Bellarmine Law Society Review

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BELLARMINE LAW SOCIETY REVIEW

VOLUME XIV, ISSUE NO. I

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Bellarmine Law Society Review

Volume XIV | Issue I

Editor's Note: Volume XIV No. I of the *Bellarmine Law Society Review*

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EDITOR’S NOTE: VOLUME XIV NO. I OF THE *BELLARMINE LAW SOCIETY REVIEW*

ISABELLA CALISE

It is with sincere gratitude and excitement that I welcome you to the inaugural issue of the Bellarmine Law Society Review's fourteenth edition. We are thrilled to present to you an array of insightful and thought-provoking pieces that delve into pressing issues at the intersection of law, society, and technology. In this edition, authors Caroline Corcoran, Francis Hodgens, and Joseph Murphy offer compelling examinations of contemporary legal challenges, each shedding light on different facets of our evolving legal landscape.

First, rising senior Caroline Corcoran succinctly delves into the nuanced interpretation of threats under federal law, focusing on the landmark case of *Elonis v. United States*. Through meticulous analysis, Corcoran navigates the complexities of First Amendment rights, intent, and the objective assessment of threatening communications, ultimately highlighting the delicate balance between free speech protections and addressing potential risks. Next, class of 2024 graduate Francis Hodgens confronts the housing affordability crisis gripping Greater Boston, dissecting decades of poor land use planning and its profound impact on housing production and affordability. Hodgens's analysis of the MBTA Communities Act offers a critical evaluation of addressing the challenges associated with housing affordability, providing policymakers with essential recommendations for ensuring its success. Finally, rising junior Joseph Murphy tackles the intricate matter of liability in the era of self-driving cars, examining the shifting dynamics of responsibility amidst the increased implementation of autonomous vehicles. Murphy's work challenges misconceptions surrounding automation levels in these vehicles and underscores the imperative for tort liability law to adapt to the evolving automobile landscape.

As we embark on this intellectual journey, Managing Editor Tommy Dee and I extend our sincerest congratulations and gratitude to the seniors of the class of 2024, including our esteemed authors over the years, our dedicated associate editor Louis Barber, and, of course, many of our valued readers. Your contributions and commitment have made this edition possible, and we are honored to have these impressive investigations of the law open up the first issue of the 2024 year. Now, I invite you to delve into the richness of these scholarly contributions and engage in the critical conversations they inspire.

Bellarmine Law Society Review

Volume XIV | Issue I Article I

The Current Standards of Threats Under Federal Law

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THE CURRENT STANDARD OF THREATS UNDER FEDERAL LAW

CAROLINE CORCORAN [1]

Abstract: This paper examines the evolving standard of threats and, specifically, the interpretation of threats under federal law, focusing on the pivotal case of Elonis v. United States. It addresses the debate over whether proof of intent to cause actual harm is necessary for conviction under 18 U.S.C. § 875(c), analyzing arguments regarding First Amendment rights, subjective intent, and the objective interpretation of threatening communications. In conclusion, the paper highlights the delicate balance between preserving free speech rights and addressing the risks associated with threats. It stresses the importance of considering societal context and the impact of communication technologies on legal interpretations, revealing the complex interplay between constitutional principles and modern-day challenges.

I. ISSUE:

Whether the federal anti-threat statute 18 U.S.C. § 875(c) requires proof the defendant intended actual harm.

II. BACKGROUND:

The leading federal case defining the standard used under federal law is *Elonis v. United States of America* 2014 WL 4895283 (2014).

After his wife left him, petitioner Anthony Douglas Elonis used the social networking website Facebook to post about numerous individuals, such as his wife, co-workers, a kindergarten class, as well as state and federal law enforcement, utilizing offensive and threatening language and imagery. These posts often contained disclaimers that his lyrics were "fictitious" and not intended to depict real persons. Furthermore, the statements that Elonis was

[1] Caroline Corcoran is a third-year student at Boston College studying Pre-Law majoring in Communication and minoring. She is interested in criminal law and the intersection of psychology. Caroline would like to thank her parents for her interest in law and her first-year Business Law Professor David P. Twomey.

exercising his First Amendment rights. Many who knew Elonis interpreted his posts as threatening. The posts also generated great concern within his workplace, where Elonis committed sexual harassment, held a female at knifepoint prior to the postings, and made violent threats to a kindergarten class. Furthermore, his ex-wife had applied for and been granted a restraining order.

When Elonis's former employer informed the Federal Bureau of Investigation ("FBI") of the posts, the agency began monitoring Elonis's Facebook activity. Soon thereafter, Elonis was arrested on December 8, 2010, and charged with five counts of violating a federal anti-threat statute, 18 U.S.C. § 875(c).[1] The law makes it a federal crime to transmit in interstate commerce "any communication containing any threat ... to injure the person of another."

At trial, Elonis requested a jury instruction that the government was required to prove that he intended to communicate a "true threat."[2] Instead, the District Court instructed the jury that Elonis could be found guilty if a reasonable person would foresee that his statements would be interpreted as a threat. Elonis was convicted on four of the five counts and renewed his jury instruction challenge on appeal. The Third Circuit Court affirmed, holding that Section 875(c) requires only the intent to communicate words the defendant understands and that a reasonable person would view as a threat.

After his motion to dismiss his indictment was denied, the defendant was convicted in the United States District Court for the Eastern District of Pennsylvania for making threatening communications based on comments he posted on Facebook. The defendant thereafter appealed to the United States Supreme Court. The Supreme Court, in an opinion written by Chief Justice Roberts, held that the defendant's conviction required only the demonstration that the defendant intended to issue threats or knew that communications would be viewed as threats.

III. CONTENTIONS OF THE PARTIES

A. SUMMARY OF PROPONENT'S POSITION

Elonis, as a petitioner filed a motion to dismiss the indictment, arguing the First Amendment required the government to prove he had a subjective intent to threaten in order to convict him for making threats. Further, he stated his Facebook comments were not "true

threats," arguing instead that (1) he was an aspiring rap artist and his comments were merely a form of artistic expression and (2) a therapeutic release to help him deal with the events in his life and, most importantly, (3) protected free speech.[2] In an apparent attempt to underscore that his comments should not be taken seriously, he posted links to many other "YouTube" videos that he parodied and noted that a popular rap artist often uses similar language in his lyrics. For several of his comments, he also posted a disclaimer stating: "This is not a threat."

B. SUMMARY OF OPPONENT'S POSITION

The government responded by claiming the Petitioner made true threats as the same was defined under Section 875(c). As expressly stated in 18 U.S.C.A. 875 (c), ... "Whoever transmits in interstate or foreign commerce any communication containing any threat to kidnap any person or any threat to injure the person of another, shall be fined under this title or imprisoned not more than five years, or both." Elonis was aware of the meaning and content of his Facebook posts, as the posts communicated a serious expression of an intent to do harm. Even if the petitioner subjectively intended his posts to carry a different meaning, those beliefs did nothing to prevent or mitigate the substantial fear and disruption that his threats caused. The First Amendment does not require that a person be permitted to inflict those harms based on an unreasonable subjective belief that his words do not mean what they say.

