MISCARRIAGE OF JUSTICE: LICENSE PLATE SURVEILLANCE OF PREGNANCY POST-CARPENTER

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ABSTRACT

Fourth Amendment jurisprudence on reasonable expectations in public developed in response to rudimentary surveillance technologies. As surveillance technology has advanced, it has eroded the individual privacy interests the Founders sought to preserve in the Fourth Amendment. However, the Court's holding in Carpenter v. United States that individuals have a reasonable expectation of privacy in the whole of their movements opens up an avenue for the preservation of individual privacy in public. The Carpenter holding is especially critical to the protection of pregnant people's privacy interests in a post-Dobbs v. Jackson Women's Health Organization. As restrictive abortion laws have proliferated across the nation, pregnant people are more likely to become the targets of government surveillance. Automated license plate readers pose a particular threat to pregnant peoples' privacy interests because they allow law enforcement to access historical records logging a vehicles location. However, despite the Court's instructive holding in Carpenter, lower courts have ruled that officers accessing automated license plate reader databases without getting a warrant does not constitute an unreasonable search under the Fourth Amendment. This Note argues that a proper analysis of a motion to suppress automated license plate reader records uses four factors from Carpenter v. United States: the capacity of the technology to reveal the privacies of life, how efficient it is compared to traditional investigative techniques, the precision of surveillance and the retrospective quality of the records. Applied to automated license plate readers, this more structured approach to a reasonable expectation of privacy analysis results in outcomes that better protect the Fourth Amendment interests of pregnant people.

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INTRODUCTION

Jane Doe is a pregnant resident of Alabama and miscarries at home.[1] Scared and in pain, she calls 911 and receives care at a nearby emergency room. One of the nurses that attends to Doe makes a report to local law enforcement that Doe miscarried and could have been using substances.[2] The law enforcement agency begins an investigation by questioning Jane Doe about her miscarriage and gets her permission to search her phone.[3] On her phone, law enforcement officers see that Doe had searched the internet for ways to end a pregnancy.[4] Suspecting that Jane Doe aborted her pregnancy in violation of Alabama's laws,[5] the law enforcement agency furthers its investigation. The local police department has recently invested in an extensive automated license plate reader network, so officers run a query for Jane Doe's license plate number in the database.[6] This search returns dozens of images of Jane Doe's car around town which include the various precise location coordinates of her car, when her car was at each location, and what direction Jane was traveling in.[7] Among the query results are several images from license plate readers positioned near a reproductive health clinic and indicate that Jane Doe had visited the clinic multiple times.[8] Upon finding the license plate images, the State charges Jane Doe with illegally aborting her pregnancy.[9] At trial, Jane Doe moves to suppress the evidence that law enforcement got from the automated license plate reader database, claiming that by accessing this information without a warrant, law enforcement conducted an unreasonable search and infringed upon her Fourth Amendment rights.[10]

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[1] Of the 1,396 pregnancy-related criminal arrests that happened in the United States between 2006 and June 2022, 46.5% were in Alabama. PURVAJA S. KAVATTUR ET AL., PREGNANCY JUST., THE RISE OF PREGNANCY CRIMINALIZATION: A PREGNANCY JUSTICE REPORT 4 (2023).

[2] The most common basis for pregnancy-related arrests are reports that healthcare and family regulation workers, such as doctors, nurses, medical assistants, and social workers, make to law enforcement. *See* KAVATTUR ET AL., *supra* note 1, at 25.

[3] *See infra* Part I.I.B.

[4] *See* Cat Zakrzewski, Pranshu Verma & Claire Parker, *Texts, Web Searches About Abortion Have Been Used to Prosecute Women*, WASH. POST (July 3, 2022), https://www.washingtonpost.com/technology/2022/07/03/abortion-data-privacy-prosecution [https://perma.cc/3FPX-769Y].

[5] Julia Haines, *Where State Abortion Laws Stand Without Roe*, U.S. NEWS (Mar. 6, 2024), https://www.usnews.com/news/best-states/articles/a-guide-to-abortion-laws-by-state [https://perma.cc/AF2X-9RH6]; *Interactive Map: U.S. Abortion Policies and Access After Roe*, GUTTMACHER INST. (Feb. 19, 2025), https://states.guttmacher.org/policies/abortion-policies [https://perma.cc/P4P2-JAAK]; Allison McCann & Amy Schoenfeld Walker, *Tracking Abortion Bans Across the Country*, N.Y. TIMES (Feb. 19, 2025), https://www.nytimes.com/interactive/2022/us/abortion-laws-roe-v-wade.html [https://perma.cc/BS2Z-YSK5].

[6] *See infra* Part I.II; *see also Automated License Plate Readers (ALPRs)*, ELEC. FRONTIER FOUND. (Aug. 28, 2017), https://www.eff.org/pages/automated-license-plate-readers-alpr [https://perma.cc/G4BU-JLEQ]; Dave Maass, *Automated License Plate Readers Threaten Abortion Access. Here's How Policymakers Can Mitigate the Risk*, ELEC. FRONTIER FOUND. (Sep. 28, 2022), https://www.eff.org/deeplinks/2022/09/automated-license-plate-readers-threaten-abortion-access-heres-how-policymakers [https://perma.cc/Y8UT-HT5S]; Rebecca Chowdhury, *America's High-Tech Surveillance Could Track Abortion-Seekers, Too, Activists Warn*, TIME (June 6, 2022), https://time.com/6184111/abortion-surveillance-tech-tracking [https://perma.cc/57SD-HDNF]; Guy Oron, *Immigrants and people seeking abortions at risk through new license–plate reading tech*, REAL CHANGE (Dec. 14, 2022), https://www.realchangenews.org/news/2022/12/14/immigrants-and-people-seeking-abortions-risk-through-new-license-plate-reading-tech [https://perma.cc/UA5R-ZHXL].

[7] ELEC. FRONTIER FOUND., *supra* note 6; s*ee also* Maass, *supra* note 6.

[8] *See* Maass, *supra* note 6; Vasudha Talla, *Documents Reveal ICE Using Driver Location Data From Local Police for Deportations*, AM. C.L. UNION (Mar. 13, 2019), https://www.aclu.org/news/immigrants-rights/documents-reveal-ice-using-driver-location-data [https://perma.cc/797T-DRFW]; Adam Goldman & Matt Apuzzo, *With Cameras, Informants, NYPD Eyed Mosques*, ASSOCIATED PRESS (Feb. 23, 2012), https://www.ap.org/media-center/ap-in-the-news/2012/with-cameras-informants-nypd-eyed-mosques [https://perma.cc/K5E7-CNT9].

[9] *See* KAVATTUR ET AL., *supra* note 1; *see* Zakrzewski et al., *supra* note 4.

[10] *See infra* Section How Lower Courts Have Applied the Carpenter Standard to Automated License Plate Readers for information on how

Automated license plate readers ("ALPRs") are high speed cameras that capture information from every motor vehicle that passes them.[11] This information includes a vehicle's license plate number, registration stickers, the location coordinates of the vehicle, the exact time the vehicle was at that location, and sometimes an image of the individual driving the car.[12] Once an ALPR takes a picture, it uploads and stores the image in a database.[13] Law enforcement agencies nationwide use ALPRs, develop their own databases, and contract with private vendors for access to massive ALPR databases.[14] Use of the technology is not widely regulated, so most law enforcement agencies are free to access information about where a certain vehicle was at a given time without getting a warrant.[15] Typically, law enforcement agencies use ALPRs to assess traffic violations, find stolen cars, track cars associated with outstanding warrants, and investigate crimes.[16] However, only a fraction of the data ALPRs collect is relevant to public safety.[17] Additionally, law enforcement agencies and officers alike have abused ALPR technology in discriminatory ways.[18]

Although law enforcement's unregulated use of ALPR technology opens most people up to superfluous surveillance,[19] it poses a heightened threat to pregnant people as a result of states' judicially-sanctioned interest in protecting potential life post *Dobbs v. Jackson Women's Health Organization*.[20] In the wake of *Dobbs*, law enforcement agencies might engage in increased surveillance of pregnant individuals to enforce newly-enacted restrictions on abortions.[21] ALPR databases will be a valuable tool in this pursuit because once pieced together, individual ALPR

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criminal defendants have moved to suppress ALPR evidence at trial on the theory that without a warrant, searching an ALPR database constitutes an unreasonable search under the Fourth Amendment.

[11] ELEC. FRONTIER FOUND., *supra* note 6.

[12] *Id.*

[13] *Id.*

[14] *Id*; Ángel Díaz & Rachel Levinson-Waldman, *Automatic License Plate Readers: Legal Status and Policy Recommendations for Law Enforcement Use*, BRENNAN CTR. FOR JUST. (Sep. 10, 2020), https://www.brennancenter.org/our-work/research-reports/automatic-license-plate-readers-legal-status-and-policy-recommendations [https://perma.cc/K6BB-FQ7D].

[15] *See Automated License Plate Readers: State Statutes*, NAT'L CONF. OF STATE LEGISLATURES (Feb. 3, 2022) https://www.ncsl.org/technology-and-communication/automated-license-plate-readers-state-statutes [https://perma.cc/245F-HG5L]; Maass, *supra* note 6.

[16] *See* ELEC. FRONTIER FOUND., *supra* note 6.

[17] Only 0.05% of the average yearly 840,000,000 plate scans in California were relevant to investigations related to public safety in 2018 and 2019. *Id.*

[18] Police in New York City have used ALPR cameras to identify vehicles parked outside of a local mosque. Goldman et al., *supra* note 8; *see also* Dave Mass & Jeremy Gillula, *What You Can Learn from Oakland's Raw ALPR Data*, ELEC. FRONTIER FOUND. (Jan. 21, 2015), https://www.eff.org/deeplinks/2015/01/what-we-learned-oakland-raw-alpr-data [https://perma.cc/4XHD-LPL6]; Talla, *supra* note 8; Nicole K. McConlogue, *Discrimination on Wheels: How Big Data Uses License Plate Surveillance to put the Brakes on Disadvantaged Drivers*, 18 STAN. J. OF CIV. RTS. & C.L. 279 (2022).

