 657 (1979) (quoting *Brignoni-Ponce*, 422 U.S. at 894-95). Instead, the stop entails “law enforcement officers signaling a moving automobile to pull over to the side of the roadway, by means of a possibly unsettling show of authority.” *Id.*

Police departments across the country use ALPRs. The technology is ubiquitous in major metropolitan areas, with 93% of cities with one million inhabitants or more reporting that their police departments use ALPRs. Brian A. Reaves, U.S. Dep’t of Justice, Bureau of Justice Statistics, *Local Police Departments, 2013: Equipment and Technology* 4 (Jul. 2015).⁹ The technology has also become popular in smaller cities, with over three quarters of departments serving 100,000 or more residents using ALPRs in 2013. *Id.* A 2012 survey by the Police Executive Research Forum found that 85% of responding departments planned to buy the equipment or expand their systems in the next

⁸ <https://www.leonardocompany-us.com/lpr/alpr-products/custom-solutions>.

⁹ <https://www.bjs.gov/content/pub/pdf/lpd13et.pdf>.

five years. Police Executive Research Forum, *How Are Innovations in Technology Transforming Police?* at 31 (2012).¹⁰ Those predictions were borne out by a subsequent study that found an estimated 66% of “police agencies with 100 or more officers” had access to LPRs. Cynthia Lum, et al., *The Rapid Diffusion of License Plate Readers in U.S. Law Enforcement Agencies: A National Survey* 4 (2016).¹¹

And the technology is rapidly expanding to smaller police departments and municipalities. The cost of deploying this policing technique has dropped dramatically with the addition of new software-based services that utilize existing cameras (including traffic cameras). Josh Kaplan, *License Plate Readers Are Creeping Into Neighborhoods Across the Country*, Slate (July 10, 2019).¹² As recently as 2010, a police department would have to spend \$10,000 or more per camera, which would limit small departments to only a few ALPRs. *Id.* Now with software-based systems, those same departments can afford to operate hundreds of ALPRs. *Id.* One county said that whereas they could afford to operate two ALPRs in 2010, they will have nearly 500 in operation by the end of 2019. *Id.* The majority of departments that had previously chosen not to adopt ALPRs had done so for financial reasons. Lum et al., *supra*, at 5.

¹⁰ https://www.policeforum.org/assets/docs/Critical_Issues_Series/how%20are%20innovations%20in%20technology%20transforming%20policing%202012.pdf.

¹¹ <http://cebc.org/wp-content/lpr/LPR-National-Survey-Report-2016.pdf>.

¹² <https://slate.com/technology/2019/07/automatic-license-plate-readers-hoa-police-openalpr.html>.

B. The use of Automated License Plate Readers has significantly increased the number of traffic stops and false positives.

ALPRs manufacturers market their products as a technique useful to “hunt for” vehicles in a way that was previously impossible without substantial further investment in labor. Leonardo, *ALPR Solutions and Law Enforcement* (2019).¹³ ALPR manufacturers have stated that the cameras are capable of recording thousands of plates per minute. Roselyne Reyes, *LPR Technology*, *Police Magazine* (Apr. 7, 2016) (Claiming that one system can capture at a rate of 5,000 plates a minute on cars traveling up to 200 miles per hour across three lanes of traffic);¹⁴ Leonardo, *Mobile Plate Hunter 900 Series* (2009) (listing a capture rate of 1,500 plates a minute “day or night, in any weather” at speeds up to 120 miles per hour across four lanes of traffic).¹⁵ That means that a few ALPR cameras can generate millions of scans every day. The ten ALPR cameras of Minneapolis, a city of around 400,000 inhabitants, captured 4.9 million license plates in the program’s first year. Eric Roper, *City Cameras Track Anyone, Even Minneapolis Mayor Ryback*, *Star Tribune* (Sep. 19, 2014).¹⁶ The 26-camera ALPR system of Fremont, California, with population around 230,000,

¹³ <https://www.leonardocompany-us.com/lpr/who-we-serve/alpr-law-enforcement>.

¹⁴ <https://www.policemag.com/342009/lpr-technology>.

¹⁵ Available at <https://www.documentcloud.org/documents/2690528-Assorted-Port-Arthur-documents.html#document/p10/a271798>.