The court found that the statute's inclusion of the word "threat" means that conviction requires a statement that a reasonable person communicates an intent to do harm. Chief Justice Roberts further narrowed the standard, stating, "state of mind is relevant in that the test for whether any of the Facebook postings described in the indictment were true threats is an

[2] 18 U.S.C. § 875(c) Whoever transmits in interstate or foreign commerce any communication containing any threat to kidnap any person or any threat to injure the person of another shall be fined under this title or imprisoned not more than five years, or both. "True threat" is defined as a statement "meant to frighten or intimidate one or more specified persons into believing they will be seriously harmed by the speaker or by someone acting at the speaker's behest. "TITLE 18—CRIMES AND CRIMINAL PROCEDURE ." Govinfo.gov, United States Government, 18 Mar. 2021, https://www.govinfo.gov/help/uscode.

objective test that focuses on what a reasonable person in the position of the defendant as the maker of the statement would expect to be the reaction to the statements." [3]

Following a jury trial in the United States District Court, Elonis was convicted on four counts of transmitting in interstate commerce a "threat to injure the person of another," in violation of 18 U.S.C. 875(c). The district court sentenced him to 44 months of imprisonment, followed by three years of supervised release. These counts were based on his Facebook posts. Count 1 alleged threats against patrons and employees of the amusement park, Count 2 alleged threats against his wife, Count 3 alleged threats against local law enforcement, Count 4 alleged threats against a kindergarten class, and Count 5 alleged threats against Agent Stevens. The court of appeals observed that the First Amendment permits criminal punishment for communication that qualifies as a "true threat." The First Amendment does not require proof of subjective intent to threaten. The court noted that a "prohibition on true threats protect[s] individuals from the fear of violence and from the disruption that fear engenders, in addition to protecting people from the possibility that the threatened violence will occur." [4]

However, the conviction of threatening another person does not require proof that the defendant meant what was said in a literal sense to be convicted under the federal anti-threat statute. To constitute a true threat when a defendant intentionally makes a statement in a context or under such circumstances wherein a reasonable person would foresee that the statement would be interpreted as a serious expression of an intention to inflict bodily injury or take the life of an individual.

IV. DISCUSSION AND FINDINGS

After carefully reviewing both positions, it is believed that the rights under the First Amendment must be sacrosanct. However, the First Amendment law does not exist without boundaries. It is intended to operate in a civilized society that protects its citizens from

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[3] CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE THIRD CIRCUIT . *ELONIS v. UNITED STATES . 1 June 2015, https://www.supremecourt.gov/opinions/14pdf/13-983_7l48.pdf. Accessed 29 Apr. 2022*

[4] *Virginia v. Black,* (2003) If a state's cross-burning statute treats any such incident as being on the face of it an intention to intimidate another, it violates the constitution. "Virginia v. Black, 538 U.S. 343 (2003)." Justia Law, https://supreme.justia.com/cases/federal/us/538/343/.

[5]"threats, intimidation and coercion," which is at the heart of federal and state civil rights statutes.

This decision was written well before cybersecurity crimes, and bullying reached epidemic proportions, which would warrant an even stricter analysis or broader application. There seems to be even additional legislation enacted due to the sophistication of third-party platforms, which allow for the dissemination and the erasing or eradication of statements made to a person or a smaller subset of individuals.

As the Supreme Court concluded in Elonis, "A Defendant who is familiar with the meaning of the words spoken and their context, however, can constitutionally be held accountable for the immediate and serious harm that true threats inflict. The First Amendment's protection of free speech - which has historically coexisted with a categorical denial of protection to true threats - does not demand otherwise.

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[5] M.G.L.c.12, Section 11H-11J: Whenever any person or persons, whether or not acting under color of law, interfere by threats, intimidation or coercion, or attempt to interfere by threats, intimidation or coercion, with the exercise or enjoyment by any other person or persons of rights secured by the constitution or laws of the United States, or of rights secured by the constitution or laws of the commonwealth, the attorney general may bring a civil action for injunctive or other appropriate equitable relief in order to protect the peaceable exercise or enjoyment of the right or rights secured. "Section 11H." General Law - Part I, Title II, Chapter 12, Section 11H, https://malegislature.gov/laws/generallaws/parti/titleii/chapter12/section11h.

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A Promising Solution to Massachusetts' Housing Crisis: A Legal and Economic Analysis of the MBTA Communities Act (2021)

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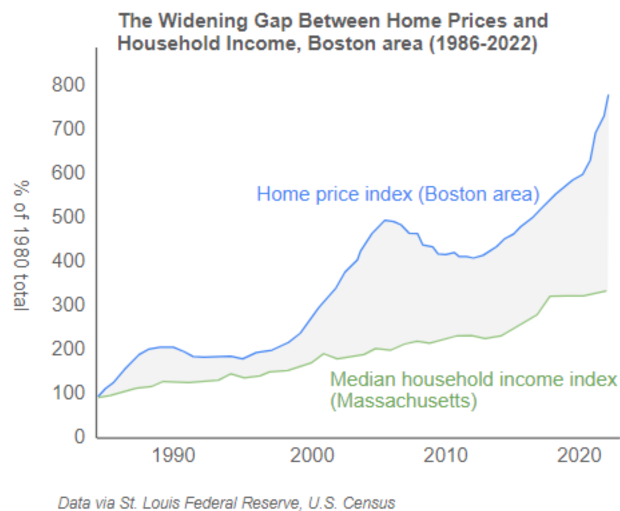
A PROMISING SOLUTION TO MASSACHUSETTS' HOUSING CRISIS: A LEGAL AND ECONOMIC ANALYSIS OF THE MBTA COMMUNITIES ACT (2021)

FRANCIS HODGENS [1]

Abstract: Massachusetts has a housing affordability crisis. While metropolitan areas across the country struggle to keep housing costs down as demand rises, Greater Boston's struggle is particularly acute. Decades of poor land use planning, driven by uncoordinated decision-making at the local level, has resulted in what amounts to a tragedy of the commons. Sprawling development, while good for municipalities' bottom lines, means even communities far from downtown Boston have little remaining developable land. As a result, housing production has declined dramatically, driving single-family home prices up to 11 times what they were in 1980.[2] Over the same period, median household income in the area has increased by only 2.9x, meaning that more families in the Boston area struggle to afford to house now than at any other time in recent history. In fact, the Boston Globe reports that the average family makes a third of what would be required to afford a single-family home in the Boston area.[3] The exhibit (right) illustrates how home value growth has far exceeded household income growth in Boston over the past 40 years, with the two diverging dramatically in the late 2010s.



[1] Francis Hodgens is a senior in the Carroll School of Management at Boston College pursuing a B.S. in Management with concentrations in Accounting and Business Analytics. Fran is enthralled by megaprojects and transportation infrastructure, and he enjoys learning how local governments approach development, particularly in suburbs. Beyond his academic interests, Fran is an avid runner and skier who loves to spend time with his family and friends. Upon graduation, Fran will be working in management consulting.