[19] Patrick McCreevy, *LAPD automatic license plate readers pose a massive privacy risk, audit says*, L.A. TIMES (Feb. 13, 2020), https://www.latimes.com/california/story/2020-02-13/privacy-risks-automatic-license-plate-readers-lapd [perma.cc/ZS65-DM4U] ("Most of the images collected by [ALPRs] are unrelated to criminal cases. . . 99.9% of the 320 million images the LAPD stored came from vehicles that were not on a list of those involved in criminal investigations when the image was made. . . .").

[20] 597 U.S. 215 (2022); *see*, *e.g.*, Chowdhury, *supra* note 6; Maass, *supra* note 6; Thor Benson, *The Danger of License Plate Readers in Post-Roe America*, WIRED (July 7, 2022), https://www.wired.com/story/license-plate-reader-alpr-surveillance-abortion [https://perma.cc/QUG6-J65K].

[21] *See*, *e.g.*, Sam Sabin, *Digital Surveillance in a Post-Roe World*, POLITICO (May 5, 2022), https://www.politico.com/newsletters/digital-future-daily/2022/05/05/digital-surveillance-in-a-post-roe-world-00030459 [https://perma.cc/4MNU-324H]; David Sherfinski & Avi Asher-Schapiro, *U.S. Abortion War Spotlights Women's Risk from Online Tracking*, REUTERS (May 5, 2022), https://www.reuters.com/legal/litigation/us-abortion-war-spotlights-womens-risk-online-tracking-2022-05-05/ [https://perma.cc/SAC5-P372]; Benson, *supra* note 20.

scans can reveal a vehicle's movements, disclosing where the driver went, her political associations, and other intimate information like whether she is pregnant.[22] However, location surveillance can be subject to Fourth Amendment restrictions.[23] Location tracking and surveillance was the subject of *Carpenter v. United States*,[24] where the Supreme Court held that individuals have a reasonable expectation of privacy in the whole of their movements. This may implicate a warrant requirement for government use of similar technologies, like ALPRs.[25] Some criminal defendants have moved to suppress ALPR evidence on the theory that the license plate readers can reveal the whole of their movements and so should be subject to a warrant requirement under *Carpenter*. [26] Thus far, lower courts have rejected these arguments without giving full consideration to the factors that the Supreme Court used to decide *Carpenter*.[27]

This Note argues that litigants and district courts can minimize the threat that ALPR technology poses to the Fourth Amendment privacy interests of pregnant people by analyzing motions to suppress ALPR evidence using four factors from the Supreme Court's decision in *Carpenter*. The four-factor analysis should consider (i) the capacity of the technology to reveal intimate details about individuals' lives, (ii) how efficient the technology is compared to traditional investigative techniques, (iii) how precise the surveillance is, and (iv) whether the technology allows for retroactive surveillance.[28] Part I of this Note explores the reasonable expectation of privacy doctrine as updated in *Carpenter*, the surveillance and criminalization of pregnancy in the United States, the risks that ALPR technology poses to individuals' Fourth Amendment rights, and how district courts have assessed claims that *Carpenter* demands a warrant requirement for ALPR evidence. Part II of this Note analyzes how lower court decisions assessing the Fourth Amendment implications of ALPR technology departs from the Supreme court's reasoning in *Carpenter*. Finally, Part III of this Note demonstrates how by adopting a four-factor analysis of location surveillance technology that faithfully reflects *Carpenter*, district courts can develop a body of case law that is consistent with *Carpenter* and preserves the privacy interests of pregnant people in jurisdictions where there is no recognized right to get an abortion.

I. THE REASONABLE EXPECTATION OF PRIVACY, LICENSE PLATE READERS, AND POST-DOBBS INVASIONS OF PRIVACY

Advancement in surveillance technology is a driving force behind the Supreme Court's understanding of what constitutes a reasonable expectation of privacy under the Fourth Amendment. [29] The Supreme Court's decision in *Carpenter* delineates what expectations of

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[22] *See* ELEC. FRONTIER FOUND., *supra* note 6; Maass, *supra* note 6.
[23] *See* United States v. Jones, 565 U.S. 400, 404 (2012); Carpenter v. United States, 585 U.S. 296, 306–08 (2018).
[24] Carpenter v. United States, 585 U.S. 296 (2018).
[25] *See* Díaz et al., *supra* note 14.
[26] *See infra* Part I.I.C.
[27] *See infra* Part I.I.C; *infra* How Lower Courts Have Misapplied Carpenter to ALPR Technology .
[28] *See infra* How Lower Courts Have Misapplied Carpenter to ALPR Technology; *see* Carpenter v. United States, 585 U.S. 296, 309–10 (2018).
[29] *See, e.g.*, Kyllo v. United States, 533 U.S. 27, 34–35 (2001); Riley v. California, 573 U.S. 373, 403 (2014).

privacy are reasonable in the context of location surveillance should apply to surveillance technologies that have the capacity to reveal the whole of individuals' movements, like ALPRs.[30] Though law enforcement agencies have abused unregulated access to ALPRs in past efforts to target particularly vulnerable groups through location surveillance,[31] lower courts have held that accessing ALPR databases without a warrant is not a Fourth Amendment search.[32] However, ALPR databases have the capacity to expose the whole of an individual's movements and runs the risk of infringing upon individuals' reasonable expectations of privacy.[33] This risk is heightened for pregnant people because legitimate interest in the protection of potential life through restrictions on abortion practices may encourage increased surveillance in a post-*Dobbs* legal landscape.[34]

A. The Reasonable Expectation of Privacy

The Supreme Court has recognized that some expectations of privacy in the public arena are reasonable in response to advanced location surveillance.[35] Since the mid-twentieth century, courts have used the reasonable-expectation-of-privacy test to determine whether the government conducted an unreasonable search under the Fourth Amendment.[36] For decades, courts held that there is virtually no reasonable expectation of privacy in information that individuals expose to the public.[37] However, as surveillance technology has grown more sophisticated, the Supreme Court has expanded its conception of reasonable expectations of privacy to include the whole of one's movements, even those in public spaces.[38]

1. Expectations of Privacy in Public Spaces Before Carpenter v. United States

At the core of Fourth Amendment doctrine is the principle that "the Fourth Amendment protects people, not places."[39] In *Katz v. United States*, the Court rejected the government's arguments that the Fourth Amendment provides stronger protections in certain spaces, like the home, and weaker protections in public spaces.[40] Instead, the Court held that the Fourth Amendment protects the information individuals try to keep private, even if they are in public spaces.[41] This principle underlies the formal reasonable-expectation-of-privacy test that came out of Justice Harlan's concurrence in *Katz*.[42] Harlan's test requires courts make a two-pronged

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[30] *See Carpenter*, 585 U.S. at 320.
[31] *See supra* note 18.
[32] *See infra*, Part I.I.C.
[33] *See* Maass, *supra* note 6.
[34] *See* Dobbs v. Jackson Women's Health Org., 597 U.S. 215, 301 (2022); Maass, *supra* note 6.
[35] *See* Kyllo v. United States, 533 U.S. 27, 40 (2001); *Carpenter*, 585 U.S. at 311.
[36] *See* Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring); *see*, *e.g.*, California v. Greenwood, 486 U.S. 35, 40 (1988).
[37] *See Katz*, 389 U.S. at 351; *Greenwood*, 486 U.S. at 41.
(Sotomayor, J., Concurring) (Alito, J., Concurring); *Carpenter*, 585 U.S. at 309.
[39] *Katz*, 389 U.S. at 351.
[40] *See id.* at 350.
[41] *See id.* at 359.
[42] *See* Katz v. United States, 389 U.S. 347, 361 (1967) (Harlan, J., concurring). It is not clear why the Court adopted the concurrence's formulation of the test, but it has become the standard test, nonetheless. *Expectation of Privacy*, LEGAL INFO. INST.: CORNELL L. SCH., https://www.law.cornell.edu/wex/expectation_of_privacy [https://perma.cc/TX7F-WSNV] (last visited Apr. 6, 2024).

inquiry: first, whether a person demonstrated an actual subjective expectation of privacy and second, whether society is prepared to recognize that expectation of privacy as reasonable.[43] To satisfy the first prong of the test, an individual alleging that the government conducted an unreasonable search must establish that she had a subjective expectation of privacy.[44] The Court looks to how the individual behaved or actions she took as evidence of a subjective expectation of privacy.[45] To satisfy the second prong, the Court looks to what the wider society expects to remain private and how to preserve the degree of privacy at the time of Constitution's ratification.[46] In cases where defendants claim they had a subjective expectation of privacy in public, the Supreme Court has held that society does not widely accept their expectations as reasonable because anyone can freely observe things exposed to the public.[47] Therefore, the Court has historically held that there is no reasonable expectation of privacy in public.[48]

2. How Carpenter Addressed Extensive Location Surveillance of Public Movements

The Supreme Court's decision in *Carpenter* was narrow, but expanded individual privacy rights under the Fourth Amendment.[49] For decades, the Supreme Court has held that individuals have little reasonable expectation of privacy in public spaces, despite the widely accepted principle that the Fourth Amendment protects people, not places found in *Katz*.[50] Although some justices had previously voiced support for an expansion of the privacy individuals could reasonably expect in public,[51] the Court did not take this step until *Carpenter*.[52] In *Carpenter*, the Court held that individuals have a reasonable expectation of privacy in the whole of their movements.[53] The Court came to this conclusion because unlike singular, isolated public movements, the aggregate of a person's movements reveals the most private details of their life, like who they associate with, their political preferences, and personal health information.[54] This means that while limited location surveillance may not require a warrant, location surveillance that can reveal all of an individual's movements without a proper warrant likely constitutes an unreasonable search under the Fourth Amendment.[55]

The Court's analysis in *Carpenter* is highly fact specific but is grounded in an assessment