¹⁶ <http://www.startribune.com/aug-17-2012-city-cameras-track-anyone-even-minneapolis-mayor-rybak/166494646/>.

generated a dizzying 20 million license plate scans between August 2017 and July 2018. Joseph Geha, *How Fremont Police Have Quietly Accumulated Expansive Surveillance Tools*, East Bay Times (Oct. 5, 2018).¹⁷

ALPR use has been shown to increase traffic stops. An experiment carried out by the Police Executive Research Forum found that ALPRs allowed officers to check eight times as many plates, generated over four times as many hits, and resulted in over two times as many arrests. Police Executive Research Forum, *How Are Innovations in Technology Transforming Police?* 30 (2012). PERF noted that their estimate of ALPR impact was “conservative” because it compared ALPR use to “extensive manual checking by a specialized unit.” *Id.* Had PERF compared ALPR use to “a regular patrol doing sporadic checks,” it would have seen “an even greater impact.” *Id.* at 31.

The increased scanning of vehicles has already led to a significant increase in traffic stops in locations that adopt ALPRs for traffic enforcement. In Montgomery County, Maryland, one officer scanned more than 48,000 vehicles in 98 hours over 27 days, leading to 255 traffic citations, including 26 for suspended licenses. Roberts & Casanova, *supra*, at 23. In the three months after Holmes Beach, Florida installed five ALPR cameras, the police department made 127 traffic stops and 40 arrests. Dylan Hart, *License Plate Readers Net Arrests, Raise Privacy Concerns*, Sarasota Herald Tribune (Jul. 22, 2019).¹⁸ During Fourth of

¹⁷ <https://www.eastbaytimes.com/2018/10/05/mostly-behind-the-scenes-fremont-police-have-accumulated-expansive-surveillance-tools/>.

¹⁸ <https://www.govtech.com/public-safety/License-Plate-Readers-Net-Arrests-Raise-Privacy-Concerns.html>.

July weekend, the system scanned over 234,000 vehicles, pinging 1,993 vehicles whose registered owners were sanctioned in some way—far more than the small police department could pursue. *Id.*

In some locations, suspended licenses generate so many ALPR alerts that officers could spend their entire shifts conducting only those stops. That should come as no surprise because 7% of all drivers in the United States have suspended licenses. Suspended Driver Alternative Reinstatement Working Group, Am. Assoc. of Motor Vehicle Admins., *Reducing Suspended Drivers and Alternative Reinstatement: Best Practices* 8 (Nov. 2018) [hereinafter AAMVA Alternative Reinstatement Working Group].¹⁹ Some police departments that use ALPRs for traffic enforcement report that alerts from DMV record hits were so frequent—as much as every few seconds—that officers had to ignore them or turn off matches to expired registrations and suspended licenses. Keith Gierlack et. al, *supra*, at 50.

ALPR systems also make mistakes. ALPRs are particularly susceptible to read errors, where the system misreads the numbers on the license plate, and record errors, where the vehicle’s record in the database is out of date or otherwise incorrect.²⁰ If officers

¹⁹ <https://www.aamva.org/ReducingSuspendedDriver-AlternativeReinstatementBP/>.

²⁰ This Court is also well aware of the problem of errors in computer databases. While stopping short of permitting exclusion of evidence obtained as a result of an error in a police database, the Court observed in *Herring v. United States*, 555 U.S. 135 (2009), the fact that the error was negligent “is crucial to our holding that this error is not

are allowed to completely eschew observation, such errors will lead to improper stops and dangerous interactions between law enforcement officers and drivers. In one example from Kansas, an ALPR misread a “7” for a “2” on a license plate and matched to a vehicle listed as stolen, which led to the responding officer approaching the stopped vehicle with a drawn gun. Cyrus Farivar, *Due to License Plate Reader Error, Cop Approaches Innocent Man, Weapon in Hand*, Ars

enough by itself to require ‘the extreme sanction of exclusion.’” *Id.* at 140. On this point, four Justices dissented. As Justice Ginsburg wrote:

Electronic databases form the nervous system of contemporary criminal justice operations. In recent years, their breadth and influence have dramatically expanded. Police today can access databases that include not only the updated National Crime Information Center (NCIC), but also terrorist watchlists, the Federal Government's employee eligibility system, and various commercial databases. . . . The risk of error stemming from these databases is not slim. . . . Government reports describe, for example, flaws in NCIC databases, terrorist watchlist databases, and databases associated with the Federal Government's employment eligibility verification system. . . . Inaccuracies in expansive, interconnected collections of electronic information raise grave concerns for individual liberty.

Id. at 155 (Ginsburg, J., dissenting).