[2] Town of Lincoln. (2023). *Housing Choice Initiative*. https://www.lincolntown.org/DocumentCenter/View/65281/Housing-Choice-Initiative-Summary, 1.

[3] Daigo Fujiwara and Rebecca Ostriker, "Read the Report from the Spotlight Team: Beyond the Gilded Gate," BostonGlobe.com, n.d., https://apps.bostonglobe.com/2023/10/special-projects/spotlight-boston-housing/beyond-the-gilded-gate/.

In this paper, I will evaluate the MBTA Communities Act (2021) – the most consequential piece of Massachusetts housing legislation in over 50 years. First, I will outline the history of zoning in Massachusetts, as well as the Massachusetts Comprehensive Permit Law: 40B (1969), which was the state's first attempt at addressing challenges associated with housing affordability. I will compare the MBTA Communities Act and 40B based on their policies, legality, and economic impacts. Next, I will evaluate the extent to which the MBTA Communities Act addresses the challenges associated with 40B, as well as the places where it falls short. Finally, I will conclude the paper with recommendations to policymakers to ensure the MBTA Communities Act is successful in its goal to increase housing production in Greater Boston. I argue that the MBTA Communities Act (2021) offers a promising solution to the longstanding economic hurdles linked with M.G.L. Chapter 40B (1969); however, its efficacy within the legal framework of robust local land governance necessitates further exploration and analysis.

I. History

Ia. *Zoning in Massachusetts*

For the past 100 years, zoning in Massachusetts has been largely left to city and town governments, known collectively as "municipalities." Legalizing zoning in the United States came from the *Village of Euclid v. Ambler Realty*,[4] which allowed states to dictate when and where homes and businesses could be built using the police power granted to the states in the 10th Amendment. Though zoning in the US is generally effective in preventing noxious land uses, like building a casino next door to an elementary school, the language of *Euclid* is a stark reminder of the prevailing attitudes of policymakers at the time. The justices deemed apartment buildings "parasitic" to neighborhoods containing single-family homes, offering a glimpse of exclusionary zoning practices that would ultimately prevail in many parts of the US, but particularly in Massachusetts.[5] Within months of *Euclid*, Massachusetts lawmakers granted municipalities broad zoning rights, and affluent communities like Brookline and Weston took the opportunity to ban "triple-deckers quickly," or the multi-family homes that commonly housed Boston immigrant families at the time.[6] The passage of the *Home Rule Amendment* (1966) and

[4] 272 U.S. 375.

[5] Goetz, E. G., & Wang, Y. (2020). Overriding exclusion: Compliance with subsidized housing incentives in the Massachusetts 40B program. *Housing Policy Debate*, 30(3), 458.

[6] Ebbert, S. (2023, November 8). Brookline homes: One wealthy liberal town reckons with its past. *The Boston Globe*. https://apps.bostonglobe.com/2023/10/special-projects/spotlight-boston-housing/brookline-identity-crisis/

subsequent Massachusetts Supreme Judicial Court rulings bolstered the idea that "land use regulations [are] a part of a municipality's general home rule authority."[7] The intersection of Massachusetts' history of community-based governance and policies giving municipalities broad authority over zoning kicked off a decades-long period of development aligned solely with municipal (local) interests.

Ib. The Massachusetts Comprehensive Permit Law: Chapter 40B (1969)

The 1960s kicked off a period of social upheaval across the United States, particularly in Massachusetts. Though Massachusetts residents were broadly supportive of the goals of the Civil Rights movement, many struggled to come to terms with profound levels of racial segregation in state cities and towns by the middle of the 20th century. By 1965, Massachusetts lawmakers passed *The Racial Imbalance Act* with the goal of integrating highly segregated schools in Boston. The act catalyzed a practice known colloquially as "busing," and it proved contentious from the beginning. Boston residents were dismayed at the implications of the policy and blamed suburban legislators for imposing their will on already stressed city schools without personally experiencing any of the impacts of such legislation.[8]

At the same time, a nationwide movement for increased affordable housing development came to its peak with President Nixon's appointment of George Romney as Secretary of Housing and Urban Development. Across the country, state legislatures passed laws to incentivize the creation of affordable housing. Boston lawmakers – upset at suburban lawmakers who had supported busing – used the movement to pass an "anti-snob zoning act," forcing the construction of affordable housing developments in suburban lawmakers' neighborhoods that had been marked by years of exclusionary zoning. The Massachusetts Comprehensive Permit Law (1969) – better known simply as "40B" – required all 351 Massachusetts municipalities to maintain 10% of all housing units as affordable housing. For communities that did not meet this goal, 40B gives developers the opportunity to apply for a single zoning approval from the municipality, saving time by skipping several municipal board approvals that traditional developments face.[9]

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[7] Barron, D. J., Frug, G. E., Su, R. T., & Boston, R. I. for G. (2004). *Governing Greater Boston: Local authority in Greater Boston*. Rappaport Institute for Greater Boston.

[8] Givan, J. H. (2019, July 22). 50 years of 40B: another Massachusetts failure. *Telegram & Gazette*. https://www.telegram.com/story/news/columns/2019/07/22/50-years-40b-another-massachusetts/4641484007/

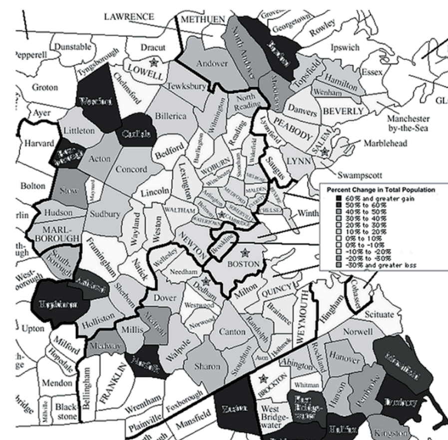
[9] Kauppila, W. (2016, August 5). *Town residents clash with developers over Chapter 40B housing law.* Pioneer Institute. https://pioneerinstitute.org/blog/town-residents-clash-developers-chapter-40b-housing-law/

Despite early challenges to 40B, often on the grounds that it violated municipal Home Rule, the law survives to this day. A 2010 ballot initiative to repeal 40B was rejected by 58% of voters across the state, though the law continues to generate significant discord among residents and planners in Massachusetts communities.[10]

Ic. Massachusetts' Economic Renaissance

Unlike many other states that had historically relied upon heavy industry to support their economies, Massachusetts weathered the decline of domestic manufacturing because of its nascent information technology industry. The Massachusetts Turnpike (completed 1957), Route 128/I-95 (completed 1960), and I-495 (completed 1982) expanded the Boston commuting region and, at the same time, high technology firms like Boston Scientific, EMC, and Data General proliferated in the Boston suburbs, drawing commuters further from Boston toward rural areas that would ultimately become suburbs and exurbs.[11] The exhibit (right) illustrates the population growth catalyzed by residential construction in far suburban and exurban towns, often on single-family lots over an acre large. High-quality public K-12 schools began to define the Boston area, too, and in the later years of the exurban rise, residents often cited concerns about school quality as a primary reason for denying new housing developments.