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[43] *See Katz*, 389 U.S. at 361.
[44] *Id.*
[45] *See id.* at 352 (holding that Katz demonstrated a subjective expectation of privacy in his telephone conversations by stepping into a telephone booth alone and shutting the door, excluding the world).
[46] *See* United States v. Jones, 565 U.S. 400, 406 (2012); Kyllo v. United States, 533 U.S. 27, 28 (2001).
[47] *See, e.g.*, Dow Chemical Co. v. United States, 476 U.S. 227 (1986); California v. Greenwood, 486 U.S. 35, 40 (1988); United States v. Knotts, 460 U.S. 276, 281–82 (1983).
[48] *See Katz*, 389 U.S. at 361 (Harlan, J., concurring); *Knotts*, 460 U.S. at 281–82; *Greenwood*, 486 U.S. at 40 (finding that people do not have a reasonable expectation in their discarded trash even if they have a subjective expectation of privacy because it is generally understood that trash is not private).
[49] *Carpenter*, 585 U.S. at 315.
[50] *Katz*, 389 U.S. at 351; *see Knotts*, 460 U.S. at 282.
[51] *See* United States v. Jones, 565 U.S. 400, 416, 429 (2012) (Sotomayor, J., Concurring) (Alito, J., Concurring).
[52] *See* Carpenter v. United States, 585 U.S. 296 (2018).
[53] *See id.* at 309.
[54] *See id*.
[55] *See id*.

of the surveillance technology's capacity to reveal the privacies of life, how efficient the technology was compared to traditional investigative techniques, how precise the surveillance was, and the surveillance's retroactive quality.[56] In *Carpenter*, law enforcement's use of extensive cell site location information ("CSLI") records to track the defendant drove the court to impose a warrant requirement.[57] Cell phones create CSLI records by automatically connecting to the nearest cell sites to get the best signal.[58] Every time a cell phone connects to a cell site, logs and stores a record of that connection without any action on the cell phone user's part.[59] When taken together, historical CSLI records log where a cell phone has been and when.[60] In *Carpenter*, law enforcement requested historical CSLI records from defendant Timothy Carpenter's cell service providers in an investigation of several robberies.[61] The cell service providers gave law enforcement access to CSLI records that contained 12,898 location points tracking Carpenter's movements over the span of 127 days.[62] The law enforcement agency never got a warrant to search Carpenter's CSLI.[63]

At trial, Carpenter moved to suppress the CSLI records, claiming that law enforcement conducted an unreasonable search under the Fourth Amendment by accessing his location records without getting a warrant, violating his reasonable expectation of privacy.[64] The Supreme Court took up the issue of whether the government conducted an unreasonable search under the Fourth Amendment by accessing Carpenter's historical CSLI.[65] The majority determined that the government did conduct an unreasonable search under the Fourth Amendment by analyzing CLSI's capacity to reveal the privacies of life, how efficient the technology was compared to traditional investigative techniques, how precise the surveillance was, and the surveillance's retroactive quality.[66]

i. Factor One: Capacity to Reveal the Privacies of Life

The first factor that the Supreme Court weighed in *Carpenter* was CSLI's capacity to reveal the privacies of an individual's life.[67] The concept 'privacies of life' comes from the Supreme Court's decision in *Boyd v. United States*,[68] where Justice Bradley wrote that the Fourth Amendment guards the "indefeasible right[s] of personal security, personal liberty, and private property."[69] Justice Sotomayor drew on this concept in her concurring opinion in *United States v.*

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[56] *See Carpenter,* 585 U.S. at 309.
[57] *Id*. at 320.
[58] *Id*. at 301.
[59] *See* Carpenter v. United States, 585 U.S. 296, 301 (2018).
[60] *See id*. at 309.
[61] *See* Carpenter v. United States, 585 U.S. 296, 296 (2018).
[62] *Id*. at 301-302.
[63] *Id*.
[64] *Id*.
[65] Carpenter v. United States, 585 U.S. 296, 303 (2018).
[66] *Id*. at 309, 320.
[67] *See id* at 309.
[68] Boyd v. United States, 116 U.S. 616 (1886).
[69] *Id*. at 630.

Jones, where she pointed to the fact that location surveillance has the capacity to reveal private information about individuals, like their religious or sexual associations.[70] Likewise, lower courts have been wary of location surveillance's expository nature and the capacity to reveal information about individual through their trips to places like the psychiatrist, abortion clinic, or synagogue.[71]

In *Carpenter*, the Court found that CSLI's capacity to reveal the private details of individuals' lives cut in favor of imposing a warrant requirement on law enforcement's ability to access historical CSLI.[72] The Court acknowledged Carpenter's expectation of privacy in his location as reasonable, citing to the broad societal understanding that no one, including the government, will track a person or vehicle for long enough to create a comprehensive log of every movement that individual makes.[73] With this expectation in mind, the Court considered the implications of the records the government accessed.[74] The Court warned that the 127 day long chronicle of Carpenter's movements could "provide[] an intimate window into a person's life, revealing . . . his 'familial, political, professional, religious, and sexual associations.'"[75] The Court made it clear that this is the kind of information that makes up the "privacies of life" the Fourth Amendment is meant to guard from unreasonable government searches.[76] For this reason, CSLI's capacity to reveal the privacies of life supported the Court's imposition of a warrant requirement.[77]

ii. Factor Two: Efficiency of Technology Compared to Traditional Investigative Techniques

The second factor the Supreme Court considered in its reasonable expectation of privacy analysis in *Carpenter* was how efficient CSLI is compared to traditional investigative tools.[78] The Court makes this consideration when assessing the risks of surveillance technology to ensure reasonable expectations of privacy do not erode as a result of technological advancement.[79] Comparing the investigative techniques historically available to law enforcement and the tools law enforcement have now as a result of advanced technology allows the Court to preserve individuals' Fourth Amendment privacy interests against undue intrusion.[80] Technology that is more efficient than fundamental surveillance methods make it easier for law enforcement to uncover information and conduct unreasonable searches.[81]

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[70] *Jones*, 565 U.S. at 416 (Sotomayor, J., concurring).
[71] *See*, *e.g.*, People v. Weaver, 12 N.Y.3d 433, 441–42 (N.Y. 2009) ("One need only consider what the police may learn, practically effortlessly, from planting a single [GPS] device. . . Disclosed in the data. . . [will be] trips to the psychiatrist, the plastic surgeon, the abortion clinic, the AIDS treatment center, the strip club, the criminal defense attorney, the by-the-hour motel, the union meeting, the mosque, synagogue or church, the gay bar and on and on.").
[72] *See Carpenter*, 585 U.S. at 309–310.
[73] *See id*. at 309, 320.
[74] *See id*. at 309.
[75] *Id*. at 309 (quoting Jones, 565 U.S. at 415 (Sotomayor, J., concurring)).
[76] *See* Carpenter v. United States, 585 U.S. 296, 309 (2018).
[77] *See id* at 309–10.
[78] *See* Carpenter v. United States, 585 U.S. 296, 310 (2018).
[79] *See id*. at 309–310; *see also Kyllo*, 533 U.S. at 34.
[80] *See Carpenter*, 585 U.S. at 305, 2217–18; *see also* Kyllo, 533 U.S. at 34.
[81] *See Carpenter*, 585 U.S. at 310.

Considering the facts in *Carpenter*, the Court found that accessing an individual's historical CSLI records was faster, cheaper, and easier for law enforcement than using traditional investigative tools like trailing or using contemporaneous surveillance cameras.[82] Without CSLI, law enforcement would have had to spend months manually compiling records that logged Carpenter's movements within the area of interest.[83] However, with the help of CSLI, the government gained access to a complete log of where Carpenter had been for months in the time it took to request and receive that data from his cell service provider.[84] The amount of time, energy, and resources that the agency would have had to use to achieve the same amount of information about Carpenter if not for access to his CSLI records demonstrates that the technology enables searches more likely to be unreasonable.[85] The Court found that this factor, like the CSLI's capacity to reveal the privacies of life, favors imposing a warrant requirement on CSLI.[86] Carpenter had a subjective expectation of privacy in his movements in public founded an understanding that traditional surveillance method would not reveal every single one of his movements.[87] Having determined that individuals do have a reasonable expectation in the whole of their movements, the Court found that law enforcement infringed upon Carpenter's Fourth Amendment privacy interest in part by using technology that is far more efficient than traditional methods.[88]

iii. Factor Three: Precision of Surveillance

The Court's third factor in its analysis of whether law enforcement conducted an unreasonable search of Carpenter's location information was the level of precision CSLI allowed the agency to achieve.[89] Questions about the precision of surveillance have come up in recent location surveillance cases at the Supreme Court because location information can reveal other sensitive information about an individual.[90] As a technology permits for a higher level of precision, the Court becomes more wary of allowing law enforcement to access location information.[91] Although the Court took a property-based approach to location surveillance in *Jones*, Justices Sotomayor and Alito raised concerns about the precision of GPS surveillance that resurface in the Court's rhetoric in *Carpenter*.[92] Cell phone and GPS technologies that track vehicle movements in particular have triggered concern in the judiciary.[93]

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[82] *See id*. at 309–10.
[83] *See* Carpenter v. United States, 585 U.S. 296, 309–10 (2018).
[84] *See id*. at 302–03.
[85] *See* Carpenter v. United States, 585 U.S. 296, 311–13 (2018).
[86] *See id.* at 312.
[87] *See id.* at 310–12.
[88] *See id.* at 320.
[89] *Id.* at 311–12.
[90] *See id.* Carpenter v. United States, 585 U.S. 296, 311 (2018); United States v. Jones, 565 U.S. 400, 416 (2012) (Sotomayor, J., concurring).
[91] *See Carpenter*, 585 U.S. at 312 (arguing that although CSLI records are somewhat less precise than the GPS surveillance, they are getting increasingly more precise).
[92] *See Jones*, 565 U.S. at 415, 428–29 (Sotomayor, J., concurring) (Alito, J., concurring); *id.*
[93] *See Jones*, 565 U.S. at 428–29 (Sotomayor, J., concurring) (Alito, J., concurring); *Carpenter*, 585 U.S. at 310–12. Historically, the Court's approach to GPS tracking, in regard to surveillance of vehicles in particular, has been a hybrid of common law trespass to property