Technica (Apr. 23, 2014).²¹ In another example police stopped the chair of the Oakland Privacy Advisory Commission at gunpoint because his rental car was erroneously flagged as stolen. Lisa Fernandez & Brooks Jarosz, *Privacy Advocate Sues CoCo Sheriff's Deputies After License Plate Readers Target His Car Stolen*, KTVU (Feb. 19, 2019).²² The rental vehicle in the Oakland case had been stolen and subsequently recovered—but no one had updated the car's record in major ALPR provider Vigilant Solution's database. *Id.* Mike Sena, Executive Director of the Northern California Regional Intelligence Center, a central repository that collects data for 28 police agencies, has noted that questionable read accuracy in particular means that “law enforcement should not take action just because they receive an alert” but should instead “make sure [the vehicle] is actually wanted or connected with a subject of an investigation.” *Id.* Sena stated that he had “absolutely” seen instances where police had received an alert, did not confirm the plate, stopped the car “and it was the wrong car.” *Id.*

The growing market for carsharing will also magnify the impact of ALPRs on drivers who have committed no traffic violation. Carsharing apps allow vehicle owners to rent out their cars to the app's users, much like Airbnb allows owners to rent out space in their homes. One peer-to-peer carsharing company,

²¹ <https://arstechnica.com/tech-policy/2014/04/due-to-license-plate-reader-error-cop-approaches-innocent-man-weapon-in-hand/>.

²² <http://www.ktvu.com/news/privacy-advocate-detained-at-gunpoint-when-licence-plate-readers-mistakenly-marked-his-car-stolen>.

Turo, lists over 350,000 vehicles for rent in the United States and three other countries and has over ten million users. Turo, *About* (2019).²³ The carsharing market is expected to grow to \$12 billion by 2024. Global Marketing Insights, *Carsharing Market Size by Model, Growth Potential, Competitive Market Share & Forecast, 2018-2024* (July 2019).²⁴ If this Court adopts the rule proposed by Kansas, more and more unsuspecting carshare users will be pulled over for the suspended licenses of the car owner, or carsharing apps will ban vehicle owners with suspended licenses from listing their cars on the apps. The harm resulting from the first consequence is obvious: drivers with no connection to the suspended driver, and thus no reason to think they will be pulled over by police, will be subjected to the “physical and psychological intrusion” of what will seem to the driver to be a random traffic stop. *Delaware v. Prouse*, 440 U.S. at 657. The harm resulting from the second consequence will be just as acute: vehicle owners with suspended licenses will be prevented from putting their property to use in a way that is perfectly legal and reasonable. The ban would compound the harm on the economically disadvantaged, who may have lost their other sources of income due to their license suspension.

C. The use of Automated License Plate Readers disproportionately impacts disadvantaged and minority communities.

The combined impact of ALPRs and the proposed *per se* rule will fall disproportionately on

²³ <https://turo.com/en-us/about>.

²⁴ <https://www.gminsights.com/industry-analysis/carsharing-market>.

disadvantaged communities and people of color. These groups are most heavily surveilled by ALPRs. License suspension in these communities often occurs for reasons completely unrelated to traffic safety, including unpaid court fines, which means that a temporary seizure of their vehicle would serve no traffic safety purpose. In addition, people of color are disproportionately likely to be searched during traffic stops and are also more likely to be searched based on less evidence than white drivers.

ALPR systems are disproportionately deployed in low income and minority communities, often on the premise that these locations are high crime areas. For example, an analysis of eight days of ALPR data from Oakland, California—covering over 63,000 license plate scans and over 48,000 unique plates—revealed that lower income neighborhoods, as well as those with high black and Latino populations, were disproportionately captured by ALPR patrols. Electronic Frontier Foundation, *What You Can Learn From Oakland's Raw ALPR Data* (Jan 21, 2015).²⁵ ALPRs are also used to “virtually gate” communities such as McKeesport, an economically disadvantaged town near Pittsburgh, allowing police to monitor every car entering and leaving the town. Josh Kaplan *License Plate Readers Are Creeping Into Neighborhoods Across the Country*, Slate (Jul. 10, 2019). As a result, disadvantaged communities and people of color are more likely to have their license plate scanned by an ALPR.