Map 2: Population Change in Boston Metro Area From 1970 to 1998



Source: http://ase.tufts.edu/biology/envbio/humans/sprawl/chang/boston/html. Massachusetts Institute of Sociological and Economic Research. County Map by Massachusetts State Government. Data compilation and map coloration by Alex Chang, Tufts University 2000.

Notably, it was also during this period (1980) that voters passed Proposition 2½: a highly consequential ballot measure for municipal finance. As a response to property tax rates near the highest in the United States, Proposition 2½ limited increases in property taxes for property owners by capping the amount of new taxes that municipalities could levy each year at no more than 2.5% of the total amount levied the year before. As a result, municipal finance entered a

[10] Goetz, E. G., & Wang, Y. (2020). Overriding exclusion: Compliance with subsidized housing incentives in the Massachusetts 40B program. *Housing Policy Debate*, 30(3), 6.

[11] Exurbs are defined by the American Communities Project as communities on the "outskirts of metro areas" with highly-educated, affluent families that often tend to be more politically conservative than their suburban and urban counterparts.

period of distress through the 1990s – distress alleviated only by increases in development that permitted growth in the total tax levy beyond the 2.5% limit.[12]

Id. The Run-up to the MBTA Communities Act (2021)

As Massachusetts' economic renaissance continued to power growth across the state, the MBTA Commuter Rail began to service the suburbs, and ultimately exurbs, of Boston. From the mid-1980s through 2003, the Commuter Rail service expanded with the growth of "Park-and-Ride" lots, where commuters drove to train stations, often far from residential developments, to commute into Boston.

By the end of the 2000s, what had seemed endless growth in Massachusetts municipalities began to falter. A combination of factors, including the 2008 Global Financial Crisis and increasing alarm over municipal finance, led to a plunge in development activity. During the 2010s, 207 of 351 municipalities permitted no homes with more than five units, and over a third allowed only single-family homes.[13]

In 2015, Governor Charlie Baker appointed an Economic Development Council to identify areas of focus for the Administration to combat the most critical issues facing the Commonwealth. By 2019, they had identified the housing shortage as a particularly severe challenge for the state, including it as one of four "Pillars" of the *Partnerships for Growth Report* (2019). The report laid the foundation for the Administration's "economic development programs, funding, and legislative efforts" – one of which was the Housing Choice law.[14] The Housing Choice law (H.5250) amended the Zoning Act (M.G.L. Ch. 40A), including provisions compelling communities serviced by the MBTA to adopt zoning practices in favor of denser, transit-oriented housing development.[15] The MBTA Communities Act, as it came to be known, was intended to facilitate housing production and, in turn, reduce the cost of housing in Massachusetts.

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[12] Rosan, C., & Susskind, L. (2007). Land-Use Planning in the Doldrums: Growth Management in Massachusetts' I-495 Region. In *Harvard Kennedy School*. Rappaport Institute for Greater Boston. https://www.hks.harvard.edu/sites/default/files/centers/rappaport/files/doldrums_final.pdf, 11-14.

[13] Forgione, R. (2020). A New Approach to Housing: Changing Massachusetts's Chapter 40R from an Incentive to a Mandate. *Suffolk University Law Review*, 53(199). Nexis Uni, 213-215.

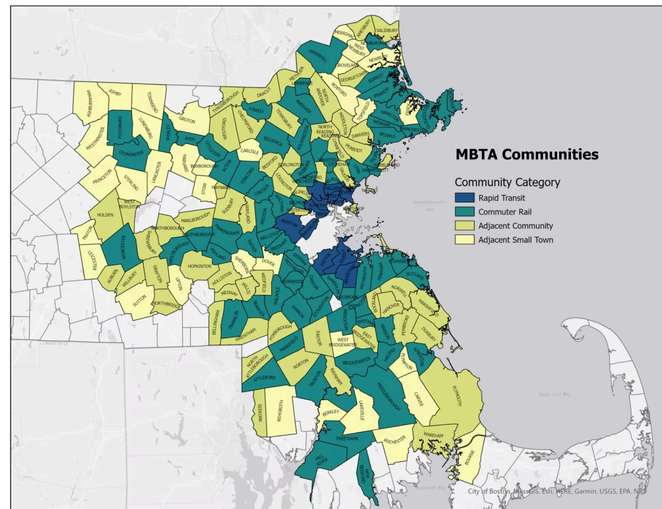
[14] *Partnerships for growth*. (2023). Commonwealth of Massachusetts. https://www.mass.gov/info-details/partnerships-for-growth.

[15] KP Law. (2021). *Housing Choice Act of 2020 Update*. https://www.lincolntown.org/DocumentCenter/View/65233/eUpdate_Housing_Choice_Act_2020--KP-Law, 1-3., Town of Lincoln. (2023). Housing Choice Initiative. https://www.lincolntown.org/DocumentCenter/View/65281/Housing-Choice-Initiative-Summary, 2.

II. Analysis

IIa. Purpose and Scope of the Laws

The purpose and scope of 40B and MBTA Communities are the result of their different contexts and the prevailing approaches to planning and development at the time. All 351 municipalities in Massachusetts are covered by 40B, and its purpose is to increase the supply of affordable housing across the Commonwealth.[16] MBTA Communities, on the other hand, applies only to the 177 "MBTA communities" across eastern Massachusetts, which include communities served by and adjacent to T and Commuter Rail stops. The purpose of this act, in short, is to increase the supply of housing around existing public transit stops.[17] MBTA Communities compels communities to zone for multi-family housing by-right[18] in a region of "reasonable size" within half a mile of an MBTA station, with adjacent communities having slightly less stringent requirements for the extent of their multi-family zoning area. The exhibit above illustrates the municipalities affected by the law, demonstrating how, unlike 40B, its impact will largely be limited to the suburbs and exurbs of Boston.



Though each law's purpose and scope may seem tied only loosely by geography (Massachusetts) and broad purpose (housing production), it's impossible to understand the context and implications of MBTA Communities without understanding 40B and its legacy across the Commonwealth. As the most recent consequential legislation nudging municipalities toward housing production, 40B may ultimately predict the legal, economic, and public response to MBTA Communities.

IIb. Compliance and Enforcement

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[16] Kauppila, W. (2016, August 5). *Town residents clash with developers over Chapter 40B housing law*. Pioneer Institute. https://pioneerinstitute.org/blog/town-residents-clash-developers-chapter-40b-housing-law/.

[17] Dain, A. (2022, December). *A series of articles about the MBTA communities zoning law*. Lincoln Institute of Land Policy, 3-5. https://www.lincolninst.edu/publications/working-papers/series-articles-about-mbta-communities-zoning-law, 3-5.