In *Carpenter*, the Court found that when the government used CSLI records to track Carpenter's movements, it was able to achieve "near perfect surveillance."[94] This level of accuracy is possible because individuals typically carry their cell phones with them everywhere, even to the restroom.[95] All the while, cell phones continuously search for the best cell service by connecting to the nearest cell towers.[96] In addition, the cell service providers have created more and more cell sites to improve cell service.[97] As a result, cell service providers can locate a cell phone within fifty meters of its actual location.[98] Chief Justice Roberts noted that the rapidly increasing accuracy of CSLI records is approaching the same level of precision as the kind of GPS tracking that the Court addressed in *Jones*, which law enforcement typically must get a warrant to conduct.[99] The Court held that the precision of CSLI, like other factors, pointed to a need to impose a warrant requirement.[100] Carpenter's subjective expectation of privacy in the whole of his movements over the course of 129 days is one that society accepts as reasonable.[101] The Court found that while society as a whole generally accepts some level of observance in public, the idea of near perfect surveillance of one's every move twenty-four hours a day for more than four months far exceeds what most would find acceptable.[102]

iv. Factor Four: Retroactive Quality of Surveillance

The Court's final consideration in *Carpenter* was the retrospective quality of CSLI.[103] The Court flagged the risks of permitting law enforcement to use technology that allows them to surveil peoples' past actions without a warrant.[104] As with its concerns over the efficacy of advanced surveillance technology compared to traditional investigative techniques, the Court pointed to the fact that retrospective surveillance technology gives the government access to a category of information that historically, has been inaccessible.[105] Chief Justice Roberts explained how historically, the government has been limited to uncovering information it can piece together through investigation.[106] In comparison, the Court asserted, technology that has a retrospective quality facilitates surveillance even before any illegal offense occurs.[107]

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principles and reasonable expectation of privacy doctrine. *See* Kyllo v. United States, 533 U.S. 27 (2001); *Jones*, 565 U.S. at 409. This has created questions about when location surveillance is a Fourth Amendment search, especially given the Court's holding in Knotts that the use of a rudimentary beeper tracking device was not a search. *See Carpenter*, 585 U.S. at 311–13. However, the Court's reasoning in *Carpenter* eschews the trespass to property approach Justice Scalia employed in *Jones* and distinguishes the holding from *Knotts* by differentiating between the sophistication of the tracking technologies. *See id.* at 311–13, 320.

[94] *Carpenter*, 585 U.S. at 312.

[95] *Id.*

[96] *Id.* at 296.

[97] *Id.* at 301, 311.

[98] *Id.* at 313.

[99] Carpenter v. United States, 585 U.S. 296, 309–10 (2018).

[100] *See id.* at 310, 320.

[101] *See id.* at 313.

[102] Carpenter v. United States, 585 U.S. 296, 313 (2018).

[103] *See id.* at 310.

[104] *See id.*

[105] *Id.*

[106] *Id.*

[107] Carpenter v. United States, 585 U.S. 296, 310 (2018).

Law enforcement's ability to access historical CLSI records that can reveal any individual's movements alarmed the Court.[108] Chief Justice Roberts cautioned that the retrospective nature of CSLI records allowed law enforcement to access a complete log of Carpenter's past movements, something that would have been impossible without CSLI technology.[109] To collect the same type of information in the past, police had to suspect an individual, collect fragmented information about them, and piece evidence together.[110] With CSLI records, however, law enforcement can track any person's whereabouts as far back as their cell service provider has maintained records—information that predates illegal acts.[111] Allowing law enforcement to request CSLI records without obtaining a warrant subjects every individual with a cell phone to retroactive location searches.[112] As with CSLI's capacity to reveal the privacies of life, how efficient the technology is compared to traditional surveillance methods, and the level of precision CSLI can achieve, the retroactive quality of the CSLI data cut towards requiring a warrant requirement to the justices.[113] The Court found that the scale and implications of this retrospective information is such that society accepts the expectation of privacy from this sort of surveillance as reasonable.[114]

v. Holding in Carpenter

In *Carpenter*, the Supreme Court held that accessing an individual's historical CSLI records without a warrant violates that person's reasonable expectation of privacy in the whole of his movements.[115] At the outset of his opinion for the majority, Chief Justice Roberts reaffirmed the Court's goal to preserve the degree of privacy that existed at the adoption of the Fourth Amendment by "secur[ing] 'the privacies of life' against 'arbitrary power'" and preventing "too permeating police surveillance."[116] Ultimately, the Court concluded that limiting government access to CSLI records by imposing a warrant requirement is necessary to preserve individual privacy rights.[117] The Court came to this conclusion by conducting an analysis of CSLI's capacity to reveal the privacies of life, how efficient CSLI is compared to traditional investigative techniques, the level of precision in surveillance CSLI achieves, and CSLI's retrospective quality.[118] As a result, law enforcement must get a warrant supported by probable cause before accessing historical CSLI records.[119]

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[108] *See id.*
[109] *See id.*
[110] *See id.*
[111] Carpenter v. United States, 585 U.S. 296, 310 (2018).
[112] *See id.*
[113] *See id.* at 309–10, 320.
[114] *See id.* at 310.
[115] *See id.* at 320.
[116] *See* Carpenter v. United States, 585 U.S. 296, 305 (2018) (quoting United States v. Di Re, 332 U.S. 581, 595 (1948)).
[117] *See id.* at 320.
[118] *See* Carpenter v. United States, 585 U.S. 296, 309–11 (2018).
[119] *Id.* at 317

B. Government Surveillance and Criminalization of Pregnancy

Concerns about increased government surveillance of pregnant people have ballooned as a result of the Supreme Court's holding in *Dobbs*, which eliminated the fundamental constitutional right to an abortion.[120] In 2022, the Supreme Court announced its decision in *Dobbs* which overturned *Roe v. Wade*[121] and *Planned Parenthood v. Casey.*[122] In *Dobbs*, the Court held that the Due Process Clause of the Fourteenth Amendment does not confer the right to obtain an abortion.[123] Likewise, the Court in *Dobbs* rejected the reasoning underlying *Roe* and *Casey*, concluding that states do have a legitimate interest in protecting potential life at all points during pregnancy.[124] As a result of the Court's holding that there is no fundamental constitutional right to abortion, state laws that regulate abortion are only subject to rational basis review, the lowest form of judicial scrutiny in constitutional challenges.[125] Under rational basis review, a state only has to prove that it has a legitimate interest and that the challenged regulation can be justified by any rational basis.[126] This holding cleared the way for states to more heavily regulate abortions within their jurisdictions.[127]

Following *Dobbs*, several states immediately implemented regulations restricting, and in some cases banning, abortions with limited exceptions.[128] Currently, twenty-one states have enacted restrictions on abortions since the *Dobbs* decision.[129] Fourteen of these states have near total abortion bans in place, only some of which include exceptions for incest and rape.[130] In the year following the ruling in *Dobbs*, twenty-five million women of childbearing age in the United States lost access to abortion care as a consequence of state-level abortion regulations.[131] Although the abortion rate in the United States saw a slight uptick in the year following the *Dobbs* decision,[132] laws restricting abortions have disproportionately affected Black, Brown, Indigenous,

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[120] *See, e.g.*, Grace Howard, *The Pregnancy Police: Surveillance, Regulation, and Control*, 14 HARV. L. & POL'Y REV. 347 (2020); ALBERT FOX CAHN & ELENI MANIS, PREGNANCY PANOPTICON: ABORTION SURVEILLANCE AFTER ROE (2022); Sherfinski, *supra* note 21; Chowdhury, *supra* note 6; Maass, *supra* note 6; Sabin, *supra* note 21; Benson, *supra* note 20.

[121] Roe v. Wade, 410 U.S. 113 (1973).

[122] Planned Parenthood v. Casey, 505 U.S. 833 (1992); Dobbs v. Jackson Women's Health Organization, 597 U.S. 215 (2022).

[123] *Dobbs*, 597 U.S. at 292.

[124] *See id.*

[125] *Id*. at 300.

[126] *Id.*

[127] *See id*. at 301.

[128] *See Interactive Map: U.S. Abortion Policies and Access After Roe*, GUTTMACHER INST. (Mar. 25, 2024), https://states.guttmacher.org/policies/abortion-policies [https://perma.cc/X8QV-RWPW]; Julia Haines, *Where State Abortion Laws Stand Without Roe*, U.S. NEWS (Mar. 6, 2024) https://www.usnews.com/news/best-states/articles/a-guide-to-abortion-laws-by-state [https://perma.cc/36XJ-XSSQ].

[129] Haines, *supra* note 128.

[130] *Id.*

[131] Geoff Mulvihill, Kimberlee Kruesi, & Claire Savage, *A Year After Fall of Roe, 25 Million Women Live in States With Abortion Bans or Tighter Restrictions*, ASSOC. PRESS (June 22, 2023), https://apnews.com/article/abortion-dobbs-anniversary-state-laws-51c2a83899f133556e715342abfcface [https://perma.cc/U4JL-BPX8]; *see also* Cameron Scott, *Model Shows Where Women Lost Access to Abortion After Dobbs*, UNIV. OF CAL. SAN FRANCISCO (Nov. 1, 2022), https://www.ucsf.edu/news/2022/10/424121/model-shows-where-women-lost-access-abortion-after-dobbs [https://perma.cc/6Z48-X6BN].