Economically disadvantaged households with more drivers are significantly more likely to be sharing one single car than those averaging a higher

²⁵ <https://www.eff.org/deeplinks/2015/01/what-we-learned-oakland-raw-alpr-data>.

income. According to the Bureau of Transportation Statistics, 66% of households in which three drivers share one car have a total income less than \$50,000 and only 3% of households with a total income over \$200,000 share one car between three drivers. Fed. Highway Admin., Tabulation of *2017 National Household Travel Survey* (Sept. 4, 2019).²⁶ In further illustration of the disparity in car ownership based on socioeconomic status, 52% of households sharing one car with four drivers are comprised of households with a total income of less than \$50,000. Meanwhile, 85% of the households in which there are four cars for four drivers make \$50,000 or more per year. *Id.* Therefore, the likelihood that the operator of a car is not the registered driver of that car has a direct correlation to their economic status.

Disadvantaged and minority communities are also heavily impacted by license suspensions for failure to pay fines and fees. Nationwide, 7% of all drivers have a suspended license, and one in three of those drivers had their license suspended for non-safety reasons. AAMVA Alternative Reinstatement Working Group, *supra*, at 3. That translates to over seven million drivers who, at any given time, have licenses suspended for failure to pay fines and fees. These failure-to-pay suspensions are correlated with income level and race. In California, low household income and license suspension for failure to pay fines are highly correlated. Stephen Bingham et al., *Stopped, Fined, Arrested: Racial Bias in Policing and Traffic Courts in California* 7 (Apr. 2016).²⁷ The suspension rate for

²⁶ Available at <https://perma.cc/3T4S-96Y2>.

²⁷ https://lccr.com/wp-content/uploads/Stopped_Fined_Arrested_BOTRCA.pdf.

failure to pay fines is also highly correlated with the percentage of the population that is black. *Id.* at 8. Disadvantaged and minority communities in New York and Chicago are similarly impacted by failure-to-pay license suspensions. Laura Nolan, Woodstock Institute, *The Debt Spiral: How Chicago's Vehicle Ticketing Practices Unfairly Burden Low-Income and Minority Communities* 12 (June 2018);²⁸ Joanna Weiss & Claudia Wilner, Driven by Justice Coalition, *Opportunity Suspended: How New York's Traffic Debt Suspension Laws Disproportionately Harm Low-Income Communities and Communities of Color* (2019).²⁹ Across the country, license suspensions hit disadvantaged and minority communities the hardest.

Because drivers suspended for failure-to-pay are far less dangerous on the road than drivers who receive moving violations, officers that rely solely on ALPR alerts for suspended licenses, and not observations of unsafe driving, may miss real safety threats while pursuing vehicles that do not pose a danger to others. Drivers suspended for non-safety reasons are five times less likely to commit a moving violation and almost three times less likely to be involved in a crash during the suspension period than drivers suspended for safety reasons. AAMVA Alternative Reinstatement Working Group, *supra*, at 8. This makes sense: drivers suspended for non-safety reasons, such as failure-to-pay, were not cited for dangerous driving in the first place. Because they are less likely to violate traffic

²⁸ <https://woodstockinst.org/wp-content/uploads/2018/06/The-Debt-Spiral-How-Chicagos-Vehicle-Ticketing-Practices-Unfairly-Burden-Low-Income-and-Minority-Communities-June-2018.pdf>.

²⁹ <https://www.drivenbyjustice.org>.

laws, these drivers are also less likely to attract attention from police who rely on observation of unsafe driving to make a stop. Thus, reliance on ALPR alerts for the suspended license of a registered owner alone may distract officers from actual safety concerns. As the Suspended Driver Alternative Reinstatement Working Group of the American Association of Motor Vehicle Administrators recommends, because “the limited highway safety resources should be focused on reducing the risk of dangerous drivers, using a driver’s license suspension for non-highway safety violations should be avoided.” *Id.* at 3.

Use of ALPRs, in conjunction with a rule that allows for traffic stops premised solely on failure to pay fines, has already been shown to skew incentives for officers charged with traffic enforcement—and to hurt low income and black drivers in particular. When Port Arthur, Texas—a city of 55,000 with poverty and unemployment rates around double the state’s average—began to use ALPRs to stop cars associated with drivers with unpaid traffic tickets, the alerts were, according to one officer, “just constant . . . you’d get 40 or 50 hits a day.” Alex Campbell & Kendall Taggart, *A Traffic Cop’s Ticket Bonanza in a Poor Texas Town*, Buzzfeed News (Jan. 26, 2016).³⁰ People who could not immediately pay the fines were hauled to jail. *Id.* During the two-year height of the program, 1,500 people were jailed as a result of these stops. *Id.* Black drivers were disproportionately arrested; while black people were 40% of the population of the city, they made up 70% of the arrests for failure to pay. *Id.* The money the city spent locking people up for unpaid fines rose 175%

³⁰ <https://www.buzzfeednews.com/article/alexcampbell/the-ticket-machine>.

from \$152,800 a year to \$415,000 a year. *Id.* At the same time, revenue from collected fines exploded from \$1.2 million to \$2.1 million, creating an incentive for officers to continue to pursue vehicles that were not being driven dangerously.