[18] By-right: Without special approval or additional consideration compared to other land uses

The compliance and enforcement mechanisms of MBTA Communities solve many of the challenges of enforcing 40B over the last 50 years of development. For background, 40B stipulates that 10% of the housing units within a municipality must be designated as "affordable housing" in the state register. In other words, 10% of homes in the community must be available for purchase/rent only by people who meet low-income housing eligibility criteria. For municipalities that fail to meet these requirements (at the time 40B passed, nearly every community failed to comply), housing developers willing to set aside 20-25% of units as affordable are allowed to gain a "single approval" from municipal zoning boards of appeal for any new development, rather than passing through several planning and development boards before beginning construction. If a community denies the single approval, then the developer can appeal to the Housing Appeals Committee (HAC), which has historically ruled in favor of developers for over 8 in 10 appeals.[19] Still, delays in approval can render a project uneconomic for a developer, reducing the overall efficacy of the system.

Three main issues arise from 40B's enforcement mechanism: the lack of a coherent housing production plan, continuous compliance, and low incentive for communities to comply. Since 40B focuses narrowly on streamlining the approval process for developers, it does not call for any kind of central plan for housing development at the municipal level,[20] which means 40B developers often lack a framework from a target community for how to site development near existing infrastructure, including public transportation. In fact, 40B developments often require municipalities to *respond* to new demands on infrastructure, which is more costly and time-consuming than planning for changes ahead of time. Moreover, 40B's 10% affordable housing requirement (in absolute number of housing units) changes over time; a community in compliance one day can fall out of compliance the next. Property owners can convert affordable housing into market-rate units after a period, and all new housing developments contribute to a higher "denominator" of housing,[21] which means new affordable housing developments are required to stay in compliance. Finally, there is a relatively low incentive for communities to meet the 10% affordability requirement. A streamlined approval process for developments –

[19] Barron, D. J., Frug, G. E., Su, R. T., & Boston, R. I. for G. (2004). *Governing Greater Boston: Local authority in Greater Boston*. Rappaport Institute for Greater Boston, 45-46.
[20] Gordon, J. (2006). Mandatory inclusionary zoning— the answer to the affordable housing problem. *Boston College Environmental Affairs Law Review*, 33(2), 387-392.
[21] Goetz, E. G., & Wang, Y. (2020). Overriding exclusion: Compliance with subsidized housing incentives in the Massachusetts 40B program. *Housing Policy Debate*, 30(3), 476.

when proposed – is a small price to pay for noncompliance, especially when surrounding towns also do not comply. Over 50 years after 40B became law, 81% of communities still do not meet the 10% affordable housing requirement,[22] highlighting how there is room for improvement in the enforcement of housing production regulations in Massachusetts.

Enter the MBTA Communities Act: Massachusetts' most consequential housing reform law in decades. MBTA Communities solves many of the problems with 40B enforcement as written. Rather than focusing on streamlining the approval process within the existing structures of local land use planning, MBTA Communities requires planning proactively for areas of new development. Instead of calling for a specific share of the number of housing units, a community may comply with MBTA Communities with no *existing* multifamily developments. Compliance means each community must submit a plan to the state outlining the regions in which multi-family housing is allowed by right. For communities with Commuter Rail stations, these zones must be within a half mile of the station, limiting the need for additional infrastructure to connect new housing units with the outside world. Once a community has a reasonable share of developable (*not* necessarily developed) land zoned as by-right multi-family, it complies with the regulation, limiting the complex continuous enforcement process based on the current number of housing units that 40B required.

Incentives for compliance with MBTA Communities are much stronger than the incentives for communities to comply with 40B, and state leaders are continuing to strengthen enforcement mechanisms. Because Proposition 2½ left municipalities – especially those with minimal new development – fiscally strained, many rely on grants from the state to complete necessary public works projects. Leveraging municipal dependence on state grants, the drafters of MBTA Communities require affected communities to comply with the law or lose access to several state grant programs.[23] Within months of MBTA Communities' signing, 176 of 177 communities were on track to comply,[24] signaling that grant access is a compelling incentive for municipalities across the state. Notably, however, Attorney General Andrea Campbell suggested in March 2023 that noncompliant communities "may be subject to civil enforcement action"

[22] Anonymous. (2022). Addressing Challenges to Affordable Housing in Land Use Law: Recognizing Affordable Housing as a Right. *Harvard Law Review*, 135(4), 1113.
[23] Young, C. A. (2023, August 18). State adjusts approach to new housing in MBTA communities. NBC10 Boston. https://www.nbcboston.com/news/local/state-adjusts-approach-to-new-housing-in-mbta-communities/3116071/.
[24] Lavery, T. (2023, August 17). Mass. adds new penalties for towns not following MBTA Communities zoning law. MassLive. https://www.masslive.com/politics/2023/08/mass-adds-new-penalties-for-towns-not-following-mbta-communities-zoning-law.html.

under fair housing laws,[25] shifting enforcement from incentive to mandate. The following section will discuss the legal basis for the Act and its enforcement mechanisms, including AG Campbell's suggestion.

IIc. Walking the High Wire: The Legality of State-level Zoning Regulation

MBTA Communities will likely face a long road of legal challenges due to potential conflict with Home Rule, as well as 40B's legacy of complex litigation. Municipalities' control over zoning comes from three places: the state constitution, the Zoning Act (1975), and the Home Rule Amendment (1966). While Federal law grants zoning power to the states, Article 60 of Massachusetts' constitution gives the state legislature the authority to grant zoning rights to municipalities – which it did first with the Zoning Enabling Act (1954), then again with the Zoning Act (1975).[26] Massachusetts courts, too, have repeatedly extended "substantial deference to municipal zoning regulations when challenged by private parties,"[27] bolstering the zoning power of municipalities. Of all the legislative acts, the Home Rule Amendment broadened the zoning power of municipalities the most. Successful challenges to state-level zoning regulation often cite municipalities' "independent municipal powers included [in the Home Rule Amendment's] broad grant of powers to adopt ordinances or by-laws for the protection of the public health, safety, and general welfare."[28] Still, the Supreme Judicial Court has supported the idea that 40B is allowed based on the "legislature's supreme power in zoning," which suggests there may be precedent for the SJC to support MBTA Communities.

State-level preemption of municipal zoning power is far from a settled matter, however. In 2008 alone, the SJC heard seven cases related to 40B, often as a result of the "plain language" with which 40B is written.[29] Plain language, more susceptible to conflicting interpretations, has even led to SJC carve-outs within 40B to allow age restrictions on affordable housing, despite protections against age discrimination in both state and federal fair housing laws.[30] MBTA Communities addresses some of these challenges with clearer language than 40B and – notably –

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[25] Executive Office of Housing and Livable Communities., *Multi-Family zoning requirement*.

[26] The Zoning Enabling Act was superseded by the Zoning Act (1975), which updated the language and resulted in M.G.L. Ch. 40A.