[132] Claire C. Miller & Margot Sanger-Katz, *Despite State Bans, Legal Abortions Didn't Fall Nationwide in Year After Dobbs*, N.Y. TIMES: THEUPSHOT (Oct. 24, 2023), https://www.nytimes.com/2023/10/24/upshot/abortion-numbers-dobbs.html [https://perma.cc/ZV7B-UCL9].

and low-income people who can get pregnant.[133] This, in part, is because of the increased barriers to accessing reproductive health care, such as transportation and housing expenses, for those living in states where abortion bans are in place.[134] For many, having to travel out-of-state to get necessary medical care is very prohibitive and has resulted in health risks.[135]

Prior to *Dobbs*, pregnant people were already subject to surveillance of their pregnancy status and pregnancy-related criminal enforcement.[136] Although there was a constitutionally protected right to abortion until June of 2022, there has been a trend of increasing pregnancy criminalization in the past two decades.[137] Between 2006 and 2022, there were at least 1,300 instances where pregnant people faced criminal enforcement related to their pregnancy based on laws that accept the idea of fetal personhood.[138] In these cases, individuals were arrested and charged for a variety of activities, from involuntary miscarriage to substance use, predicated on the idea that the pregnant person had caused harm to a fetus, had endangered the fetus, or was responsible for the termination of their pregnancy.[139] In the wake of *Dobbs*, there are widespread concerns that pregnancy surveillance and criminalization will increase as the law grants more legitimacy to the idea of fetal personhood.[140]

Although it is not clear how states will enforce abortion restrictions, the criminalization of pregnancy prior to *Dobbs* could signal that enforcement will utilize surveillance technology. There have already been several cases where law enforcement has utilized women's private text messages, direct messages, and search engine queries to bring charges for the loss of a pregnancy.[141] For example, Mississippi prosecutors brought charges against Latice Fisher for the second-degree murder of her child after she suffered a pregnancy loss based on her internet search history.[142] Alongside calls for major tech companies to stop collecting and sharing personal data from users with law enforcement have been warnings that ALPRs will be used in similar ways to prosecute abortion charges.[143] Immigration and reproductive health rights advocates have warned that the network of ALPR cameras and databases that law enforcement has used to target immigrant and minority populations will be used to surveil pregnant people.[144]

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[133] Scott, *supra* note 131.
[134] *See id.*
[135] *See id.*
[136] *See* Zakrzewski et al., *supra* note 4; Sherfinski et al., *supra* note 21.
[137] *See* PURVAJA S. KAVATTUR ET AL., THE RISE OF PREGNANCY CRIMINALIZATION: A PREGNANCY JUSTICE REPORT 4 (Pregnancy Justice 2023).
[138] *See id*.
[139] *See id*.
[140] *See id*; ALBERT F. CAHN & ELENI MANIS, PREGNANCY PANOPTICON: ABORTION SURVEILLANCE AFTER ROE 1 (Surveillance Technology Oversight Project 2022).
[141] *See* Zakrzewski et al., *supra* note 4; Cahn et al., *supra* note 140.
[142] Barbara Ortutay, *Why Some Fear That Big Tech Data Could Become a Tool for Abortion Surveillance*, PBS NEWS HOUR (June 28, 2022), https://www.pbs.org/newshour/economy/why-some-fear-that-big-tech-data-could-become-a-tool-for-abortion-surveillance [https://perma.cc/Z2XJ-5C7M].
[143] *See e.g.*, Maass, *supra* note 6; Oron, *supra* note 6.
[144] Oron, *supra* note 6; Benson, *supra* note 20.

C. ALPR Technology and Pregnancy Surveillance

Automated license plate readers are cameras that capture the license plate number of each vehicle that passes it as well as the time, date, and location of the photography.[145] This information is uploaded to a database that stores that data, sometimes indefinitely.[146] ALPR camera systems are small and often come in three different forms: fixed, mobile, and quick-deploy.[147] Fixed ALPRs are easily affixed to overpasses, streetlights, buildings, and other stable locations.[148] Mobile ALPRs are placed atop law enforcement vehicles and record license plate information from the cars that police car passes.[149] Finally, quick-deploy ALPRs are even smaller, more portable scanners that can be placed "almost anywhere" to capture plate information.[150] Once an ALPR is in place, it indiscriminately captures the license plate information of every vehicle that passes by.[151] Many law enforcement agencies have developed ALPR databases where they store the records ALPRs create for each vehicle that passes by.[152] Law enforcement agencies also frequently contract with private vendors, like Vigilant Solutions, that maintain nationwide ALPR databases.[153] In 2020, the Brennan Center for Justice reported that "93 percent of police departments in cities with populations of 1 million or more use their own ALPR systems… [and] in cities with populations of 100,000 or more, 75 percent of police departments use ALPR systems."[154]

Generally, law enforcement agencies use ALPR technology for things like tracking stolen vehicles, criminal investigations, and monitoring traffic patterns.[155] The agencies that use ALPR technology claim that the cameras are useful for things tracking down stolen vehicles and finding abducted children.[156] However, law enforcement agencies nationwide have drawn criticism for their use of the ALPRs to disproportionately surveil minority groups and enforce minor offenses, such as nonpayment of court fees.[157] Specific instances of discriminatory ALPR use include New York City police officers recording the license plates information of vehicles parked outside of a mosque and police in Long Beach monitoring Black Lives Matter protestors.[158]

Incidents where law enforcement has abused its access to ALPR technology has triggered

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[145] ELEC. FRONTIER FOUND., *supra* note 6.
[146] *Id.*
[147] *License Plate Recognition*, MOTOROLA SOLUTIONS, https://www.motorolasolutions.com/en_us/video-security-access-control/license-plate-recognition-camera-systems.html (last visited Apr. 9, 2023).
[148] *See id.*
[149] *See id.*
[150] *See id.*
[151] ELEC. FRONTIER FOUND., *supra* note 145.
[152] *See id.*
[153] *See id*; MOTOROLA SOL., *supra* note 147 (Vigilant Solutions boasts access to over forty-four billion license plate scans).
[154] Díaz et al., *supra* note 14.
[155] *See* ELECT. FRONTIER FOUND., *supra* note 145.
[156] *See id*.
[157] *See id.*; Dave Mass & Jeremy Gillula, *What You Can Learn from Oakland's Raw ALPR Data*, ELEC. FRONTIER FOUND. (Jan. 21, 2015), https://www.eff.org/deeplinks/2015/01/what-we-learned-oakland-raw-alpr-data [https://perma.cc/VKU5-WVEJ].
[158] Adam Goldman & Matt Apuzzo, *With Cameras, Informants, NYPD Eyed Mosques*, ASSOC. PRESS (Feb. 23, 2012), https://www.ap.org/media-center/ap-in-the-news/2012/with-cameras-informants-nypd-eyed-mosques [https://perma.cc/PR8C-LNNU]; Stephen Downing, *LBPD Dragnet Snags the Innocent*, BEACHCOMBER (Aug. 7, 2020), https://beachcomber.news/content/lbpd-dragnet-snags-innocent [https://perma.cc/M9NN-HDGH].

fears that states that have banned abortions will use ALPRs to monitor pregnant people.[159] Privacy experts have warned that ALPRs could be positioned to facilitate location searches of vehicles headed towards reproductive healthcare facilities and to develop "hot lists" to monitor vehicles associated with a pregnant person.[160] The information-sharing between law enforcement agencies also contributes to experts' concerns. The practice of sharing ALPR records between agencies and across state lines means data collected in a state without an abortion ban could be easily shared with authorities in a neighboring state that has an abortion ban in place.[161] In addition to fears of government surveillance, there have already been instances of monitoring by private anti-abortion groups.[162]

State and federal law generally do not restrict ALPR use.[163] Under federal law, law enforcement officers are not bound by a warrant requirement before seeking information collected by ALPRs or accessing extensive private ALPR databases.[164] This means that law enforcement officers do not have to demonstrate probable cause before searching ALPR databases with the ability to map a vehicle's movement over time through the aggregation of place scans.[165] At the state level, there are only sixteen states with laws that regulating ALPR use.[166] Those few state policies that do regulate ALPR use generally limit use of the technology to law enforcement, impose retention limits on place scans, limit law enforcement's right to share the records, or limit the scans' public disclosure.[167]

D. How Lower Courts Have Applied the Carpenter Standard to Automated License Plate Readers

There have been a handful of cases where the defendants have filed motions to suppress evidence from ALPR databases on the theory that the aggregation of ALPR data constitutes a Fourth Amendment search under the *Carpenter* framework.[168] However, no court has granted a motion to suppress ALPR data under *Carpenter* thus far.[169] These cases follow a similar pattern: prosecutors charge the defendant with a crime using evidence the agency obtained without a warrant from ALPR databases.[170] During litigation, the defendant raises an objection to law enforcement's use of ALPR data and files a motion to suppress the evidence gleaned from ALPR

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[159] *See* Maass, *supra* note 6; CAHN ET AL., *supra* note 140.
[160] Maass, *supra* note 6.
[161] *Id.*
[162] Dave Mass, *How License Plate Covers Would Protect Vulnerable Communities*, ELEC. FRONTIER FOUND. (Jan. 18, 2018), https://www.eff.org/deeplinks/2018/01/how-license-plate-covers-would-protect-vulnerable-communities [https://perma.cc/NWG2-3HPA].
[163] *See* Díaz et al., *supra* note 14.
[164] *Id.*
[165] *Id.*
[166] NAT'L CONF. OF STATE LEGIS., *supra* note 15.
[167] *See id.*
[168] *See* USA v. Rubin, 556 F. Supp. 3d 1123 (N.D. Cal. 2021); United States v. Porter, No. 21-CR-00087, 2022 WL 124563 (N.D. Ill. Jan. 13, 2022); United States v. Brown, No. 19-CR-949, 2021 WL 4963602 (N.D. Ill. Oct. 26, 2021); United States v. Graham, No. 21-645-WJM, 2022 WL 4132488 (D.N.J. Sep. 12, 2022); United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021).
[169] *See Bowers*, 2021 WL 4775977 at *4; *Brown*, 2021 WL 4963602, at *4; *Porter*, 2022 WL 124563, at *3.
[170] *See Bowers*, 2021 WL 4775977 at *1; *Brown*, 2021 WL 4963602, at *2; *Porter*, 2022 WL 124563, at *1.

cameras and databases.[171] Defendants in these cases argue that the law enforcement agency infringed upon their reasonable expectation of privacy in the whole of their movements as described in *Carpenter* by accessing ALPR data without getting a warrant.[172] Ultimately, the courts deny defendants' motions to suppress, holding that *Carpenter* does not extend as far as defendants argue it does.[173]