Because officers cannot pursue every ALPR alert, officers will retain discretion over whom to pull over—and studies show that officers are more likely to pull over black drivers than white drivers. A Stanford study of 60 million stops across 20 states found that black drivers are 1.4 times more likely to be stopped than white drivers. Emma Pierson et al., Stanford Open Policing Project, *A Large-scale Analysis of Racial Disparities in Police Stops Across the United States* 5 (2016).³¹ An analysis of 100 million traffic stops found that fewer black drivers are stopped at night when the driver's race is difficult to determine—further evidence that racial bias motivates many traffic stops. Emma Pierson et al., Stanford Computational Policy Lab, *A Large-scale Analysis of Racial Disparities in Police Stops Across the United States* 5 (March 23, 2019).³²

The proposed per se rule, combined with ALPR use, will also subject more black and Latino drivers to invasive searches. The Stanford study found that Black and Latino drivers are more than twice as likely as white drivers to be searched during a traffic stop. *Id.* at 5. Evidence also indicates that the bar for searching black and Latino drivers is generally lower than for white drivers, meaning an officer is more likely to decide to search a black or Latino driver given

³¹ <https://5harad.com/papers/traffic-stops.pdf>.

³² <https://5harad.com/papers/100M-stops.pdf>.

the same contextual factors, such as age, gender, location, and behaviors such as nervousness. *Id.* at 6.

Local studies confirm the nationwide trends. The Greensboro, NC police department reports that black drivers are more than twice as likely to be searched during a traffic stop despite the fact that white drivers are more likely to be discovered with contraband. Greensboro Police Department, *Analysis of Traffic Stop and Search Data 3* (2016).³³ A Stanford analysis of 13 months of stop data in Oakland found that, 60% of stops were of black people, who make up only 28% of the Oakland population. Rebecca C. Hetey et al, *Data for Change: A Statistical Analysis of Police Stops, Searches, Handcuffings, and Arrests in Oakland, Calif., 2013-2014*, Stanford Social Psychological Answers to Real-World Questions at 10 (June 23, 2016).³⁴ The study also found that, while only 20% of officers had stopped a white person, 96% of officers had stopped a black person. *Id.* Officers in Oakland were three times as likely to perform a discretionary search of a black person, and more than twice as likely to handcuff a black person after a stop. *Id.* Oakland police officers used “more severe legal language (e.g., mentioned probation, parole, and arrest) and offered fewer explanations for the stop” when stopping black citizens than when stopping whites. *Id.* Oakland residents perceived that difference. Black and Hispanic residents felt more disrespected and misunderstood during traffic stops than white residents. *Id.*

This Court has recognized that traffic stops are a “physical and psychological intrusion” that “interfere

³³ <https://www.greensboro-nc.gov/departments/police/crime-data/traffic-stops-searches>.

³⁴ <https://sparq.stanford.edu/our-work/criminal-justice>.

with freedom of movement, are inconvenient, and consume time” and “create substantial anxiety.” *Delaware v. Prouse*, 440 U.S. at 457. Traffic stops are especially harrowing for people of color. Recent research shows that police stops have a significant negative psychological effect on young people of color. Two studies of young black and Latino men found that police stops are directly correlated with delinquent behavior, psychological distress, trauma, and anxiety. Amanda Geller et al., *Aggressive Policing and the Mental Health of Young Urban Men*, 104 Am. J. Public Health 2321 (2014); Juan Del Toro et al., *The Criminogenic and Psychological Effects of Police Stops on Adolescent Black and Latino Boys*, 116 PNAS 8261 (Apr. 8, 2019). Furthermore, negative personal experiences with the police are four to fourteen times more psychologically impactful than positive experiences. Wesley G. Skogan, *Asymmetry in the Impact of Encounters with Police*, 16 Policing and Soc’y 99 (Jan. 2007). Negative experiences with the police, like a random stop, significantly distort perceptions of the police. Beyond simple distrust, negative interactions with police, including stopping without cause, are correlated with psychological distress and depression. J.E. DeVlyder et al., *Prevalence, Demographic Variation and Psychological Correlates of Exposure to Police Victimization in Four US Cities*, 26 Epidemiology & Psychiatric Sciences 466 (2017).