[27] Barron, D. J., Frug, G. E., Su, R. T., & Boston, R. I. for G. (2004). *Governing Greater Boston: Local authority in Greater Boston*. Rappaport Institute for Greater Boston, 40-41.

[28] *Id. 45*.

[29] Weiss, D. S., & Rabieh, M. S. (2008). Wrestling with the "Plain Language" of Chapter 40B. *Boston Bar Journal*, 52(4)., 18.

[30] *Fair housing and related law*. (2023). HUD.Gov; U.S. Department of Housing and Urban Development (HUD). https://www.hud.gov/program_offices/fair_housing_equal_opp/fair_housing_and_related_law.

a requirement that new housing be "suitable for people of all ages." So while, in theory, it may make sense that MBTA Communities would be granted the same preemptive rights that 40B enjoys due to its passage by the state legislature, there still exists tension and a degree of unpredictability between Massachusetts court opinions about preempting municipal zoning rights.

Attorney General Campbell's claim that the Commonwealth could pursue a "civil enforcement action" against non-compliant communities merits further analysis, however. AG Campbell suggests communities "that fail to comply [...] risk liability under federal and state fair housing laws."[31] While there is some history of litigants using federal fair housing laws to limit exclusionary zoning practices, the results have been weak for opponents of exclusionary zoning. Typically, litigants use the language of the Fair Housing Act in Title VIII of the Civil Rights Act (1964) – that "prohibits discrimination in the sale, rental, and financing of dwellings, and in other housing-related transactions"[32] – to support claims that zoning that *de facto* excludes people of certain backgrounds is forbidden. Courts have largely applied this rule to the buying and selling of homes, though, rather than the structure of zoning ordinances. There is also not much evidence to suggest that other federal housing regulations have a large impact on municipal land use planning, particularly because many Massachusetts municipalities do not rely on grants from Housing and Urban Development that would require compliance with stricter, "affirmative" anti-discrimination laws.[33] As far as state fair housing laws go, there have been no material challenges to municipal zoning ordinances that have broadened the scope of M.G.L. 151B Section 4 (Massachusetts Fair Housing Law) beyond home sale and rental transactions.[34] Massachusetts state and federal regulations seem aligned on that matter.

Although disputes over 40B and state preemptive rights over zoning suggest MBTA Communities will be upheld in upcoming legal challenges, there is far less convincing evidence that AG Campbell's alternative avenue for enforcement will enjoy much success in the courts.

IId. Municipal Responses to Development

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[31] Executive Office of Housing and Livable Communities. (2023). *Multi-Family zoning requirement for MBTA communities*. Commonwealth of Massachusetts. https://www.mass.gov/info-details/multi-family-zoning-requirement-for-mbta-communities.

[32] *Fair housing and related law*. (2023). HUD.Gov; U.S. Department of Housing and Urban Development (HUD). https://www.hud.gov/program_offices/fair_housing_equal_opp/fair_housing_and_related_law.

[33] Craig, J. A. (2022). Pigs in the Parlor: The legacy of racial zoning and the challenge of affirmatively furthering fair housing in the south. *Mississippi College Law Review*, 40(5). Nexis Uni., 12.

[34] General law., *Part I, Title XXI, Chapter 151B, Section 4*.

Many analyses of municipal land planning in Massachusetts focus on addressing the legacy of exclusionary zoning practices, but few attempt to fully grapple with the causes of exclusionary zoning in the first place. Members of the "Yes in my Backyard" (YIMBY) movement often criticize community input sessions for new development initiatives. News outlets, too, cite alarming comments from residents who use phrases like "those kinds of people" when referring to residents of a proposed multi-family complex, with some commentators suggesting that such comments constitute "dog whistles" for racist community members to begin exerting influence on the approval process. To rely on this as a mental model for why exclusionary zoning exists lacks intellectual rigor and will leave a person less equipped to address the problem of weak housing production in Massachusetts. The municipal finance perspective, although decidedly not well suited for social media headlines, is much more instructive than community input session soundbites in determining the root causes of exclusionary zoning.

In straightforward terms, additional homes in a town require additional public goods, which – from the perspective of a municipality – are expenditures to be kept at a minimum. Particularly in areas that lack existing infrastructure like water and sewer, limiting new development to large, septic system-dependent, single-family lots reduces the marginal cost of each new resident while maintaining high tax revenue due to the relatively high value of land in Massachusetts.[35] A strong emphasis on the impact of class sizes on school quality, in tandem with the high importance of school quality in the suburbs and exurbs of Boston, means it is in the best interest of town planners to limit new developments to the largest lots possible. While such a strategy is tenable for a municipality in the short term, many become "built out" over time,[36] limiting opportunities for development without special permitting and giving rise to the dramatic community meetings during which residents share their individual perspectives on development. Land use planning on the municipal level is generally in the best interest of the municipality; however, the new home marginal cost problem proves disastrous on a regional level, as sprawling development and subsequent "building out" of suburban areas constrict supply as demand for homes in the area continues to rise.

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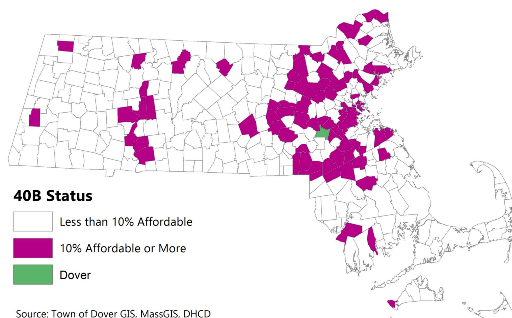
[35] Rosan, C., & Susskind, L. (2007). Land-Use Planning in the Doldrums: Growth Management in Massachusetts' I-495 Region. In *Harvard Kennedy School*. Rappaport Institute for Greater Boston, 14-15.
[36] Schuetz, J., Schuster, L., Crump, S., & Mattos, T. (2020, October 14). Fixing Greater Boston's housing crisis starts with legalizing apartments near transit. Brookings. https://www.brookings.edu/articles/fixing-greater-bostons-housing-crisis-starts-with-legalizing-apartments-near-transit/.

The solution to this problem, then, is to increase density within municipalities in Greater Boston, and MBTA Communities achieves this goal in a much more sensible way than 40B did. While 40B projects require dramatic public information sessions where residents pore over the details of a massive multifamily project over which town planners can exert little control anyway, MBTA Communities requires a structural change in how municipalities plan for development far ahead of construction. By-right, multi-family zoning around MBTA stations means additional permitting will not be required should a developer choose to build a multi-family home versus a single-family home, and developers should not have to propose the same types of housing complexes with hundreds of units to justify the arduous, time-consuming permitting process that ultimately defined 40B.