The courts that have ruled on motions to suppress ALPR evidence have held that using ALPR records without a warrant is not a search under the Fourth Amendment.[174] Therefore, these courts have found that law enforcement agencies do not violate individuals' right to be free from unreasonable searches by using ALPR data to evidence wrongdoing.[175] In *United States v. Brown*,[176] law enforcement officers used ALPR data to identify the suspect in a series of robberies.[177] Defendant Brown moved to suppress the ALPR images at trial, asserting that, under *Carpenter*, he had a reasonable expectation of privacy in the whole of his movements that the officers violated when they accessed the ALPR records of his location at specific points in time.[178] The district court dismissed Brown's motion to suppress, holding that the ALPR records did not intrude on Browns' reasonable expectation of privacy.[179] The court justified this decision by noting that it is unreasonable to claim an expectation of privacy in objects that the law requires to be located in plain view.[180] The court also held that the ALPR database did not reveal the whole of Brown's movements and did nothing to expose the intimate details of his life, thus not violating his Fourth Amendment right to be free from unreasonable searches because he had no reasonable expectation of privacy.[181]

Other motions to suppress ALPR evidence law enforcement officers accessed without a warrant have been denied for similar reasons. In *United States v. Porter*,[182] police investigating a series of armed bank robberies in Chicago accessed images taken by ALPR cameras that implicated Porter as the perpetrator.[183] At trial, defendant Porter filed a motion to suppress the ALPR data, making a similar argument as the defendant in *Brown*, asserting that law

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[171] *See Bowers*, 2021 WL 4775977 at *1–3; *Brown*, 2021 WL 4963602, at *1–2; *Porter*, 2022 WL 124563, at *2.
[172] *See Bowers*, 2021 WL 4775977 at *1–3; *Brown*, 2021 WL 4963602, at *1–2; *Porter*, 2022 WL 124563, at *1–3.
[173] *See Bowers*, 2021 WL 4775977 at *1–3; *Brown*, 2021 WL 4963602, at *3–4; *Porter*, 2022 WL 124563, at *2–3.
[174] *See Bowers*, 2021 WL 4775977 at *4; *Brown*, 2021 WL 4963602, at *4; *Porter*, 2022 WL 124563, at *3.
[175] *See Bowers*, 2021 WL 4775977 at *4; *Brown*, 2021 WL 4963602, at *4; *Porter*, 2022 WL 124563, at *3*; see, e.g.*, USA v. Rubin, 556 F. Supp.3d 1123 (N.D. Cal. 2021)*;* United States v. Porter, No. 21-CR-00087, 2022 WL 124563 (N.D. Ill. Jan. 13, 2022); United States v. Brown, No. 19-CR-949, 2021 WL 4963602 (N.D. Ill. Oct. 26, 2021); United States v. Graham, No. 21-645-WJM, 2022 WL 4132488 (D.N.J. Sep. 12, 2022); United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021).
[176] United States v. Brown, No. 19-CR-949, 2021 WL 4963602, at *1 (N.D. Ill. Oct. 26, 2021).
[177] The ALPR databases the officers accessed contained about two dozen snapshots of the defendant's car over the course of ten weeks. The officers used this information to confirm the defendant's proximity to the crime scenes at critical times. *Brown*, 2021 WL 4963602, at *1.
[178] *Id*. at *3–4.
[179] *Id*.
[180] *Id*. at *3.
[181] *Id*.
[182] *See* United States v. Porter, No. 21-CR-00087, 2022 WL 124563 (N.D. Ill. Jan. 13, 2022).
[183] The ALPR data helped the officers to determine that the car was registered in Porter's name. From there, the officers queried National Vehicle Location Services, an ALPR database, for images of Porter's vehicle over the course of eight weeks. *Porter*, 2022 WL 124563, at *1.

enforcement's warrantless use of ALPR images to identify him was an unreasonable search under the Fourth Amendment.[184] The *Porter* court denied the motion, reasoning that individuals have no legitimate privacy interest in publicly displayed information, such as the data displayed on license plates.[185] Ultimately, the court held that the collection of ALPR images law enforcement accessed was limited and did not reveal any of the intimate details of Porter's life, such as his political, professional, or religious associations.[186] Likewise, in *United States v. Bowers*,[187] the court denied defendant Bowers' motion to suppress the 106 ALPR records law enforcement accessed and submitted as evidence against him.[188] The court in *Bowers* denied the motion to suppress on similar grounds as the courts in *Brown* and *Porter*.[189] The court cited to *United States v. Knotts*,[190] where the Supreme Court held that there is not a reasonable expectation of privacy in a vehicle's movements from place to place on public streets.[191] In addition, the *Bowers* court emphasized that there is no reasonable expectation of privacy in the information on a license plate because the government requires everyone to display that information.[192]

In spite of the trend among district courts to hold that accessing ALPR records without a warrant does not constitute an unreasonable search under the Fourth Amendment, the Supreme Court of Massachusetts indicated that there are instances where warrantless use of ALPRs could be a search. In *Commonwealth v. McCarthy*,[193] police were investigating defendant McCarthy for drug distribution and accessed historical ALPR records from ALPRs positioned on two bridges in the area.[194] Ultimately, the court held that because there were so few ALPR images recording the defendant's movements, there was no Fourth Amendment search.[195] However, the Massachusetts Supreme Court acknowledged that "[w]ith enough cameras in enough locations, the historic location data from an ALPR system. . . would invade a reasonable expectation of privacy and would constitute a search for constitutional purposes."[196] Further, the court noted that although any level of ALPR surveillance might not reach the precision or detail of the CSLI surveillance in *Carpenter*, law enforcement could make the same kinds of inferences about individuals' lives from ALPR records.[197] Finally, the court drew another comparison between CSLI and ALPR technologies, pointing to the fact that the subject of both forms of surveillance, cell phone and car use, are necessary parts of modern life.[198]

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[184] *Porter*, 2022 WL 124563, at *2; *cf. Brown*, 2021 WL 4963602, at *2.
[185] *Porter*, 2022 WL 124563, at *3.
[186] *Id.*
[187] No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021).
[188] *Bowers*, 2021 WL 4775977 at *5.
[189] *Bowers*, 2021 WL 4775977 at *4.
[190] 460 U.S. 276.
[191] *Id*. at 281–82.
[192] *Bowers*, 2021 WL 4775977 at *3.
[193] Commonwealth v. McCarthy, 484 Mass. 493, 506–07 (Mass. 2020).
[194] *Id*. at 494.
[195] *Id*. at 508–09.
[196] *Id*. at 506–07.
[197] *Id.*
[198] Commonwealth v. McCarthy, 484 Mass. 493, 507 (Mass. 2020).

II. How Lower Courts Have Misapplied Carpenter to ALPR Technology

The holdings in *Bowers*, *Brown,* and *Porter* demonstrate that lower courts have left out key considerations the Supreme Court weighed in *Carpenter*.[199] The three lower court decisions contain the main justifications that lower courts have used in denying motions to suppress ALPR evidence on *Carpenter* grounds.[200] These justifications are that there is no reasonable expectation of privacy in public, that there is no reasonable expectation of privacy in license plate information, and that ALPR evidence has not exposed the intimate details of defendants' lives. However, comparing the lower courts' reasoning in these cases to *Carpenter* reveals that the lower courts have misidentified the expectations of privacy law enforcement violated in all three cases.[201]

A. Defendants Have No Reasonable Expectation of Privacy in Public Movements

Lower courts applying *Carpenter* to ALPR technology have reached the conclusion that accessing ALPR records without a warrant is not an unreasonable search in part because individuals do not have a reasonable expectation of privacy on public streets.[202] In *Bowers*, the district court recounted the widely accepted premise from *Knotts* that people have no reasonable expectation of privacy in their movements from one place to another public streets.[203] Similarly, the court in *Brown* held that ALPR records were not the subject of an unreasonable search because there is generally no reasonable expectation of privacy in vehicles on public roads.[204] However, this reasoning does not align with the Supreme Court's approach to location surveillance in *Carpenter*.[205]

The Supreme Court's approach to location surveillance has evolved past the point where the courts in *Bowers* and *Brown* stopped. The *Brown* and *Bowers* courts rely on *Knotts* to hold that individuals do not have a reasonable expectation of privacy in their movements on public streets.[206] However, in *Carpenter*, the Court looked beyond individuals' expectations of privacy in singular public movements to the implications of revealing the whole of their movements.[207] In that case, law enforcement's unrestricted access to CSLI triggered a Fourth Amendment warrant requirement because CSLI documents cell phone users' movements over extended periods of time, not just for short stints.[208] Even though CSLI technology revealed information that would be comparable to the limited movement that police monitored in *Knotts*, the Court treated the privacy interest in information that location surveillance gathered over time differently.[209] In the same way, ALPRs

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[199] *See* United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021); United States v. Brown, No. 19-CR-949, 2021 WL 4963602 (N.D. Ill. Oct. 26, 2021); United States v. Porter, No. 21-CR-00087, 2022 WL 124563 (N.D. Ill. Jan. 13, 2022).
[200] *See Bowers*, 2021 WL 4775977 at *3–4; *Brown*, 2021 WL 4963602, at *3; *Porter*, 2022 WL 124563, at *3.
[201] *Id.*
[202] *Porter*, 2022 WL 124563 at 2; *Brown*, 2021 WL 4963602, at *3.
[203] *Porter*, 2022 WL 124563 at 2.
[204] *Brown*, 2021 WL 4963602, at *3.
[205] *See* Carpenter v. United States, 585 U.S. 296, 309 (2018).
[206] *Porter*, 2022 WL 124563 at 2; *Brown*, 2021 WL 4963602, at *3.
[207] *See Carpenter*, 585 U.S. at 296–298.
[208] *See id*. at 301, 317.
[209] *See id*. at 300–01.

may reveal a person's movements over a stretch of time, eventually uncovering the most sensitive information about them.[210] Unlike in *Knotts*, the ALPR information that law enforcement accessed in *Brown* and *Bowers* was not necessarily limited to a single trip.[211] For example, in *Bowers*, law enforcement's query for the defendant's license plate number in an ALPR database returned 106 records created over the course of more than three months.[212] Stitched together, these ALPR records could reveal a wealth of information about the defendant and allow law enforcement to draw further inferences from that information.[213] What the courts' reasoning in *Brown* and *Bowers* failed to consider is that when taken together, ALPR records do more than reveal that a person was traveling in public—they reveal where they were traveling and possibly even why.[214]

Lower courts are right to be wary of extending the *Carpenter* holding farther than it is meant to go; the Supreme Court itself indicated that *Carpenter* was a "narrow" decision.[215] However, ALPRs are the kind of surveillance technology that can infringe on the reasonable expectation of privacy in the whole of one's movement. ALPR databases compile location information about every vehicle that passes by a scanner.[216] Like the Massachusetts Supreme Court warned, one day ALPR databases will have enough data to compile an accurate record of where any vehicle has been, revealing that vehicle's movements and threatening individuals' expectations of privacy in their movements.[217] In jurisdictions where there are laws restricting abortion access, surveillance technology that can reveal information about an individual's location, like ALPRs, might be valuable in enforcing those laws.[218] The indiscriminate and retrospective nature of ALPR records makes it possible to search a database for license plates that frequent places of interest, like reproductive health clinics, ultrasound technicians, and baby supply stores.[219] These qualities are comparable to the aspects of CSLI that necessitated a warrant requirement in *Carpenter*.[220] As with CSLI, it is the aggregation of location data ALPRs collect that threatens the reasonable expectation of privacy in an individual's movements.