II. This Court should not adopt a rule that allows traffic stops based solely on ALPR alerts that the license of a vehicle’s registered owner is suspended.

This Court has long recognized that it “is obligated—as [s]ubtler and more far-reaching means of

invading privacy have become available to the Government—to ensure that the ‘progress of science’ does not erode Fourth Amendment protections.” *Carpenter v. United States*, 138 S. Ct. 2206, 2223 (2018) (quoting *Olmstead v. United States*, 277 U.S. 438, 473–474 (1928) (Brandeis, J., dissenting)). The Automated License Plate Readers that are now being deployed across the country are the latest example of a “powerful, computer-based record-keeping system that facilitates arrests in ways that have never before been possible.” *Arizona v. Evans*, 514 U.S. 1, 17 (1995) (O’Connor, J., concurring). As Justice O’Connor explained, the police are “entitled to enjoy the substantial advantages this technology confers. They may not, however, rely on it blindly. With the benefits of more efficient law enforcement mechanisms comes the burden of corresponding constitutional responsibilities.” *Id.* at 17–18.

When confronting “new concerns wrought by digital technology, this Court has been careful not to uncritically extend existing precedents.” *Carpenter*, 138 S. Ct. at 2214 (citing *Riley v. California*, 573 U.S. 373, 386 (2014)). To that end, the Court has rejected “mechanical interpretation” of the Fourth Amendment when the interpretation would leave individuals “at the mercy of advancing technology.” *Id.* (quoting *Kyllo v. United States*, 533 U.S. 27, 35 (2001)).

In 1975 the Court in *United States v. Brignoni-Ponce*, 422 U.S. 873 (1975), extended the *Terry*-stop rule to allow warrantless automobile stops in certain limited circumstances, and permitted border patrol agents to “stop vehicles only if they are aware of specific articulable facts, together with rational inferences from those facts, that reasonably warrant

suspicion that the vehicles contain aliens who may be illegally in the country.” *Id.* at 884. A few years later, the Court rejected the State of Delaware’s policy authorizing patrol officers to conduct automobile stops “subject to no constraints” for the purpose of conducting “a license and registration check.” *Delaware v. Prouse*, 440 U.S. at 655. The Court found that, “except in those situations in which there is at least articulable and reasonable suspicion that a motorist is unlicensed or that an automobile is not registered, or that either the vehicle or occupant is otherwise subject to seizure for violation of law,” it is unlawful to stop an automobile and detain the driver in order to check his license and registration. *Id.* at 663.

While the reasonable suspicion standard for license checks might have been justified in 1979, it should not be extended to permit stops based solely on ALPR alerts for suspended licenses of a vehicle’s registered owner. This Court has sought to “assure[] preservation of that degree of privacy against government that existed when the Fourth Amendment was adopted.” *Carpenter*, 138 S. Ct. at 2214 (2018) (quoting *Kyllo*, 533 U.S. at 34). But the deployment of automated license plate readers has fundamentally changed the way that patrol officers assess car stops. The *Terry*-stop rule, extended in a limited fashion to automobile stops in *Brignoni-Ponce* and *Prouse*, is premised on the development of reasonable, articulable suspicion by an officer based on their observations and experience. The scope of that activity is necessarily limited by what the officer can physically see and process, and thus the likelihood of a stop being triggered solely by a license plate record check was relatively low. But with the advent of automated scanning and searching of registration databases, the odds

would go up exponentially. An officer simply cannot scan or process license plate information the same way that an automated reader can. As one ALPR manufacturer states, while an officer could manually check between 50-100 license plates in a shift, an ALPR system can check 5,000 plates or more. PIPS Technology, *ALPR Applications* (2019).³⁵ Searches triggered by automated scans would therefore be different “in both a quantitative and qualitative sense” from searches based on human observation. *Riley*, 573 U.S. at 393. Given the significant risk of false positives and increased stops of individuals that pose no traffic safety risk, the petitioner’s *per se* rule should be rejected.

³⁵ <http://www.pipstechnology.com/applications>.

CONCLUSION

For the above reasons, *amici* respectfully ask this Court to affirm the decision of the Supreme Court of Kansas.

Respectfully submitted,
MARC ROTENBERG
ALAN BUTLER
MEGAN IORIO
ELECTRONIC PRIVACY
INFORMATION CENTER (EPIC)
1519 New Hampshire
Avenue NW
Washington, DC 20036
(202) 483-1140
(202) 483-1248 (fax)
rotenberg@epic.org

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