IId. Economic Impacts

Where 40B and MBTA Communities diverge the most is in their economic impacts. First, increasing the supply of affordable housing and improving housing affordability are not exactly the same goals. *Affordable housing* – in the context of 40B – is housing sold or rented at a low price and available only to those with a relatively lower income than their peers, verified by state authorities. For people who make more than the maximum amount for 40B eligibility, there is little benefit from affordable housing-only development. *Housing affordability* is a broader term that encompasses a much wider range of home prices and household incomes, however. There are no existing mechanisms for the state to mandate housing affordability (rent controls, for example, remain illegal in Massachusetts), but with MBTA Communities, lawmakers are trying to nudge municipalities and developers to work together to produce more housing. By increasing supply, according to the basic economic principles of supply and demand, prices should fall, or at least should stop increasing at the same rate that they are currently rising.



The economic impacts of 40B are well documented, and its impact on the supply of affordable housing (*not* housing affordability) is positive; however, its lack of an effective enforcement mechanism resulted in most municipalities remaining out of compliance, even over 50 years after its implementation. The exhibit – at left – from the Town of Dover illustrates how

even in eastern Massachusetts, where home prices are highest, many towns remain non-compliant. Moreover, while affordable housing advocates claim 40B increased the supply of affordable housing by 31,000 units and market-rate housing by 58,000, this was over the course of over 50 years.[37] During the same time frame, Massachusetts' population increased by over 1.3 million people, and recent estimates place the number of housing units required to meet demand in the next 20 years at just under 500,000.[38] Even from the most charitable perspective, 40B does not meaningfully contribute to the gains in housing supply that Massachusetts has needed and continues to need.

MBTA Communities, on the other hand, was written with the broader goal of housing production and densification in mind. Rather than focusing on state-certified affordable housing and state-certified needy occupants, MBTA Communities aims to liberalize zoning so that municipalities can prepare for increased housing density in areas with transportation infrastructure. As a result of its broader vision to increase housing affordability in Greater Boston, MBTA Communities is expected to ultimately permit the development (via zoning changes) of 283,000 housing units, although the true number of homes will likely be much lower,[39] as not every developable lot is ultimately developed to its maximum use in practice.

Although it does not fall within the scope of this paper, there is some ethical tension associated with increasing housing supply to rein in home price growth. For people who hold most of their personal net worth in their homes, home value declines can reduce access to credit. For long-time homeowners, changes to home values may radically alter plans to retire using the gains from the sale of a primary home. The longer that home prices remain high and increasing in the region, the greater the number of people who will be affected by efforts to curb home price growth. A timely solution to Massachusetts' housing affordability crisis is imperative.

III. Conclusion

IIIa. Implications

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[37] Forgione, R. (2020). A New Approach to Housing: Changing Massachusetts's Chapter 40R from an Incentive to a Mandate. *Suffolk University Law Review*, 53(199). Nexis Uni, 208.

[38] Dain, A. (2022, December). *A series of articles about the MBTA communities zoning law*. Lincoln Institute of Land Policy, 3.

[39] Dain, A. (2022, December). *A series of articles about the MBTA communities zoning law*. Lincoln Institute of Land Policy, 8.

The MBTA Communities Act's orientation toward housing affordability, as opposed to affordable housing, will make it much more effective than 40B in reducing housing costs in the Boston area. As home prices continue to rise far beyond household incomes in eastern Massachusetts, people with incomes greater than those who qualify with the state for affordable housing are strained by housing costs. While 40B created some additional housing units over its 50+ years in effect, it would be irresponsible to rely on this outdated, imperfect piece of legislation alone to meet the rising need for housing in the Boston area. MBTA Communities, if successfully implemented, can induce the structural changes in zoning required to permit housing production in development-averse suburbs, especially. Moreover, MBTA Communities' stronger enforcement mechanism – limiting state grant access – positions it much more effectively to compel communities to comply than 40B ever did. Recent comments from Massachusetts Attorney General Andrea Campbell that MBTA Communities would be enforced via civil rights litigation against noncompliant communities underlines the seriousness with which state authorities are facing Massachusetts' housing affordability problem; however, there is no evidence that a civil rights suit is an effective way to change zoning practices. Finally, while MBTA Communities encourages densification around existing transit stations, it could do more to help fiscally strained communities address the impact of new development on public infrastructure and schools.

IIIb. Recommendations to Policymakers

After analyzing the legal, economic, and public policy implications of the MBTA Communities Act, I have three suggestions for policymakers to ensure the act is successful in its goal to increase housing supply (and, in turn, affordability) in Greater Boston.

1. **Eschew complex and expensive civil rights litigation and instead aim at developing more effective nudges toward exceeding goals**. Enforcing structural changes to municipal zoning practices via litigation is misguided and wastes valuable resources that could otherwise be used to nudge municipalities toward not only meeting – but instead exceeding – housing production goals. Even before threatening litigation, 176 of 177 MBTA Communities were on track for compliance, although not without significant concern from residents and municipal leaders. To shift municipalities from mere compliance toward exceeding goals, policymakers should remember state lawmakers shape the way municipalities act, and their policies set the "default option" for development. The current

default option of large-lot, single-family homes is bad for housing production. Nudging municipalities toward more effective land use techniques by expanding grants for costly infrastructure improvements, like water and sewer services, should induce a necessary change in the default settings that have for years been defined by minimizing development to extremely low-density neighborhoods serviced by wells and septic systems.[40]

2. **Create new financial rewards for housing production, particularly for multi-family developments**. While MBTA Communities is poised to facilitate family-oriented housing development, it does not directly address one of the primary reasons why large lot, single-family residential zoning has dominated the suburbs of Boston in the first place: municipal finance. To be sure, municipalities will comply if enforcement is strong enough; however, introducing a new benefit to communities with more equitable land use policies may incentivize zoning changes beyond the minimum amounts required in the act. For example, for school districts receiving Chapter 70 funding from the Department of Elementary and Secondary Education, introducing a new component of the calculation that provides more aid to communities with a greater share of multi-family units may promote development while assuaging resident and municipal official concerns over the impact of new housing on school quality.
3. **Work to make dramatic improvements to the public image of the MBTA and, specifically, the Commuter Rail service**. In recent years, especially, the MBTA has struggled to maintain public support due to high-profile scandals and poor operational performance. Though the MBTA Commuter Rail (administered by Keolis) has experienced much higher ridership and reliability than it has historically enjoyed, many Massachusetts residents are personally unfamiliar with the system. Connecting hundreds of thousands of new housing units to MBTA infrastructure is an excellent idea, so long as using MBTA infrastructure is equally or more convenient than driving a car to key destinations.

The MBTA Communities Act stands to rectify the longstanding challenges stemming from inadequate land use planning in the Greater Boston area. In addition to upholding robust enforcement mechanisms, policymakers should explore avenues to alleviate the financial burdens placed on municipalities when adhering to the legislation. Moreover, they should assess

[40] Thaler, R. H., & Sunstein, C. R. (2009). *Nudge: Improving decisions about health, wealth, and happiness* (pp. 1–14). Penguin.

strategies that yield advantages for communities, aligning their land use plans with regional development objectives to advance the collective welfare of the region. Finally, taking concerns over the reputation of the MBTA seriously and aiming to not only compete with, but beat the speed of driving should be a top priority for state lawmakers.