B. Defendants Have No Reasonable Expectation of Privacy in License Plate Information

Lower courts have focused on the idea that individuals do not have a reasonable expectation of privacy in their license plate information, but individuals do have a reasonable expectation in the whole of their movements.[221] The district courts in *Bowers*, *Brown*, and *Porter* all drew on the idea that individuals do not have a reasonable expectation of privacy in information

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[210] ELEC. FRONTIER FOUND., *supra* note 145.
[211] *Compare* United States v. Knotts, 460 U.S. 276 (1983) *with* United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977, at *1 (W.D. Pa. Oct. 11, 2021); United States v. Brown, No. 19-CR-949, 2021 WL 4963602, at *2 (N.D. Ill. Oct. 26, 2021).
[212] *Bowers*, 2021 WL 4775977 at *1.
[213] ELEC. FRONTIER FOUND., *supra* note 145.
[214] *See id.*; *see* Commonwealth v. McCarthy, 484 Mass. 493, 506–07 (Mass. 2020).
[215] *See* Carpenter v. United States, 585 U.S. 296, 316 (2018).
[216] ELEC. FRONTIER FOUND., *supra* note 145.
[217] *See McCarthy*, 484 Mass. at 506–07.
[218] *See* Maass, *supra* note 6.
[219] *See id.*
[220] *See Carpenter*, 585 U.S. at 317.
[221] *See id.* at 309–10.

displayed on a car's exterior because it is accessible in the public eye.[222] For example, in its ruling on the defendant's motion to suppress, the *Brown* court reasoned that it is unreasonable to have an expectation of privacy in information that the government legally requires you to publicly display.[223] Although it is generally accepted that there is no reasonable expectation of privacy in the information on a license plate, these lower courts have ignored the other information that ALPRs collect from individuals.

ALPRs indiscriminately record the license plate information of the vehicles that drive past it and makes a record of the device's coordinates, the time the vehicle was at that location, the direction the vehicle is traveling in, and sometimes a photo of the driver.[224] In part, it is this indiscriminate and automatic collection of data that poses such a threat to the reasonable expectation of privacy in the whole of a person's movements.[225] Like the CSLI information law enforcement accessed in *Carpenter*, ALPRs create records of individuals' locations without any driver action.[226] The act of driving on a public street, a necessity for many in the modern world, results in ALPRs logging and storing that vehicle's location information for later search.[227] The expectation that the government cannot and will not surveil their every movement, as was addressed in *Carpenter*, is the expectation of privacy defendants are asserting when filing these motions to suppress ALPR evidence.[228]

ALPR records may also allow law enforcement officers to make the same kinds of inferences that they could with CSLI records.[229] The Massachusetts Supreme Court acknowledged this in its discussion of the Supreme Court's approach in *Carpenter*, which it referred to as the mosaic theory.[230] In *McCarthy*, that court warned that the prolonged and automatic surveillance ALPRs facilitate allows for the same inferences about a person's associations which caused such alarm in *Carpenter*.[231] Even though ALPR technology does not achieve the same precision as CSLI was able to in *Carpenter*, strategic and widespread placement of ALPRs permits the reconstruction of any vehicle's movements, particularly in more densely populated areas.[232] As with CSLI records, the information that ALPR records can reveal to the government is a kind

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[222] *See* United States v. Bowers, 2021 WL 4775977, at *3 (W.D. Pa. Oct. 11, 2021); *see also* United States v. Brown, 2021 WL 4963602, at *3–4 (N.D. Ill. Oct. 26, 2021); *see also* United States v. Porter, 2022 WL 124563, at *3 (N.D. Ill. Jan. 13, 2022).

[223] *Brown*, 2021 WL 4963602, at *3 (*citing* New York v. Class, 106 S. Ct. 960, 966 (1986)).

[224] ELEC. FRONTIER FOUND., *supra* note 145.

[225] It is important to note that the fact that CSLI records were automatically generated by cell phones contributed to the Supreme Court's holding that the third-party doctrine did not apply in *Carpenter*. Although this part of the opinion was equally important to the Court's analysis of the defendant's reasonable expectation of privacy and will be an important part of any case applying *Carpenter* to ALPR technology, it is outside of the scope of this Note.

[226] *See* ELEC. FRONTIER FOUND., *supra* note 145.

[227] *See id*; Commonwealth v. McCarthy, 484 Mass. 493, 506 (2020).

[228] *See* Carpenter v. United States, 585 U.S. 296, 296, 309 (2018); United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021); United States v. Brown, No. 19-CR-949, 2021 WL 4963602 (N.D. Ill. Oct. 26, 2021); United States v. Porter, No. 21-CR-00087, 2022 WL 124563 (N.D. Ill. Jan. 13, 2022).

[229] *See McCarthy*, 484 Mass. at 506.

[230] *See id*. at 503–04.

[231] *See id*. at 506.

[232] *See* ELEC. FRONTIER FOUND., *supra* note 145.

previously inaccessible to law enforcement.[233] These historical location records are what have the capacity to expose the intimate details of a person's life, like what doctor they visit or whether they were picking up a prescription.[234]

C. The Privacies of Defendants' Lives Were Not Exposed

Lower courts have consistently ruled that accessing ALPR records is not an unconstitutional search because those records did not reveal any intimate details from the defendants' lives, but this approach misinterprets the reasoning in *Carpenter*.[235] For example, in *Brown*, the court found that ALPR records that the defendant moved to suppress did not expose information like where he traveled, who he visited, where he shopped, or other similar information.[236] The court held that because the records did not reveal the privacies of his life, the ALPR search did not infringe on his reasonable expectation of privacy.[237] Likewise, in *Porter*, the court held that because the ALPR records in dispute did not reveal any private details about the defendant's life, law enforcement had not conducted an unconstitutional search by accessing the records.[238] However, in *Carpenter*, there is no indication that the FBI uncovered any private details about Timothy Carpenter's life, like his religious practices or health history.[239] Rather, the Court in *Carpenter* was wary that unrestricted government access to CSLI records posed a significant risk that intimate details of individuals' lives could be unnecessarily uncovered.[240] In cases where law enforcement use ALPR technology, there is no requirement that those images actually evidence a persons' private associations.[241] Rather, lower courts must give weight to the risk of revealing intimate information through the use of ALPRs, rather than focusing on whether the records actually exposed intimate information.

The Massachusetts Supreme Court's discussion of how *Carpenter* would theoretically apply to ALPR records makes this distinction between whether surveillance technology actually reveals private information and whether it has the potential to reveal private information.[242] In *McCarthy*, the court makes an important distinction between the records the government might submit to the court as evidence and the data that the government actually has access to.[243] Compared to *Brown* and *Porter*, the *McCarthy* approach is better aligned with the Supreme Court's reasoning in *Carpenter*. This is because in *Carpenter*, the Supreme Court weighed the possibility that warrantless government access to 127 days' worth of CSLI records could reveal private details about the defendant, not whether the records that the government submitted as evidence did

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[233] *See id.*
[234] *See id.*
[235] *See* United States v. Porter, No. 21-CR-00087, 2022 WL 124563, at *3 (N.D. Ill. Jan. 13, 2022); United States v. Brown, No. 19-CR-949, 2021 WL 4963602, at *3 (N.D. Ill. Oct. 26, 2021); *See* Carpenter v. United States, 138 S. Ct 2206, 2218 (2018).
[236] *Brown*, 2021 WL 4963602, at *3.
[237] *Id.*
[238] *Porter*, 2022 WL 124563, at *3.
[239] *See Carpenter*, 585 U.S. at 310.
[240] *See id.*
[241] *See Carpenter*, 585 U.S. at 310.
[242] *See* Commonwealth v. McCarthy, 484 Mass. 493, 506 (2020).
[243] *See id*. at 506.

actually reveal any private information.[244] The courts in *Brown* and *Porter* might have made the correct ruling on the defendants' motions to suppress ALPR evidence, but not because the records did not reveal private details about the defendants' lives. Rather, the sparsity and placement of ALPRs may have been such that they could not reveal any private information about anyone.[245] However, the fact that ALPRs did not reveal private information to the government in a few records is not sufficient to hold that there is no chance the technology could reveal the intimacies of a person's life.

III. RECOMMENDATIONS AND APPLICATION

Lower courts have begun to develop case law that condones law enforcement's warrantless use of ALPR technology.[246] This poses a significant threat to the privacy interests of pregnant people post-*Dobbs* because states now have an interest in preserving the life of fetuses.[247] As a result, it is likely that various surveillance technologies, like ALPRs, could be used to surveil pregnant people for the sake of enforcing new restrictions on abortion care.[248] The Supreme Court's holding in Carpenter has the potential to extend beyond CSLI to include ALPRs, because ALPRs can also reveal individuals' movements. However, the lower courts that have ruled on motions to suppress ALPR evidence have misconstrued the reasonable expectations of privacy that individuals have in public.[249] To properly apply the holding in *Carpenter* to ALPR technology, lower courts must conduct a thorough analysis of the technology's capacity to reveal the privacies of life, how efficient the technology is compared to traditional investigative methods, how precise the surveillance is, and whether the nature of the technology allows for retrospective surveillance.

Defendants and district courts can address the inconsistency between *Carpenter* and district court cases where motions to suppress ALPR records fail. First, defendants living in jurisdictions with no ALPR warrant requirement should file motions to suppress when any government agency offers ALPR records as evidence. Defendants should frame their motions to suppress in *Carpenter's* terms. This should be done using a four factor analysis grounded in *Carpenter* that argues ALPRs have the capacity to expose the privacies of life, are more efficient than traditional surveillance techniques, are precise enough to map an individual's movements, and allow law enforcement to retroactively surveil people.[250] In addition, defendants need to center their motions to suppress on the theory that there is a reasonable expectation of privacy in the whole of their movements, rather than in license plate information or isolated movements in public. In doing this, defendants can encourage courts to develop a body of case law that upholds the assertion that using

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[244] *See Carpenter*, 585 U.S. at 309.
[245] *See* United States v. Brown, No. 19-CR-949, 2021 WL 4963602, at *1 (N.D. Ill. Oct. 26, 2021); United States v. Porter, No. 21-CR-00087, 2022 WL 124563, at *2 (N.D. Ill. Jan. 13, 2022).
[246] *See, e.g.*, United States v. Bowers, No. 2:18-CR-00292-DWA, 2021 WL 4775977 (W.D. Pa. Oct. 11, 2021); *Brown*, 2021 WL 4963602, at *3; *Porter*, 2022 WL 124563, at *3.
[247] *See* Dobbs v. Jackson Women's Health Organization, 597 U.S. 215, 301 (2022); Maass, *supra* note 6; Chowdhury, *supra* note 6; Benson, *supra* note 20; Sherfinski et al., *supra* note 21.
[248] *See* Maass, *supra* note 6; Benson, *supra* note 20.
[249] *See supra* How Lower Courts Have Misapplied Carpenter to ALPR Technology.
[250] *See supra* Part I.I.I.A.2.

this technology without probable cause is unconstitutional because it allows the government to intrude upon individuals' reasonable expectation of privacy in the whole of their movements. This solution works in the absence of federal or state legislation that would restrict law enforcement's use of ALPRs or impose a warrant requirement. If consistently blocked from entering ALPR evidence against defendants at trial, law enforcement agencies could be dissuaded from accessing ALPR records without getting a warrant first. The Jane Doe case, where law enforcement bring charges pregnant Alabama resident, can demonstrate how a defendant can make the argument that police officers violated her reasonable expectation of privacy in the whole of her movements by accessing her historical ALPR records.[251]

A. ALPR's Capacity to Reveal the Privacies of Life

In her motion to dismiss the ALPR records the government submitted to support its abortion charge against Jane Doe, she begins by arguing that ALPR technology has the capacity to reveal the privacies of life. Like in *Carpenter*, the ALPRs in Doe's town log her movements and allow law enforcement to reconstruct her movements.[252] Moreover, this reconstruction of movements goes far beyond a single trip from point A to point B. The local police force's ALPR network is wide enough to capture plates in most parts of the town.[253] This wealth of information about individuals' movements allows law enforcement to monitor where residents are spending their time. In addition, the ALPR records make it possible for officer to draw inferences about the most intimate details of town residents' lives.[254] In addition, unlike in *Brown*, *Bowers*, and *Porter*, the officers investigating Doe did actually uncover private information about Doe's life, including her visits to her reproductive healthcare provider.[255] This information is private in and of itself, but also lends itself to making further inferences about things like her political persuasion or medical conditions.

B. Efficiency Compared to Traditional Investigative Tools

In her motion to suppress ALPR evidence, Jane Doe also asserts that because ALPR technology is far more efficient than the traditional tools that the police department would have had to use to get the same information in the absence of ALPRs. Just like the CSLI technology in *Carpenter*, ALPRs are faster, cheaper, easier to use, and more efficient than their alternative, analog surveillance. If not for the network of ALPRs that the local police department has installed across Doe's town, officer would have had to go to painstaking efforts to discover Doe's movements and trips to the reproductive healthcare clinic. The police department would have had to deploy officers to trail Doe, search for eyewitnesses, question the clinic staff, scout out the several roads that Doe uses regularly to reconstruct Doe's movements. Instead, when the nurse who cared for Doe during her miscarriage alerted the police department about the incident, one

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[251] *See supra* Introduction.
[252] *See* ELEC. FRONTIER FOUND., *supra* note 145.
[253] *See supra* Introduction.
[254] *See supra* Introduction; ELEC. FRONTIER FOUND., *supra* note 145.
[255] *See supra* Part II.III.C.

officer determined Doe's license plate number and queried the department's ALPR database for all records of the vehicle.[256] As the Supreme Court indicated in *Carpenter*, technology that makes surveillance significantly more efficient can interfere with individuals' reasonable expectations of privacy because society accepts the expectation that the government cannot and will not conduct twenty-four hour surveillance of a person's movements or the streets as reasonable.[257] This expectation of privacy from government surveillance withstands advancements in technology only because Fourth Amendment jurisprudence demands that the government preserve the degree of privacy people were entitled to when the Fourth Amendment was ratified.[258]

C. Precision of Surveillance

Jane Doe's third argument in her motion to suppress the ALPR records officers obtained without a warrant is that the level of precision in location surveillance law enforcement achieved using ALPRs demonstrates that the government infringed upon her reasonable expectation of privacy. Just as in *Carpenter*, the officers that queried the ALPR database for Doe's license plate number did not get a warrant supported by probable cause before accessing her records.[259] In *Carpenter*, the Supreme Court's concern about how precise historic CSLI records were came from the fact that cell phone users carry their phones almost everywhere, creating a system of near-perfect location surveillance.[260] Although the argument that ALPRs can achieve a similar sort of precision floundered in *Brown*, *Bowers*, and *Porter*, Doe's circumstances were different. In those cases, ALPR use was not so pervasive that it allowed law enforcement to reconstruct a precise map of the defendants' movements over time.[261] However, in Doe's case, the local police department has developed a robust ALPR network that monitors the town's streets with an array of fixed, mobile, and quick-deploy ALPRs. With each additional ALPR device, location surveillance in the area has become more precise, just like how as cell service providers add more cell sites, CSLI records become more precise. In *Carpenter*, the Court compared this increasing precision to what's possible with GPS monitoring, even if it had not reached the same caliber yet.[262] This is because Fourth Amendment doctrine provides some margin of error that accounts for the rapid advancements in technology.[263] Likewise, as in *McCarthy*, had there been a more expansive network of ALPRs monitoring the defendant in that case, there would have been a constitutional question because the technology would facilitate precise location surveillance.[264]

D. Retrospective Quality of Surveillance

The retrospective quality of surveillance is the final factor Doe employs in her motion to

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[256] *See supra* Introduction.
[257] *See* Carpenter v. United States, 585 U.S. 296 (2018).
[258] *See id.*
[259] *See supra* Introduction.
[260] *See Carpenter*, 585 U.S. at 311–12.
[261] *See supra* How Lower Courts Have Misapplied Carpenter to ALPR Technology.
[262] *See Carpenter*, 585 U.S. at 313.
[263] *See id*.
[264] *See* Commonwealth v. McCarthy, 484 Mass. 493, 506 (Mass. 2020).

dismiss the government's ALPR records of her movements under the Supreme Court's approach in *Carpenter*.[265] Like the CSLI technology at issue in *Carpenter*, the ALPR surveillance is almost entirely retrospective.[266] The police in Doe's town had no reason to suspect her of illegal activity when any of the ALPR records that the government is using in its abortion case against Doe were created. Despite this, the police department has gathered extensive records of Doe's, and every other driver's, movements in the area. As with historic CSLI records, ALPR records make it possible for the police department in Doe's town to surveil her past movements and avoid reconstructing her actions through questioning, investigation, or forensic evidence.[267] Chief Justice Roberts flagged the dangers of technology that facilitates retrospective surveillance in *Carpenter* because it opens up a category of information about people that the government has never previously had access to.[268] This new access does not comport with the historical understanding of the Fourth Amendment's right to be free from unreasonable searches because there is a broad societal expectation that there is privacy from mass surveillance to be used against individuals in the off chance they come under investigation.[269] Applied to Jane Doe's case, the four factors the Supreme Court weighed in *Carpenter*—exposure of the privacies of life, efficiency, precision, and retrospectivity—cut in favor of suppressing the ALPR records Doe's local police department searched without a warrant.

CONCLUSION

ALPR technology has the capacity to reveal the most intimate details of individuals' lives—those privacies of life that the Fourth Amendment is meant to protect from undue government intrusion. Under the precedent set by *United States v. Carpenter*, extensive and warrantless uses of ALPR technology are likely to violate individuals' Fourth Amendment privacy interests. Although an analysis of ALPR technology through a *Carpenter* lens demonstrates the risk of widespread privacy violations, there is a heightened risk for pregnant people. This risk follows from the rapid enactment of abortion restrictions and penalties at the state level following *Dobbs v. Jackson Women's Health Organization*. However, pregnant people, whether or not they desire to terminate their pregnancy, have a reasonable expectation of privacy in the whole of their movements under *Carpenter*. Judicial oversight and regulation of law enforcement's ALPR use is necessary to preserve pregnant individuals' Fourth Amendment right to be from unreasonable searches.

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[265] *See* Carpenter v. United States, 585 U.S. 296, 310–11 (2018).
[266] *See id.*
[267] *See supra* Introduction.
[268] *See* Carpenter v. United States, 585 U.S. 296, 310–11 (2018).
[269] *See id.*