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Accountability in Autonomous Automobile Accidents: The Issue of Liability with Self-Driving Cars

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ACCOUNTABILITY IN AUTONOMOUS AUTOMOBILE ACCIDENTS: THE ISSUE OF LIABILITY WITH SELF-DRIVING CARS

JOSEPH MURPHY [1]

Abstract: With the increased implementation of self-driving cars on public roads, crashes and deaths caused by these vehicles have highlighted the complex matter of liability in these circumstances. The discussion of trials and cases surrounding deaths by autonomous vehicles illuminates how responsibility is deferred from the car manufacturer and placed primarily on the human behind the wheel. This paper highlights misconceptions about the level of automation in autonomous vehicles by the public and describes the necessity of proper tort liability law to adapt to the ever-changing automobile environment.

If a discussion of self-driving cars had arisen in the 2000s, it most likely involved Herbie from *Love Bug*, Christine from *Christine*, or Lighting McQueen from the *Cars* franchise. Nowadays, the topic of driverless cars has switched lanes from the realm of fiction and horror films to debates about legislative and legal issues. From the advent of the first autonomous vehicle prototypes in the '70s and '80s, these technologies have become less experimental and more commonplace, which makes the laws and regulations surrounding them crucial. Autonomous cars' rise in popularity has introduced new roadblocks to matters of liability, and it is up to cooperation between governmental agencies and corporations to ensure safety and accountability on the roads.

To understand the development and implementation of autonomous automobiles, one must first understand the different levels of automation through which automobile technology has developed. As defined by the Society of Automotive Engineers (SAE), there are six levels of automation for vehicles. They range from Level 0, where the human controls all aspects of the driving, to Level 5, where the car itself performs all the necessary functions of driving.[2] The taxonomy and terminology used about autonomous vehicles are essential to the question of

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[2] "J3016_201806: Taxonomy and Definitions for Terms Related to Driving Automation Systems for on-Road Motor Vehicles." SAE International, June 15, 2018. https://www.sae.org/standards/content/j3016_201806/.

liability, as different levels of automation require different levels of human involvement/engagement.

Before the advent of self-driving cars, innovations made in the realm of automobile automation dealt with advanced driver assistance systems (ADAS). The first revolutionary stride in this field was the anti-lock braking system, which assists the driver by stopping the car's wheels from locking during the braking process and thus helps to account for inadequacies in human reaction time and capability.[3] Then, academic institutes across the globe began creating small-scale models of self-driving cars. One of these was Stanford University, whose Mechanical Engineering Design Division worked on a small vehicle that navigated using computer vision.[4] Another important addition to this research was made by the University of Tsukuba, as its autonomous vehicle used cameras to detect street markings and drive up to 20 miles per hour on Japanese roads.[5]

Figure 1-1 Terregator with camera and wireless telemetry navigating on CMU sidewalks.

[3] Benedetti, Michael. "The History of Adas." Jack's Glass, June 19, 2023. https://jacksglassshop.com/blog-the-history-of-adas/.
[4] "Lunar Vehicle Remote Control : A Study by Stanford University Mechanical Engineering Design Division--Outtakes." The History of Artificial Intelligence - Spotlight at Stanford. https://exhibits.stanford.edu/ai/catalog/jk541kq7003.
[5] "The 100-Year History of Self-Driving Cars." M21, August 4, 2020. https://mobility21.cmu.edu/the-100-year-history-of-self-driving-cars/.

Figure 1. Champeny-Bares, Lee, Syd Coppersmith, and Kevin Dowling. "The Terregator Mobile Robot." (1991).

The determination to create self-driving vehicles was an effort that required the joint cooperation and dedication of countless schools, but research done by Carnegie Mellon University was exceptionally transformative. The University conducted intensive research in 1986 into self-driving cars, specifically with its Autonomous Land Vehicle (ALV) Project. In a paper delineating its objectives, the CMU Robotics Institute said that its goal was to "build vision and intelligence for a mobile robot capable of operating in the real world outdoors."[6] The primary vehicle through which this initial research was conducted was the Terregator (seen in Figure 1), which utilized a sonar ring, a color camera, and the ERIM laser range finder to follow roads and avoid obstacles.[7] Building off of the information gathered from the Terregator experiments, CMU went on to create more advanced models in its Navigation Laboratory, including the Navlab 5, which steered itself all the way from Pittsburgh to San Diego.[8]

Along with corporations and academia, governmental contributions to research efforts were also fundamentally important. The U.S. Defense Advanced Research Projects Agency (DARPA) encouraged competition between different research teams with their "Grand Challenges," which saw teams creating fully autonomous vehicles to compete in races across different environments.[9] The first of these challenges, hosted in 2004, had no winners, as the vehicles were unable to complete the 150-mile off-road course. In 2005 and 2007, the second challenge saw multiple finishers, with the third challenge forcing autonomous vehicles to share the roads with each other and with human-operated automobiles.[10] This facilitation by the government led to rapid discoveries and unorthodox technologies, specifically regarding autonomous vehicles' ability to coexist on the road with other vehicles. Despite these efforts to increase collective knowledge about self-driving cars, they were still mostly relegated to research fields. Certain car manufacturers have worked to integrate autonomous features into their

[6] Kanade, Takeo, Chuck Thorpe, and William L Whittaker. "Autonomous Land Vehicle Project at CMU." Essay. In *Proceedings of ACM 14th Annual Conference on Computer Science (CSC '86)*, 71, 1986.
[7] Ibid.
[8] "The 100-Year History of Self-Driving Cars." M21.
[9] Anderson, James M., Nidhi Kalra, Karlyn D. Stanley, Paul Sorensen, Constantine Samaras, and Oluwatobi A. Oluwatola. "Brief History and Current State of Autonomous Vehicles." In *Autonomous Vehicle Technology: A Guide for Policymakers*, 56. RAND Corporation, 2014.
[10] Ibid., 57.

vehicles. Currently, some of the most advanced autonomous features in vehicles include GM's Super Cruise and Tesla's Autopilot.[11]

These futuristic innovations have not come without tragedy, as there have been multiple reports of injuries and fatalities due in some part to self-driving technology. In March 2018, the first known pedestrian death due to autonomous driving technology occurred in Tempe, Arizona, leaving Elaine Herzberg dead. Although the car was an autonomous vehicle operated by Uber, there was still a woman behind the wheel, Rafaela Vasquez. This led to a question of liability in the case: who would be held responsible for the death of Herzberg, the Uber company, or Vasquez? Ultimately, Vasquez was charged with negligent homicide but reached a plea deal with prosecutors, sentencing her to three years of supervised probation. With regards to Uber's liability, an Arizona court decided that the company was not at fault since Vasquez's inattention was seen as the inciting incident. Vasquez was thought to be watching television on her phone while behind the wheel, and she later revealed that she was also on Slack, a communication program primarily used for businesses.[12]

The Vasquez incident was not an isolated one, as another death was caused supposedly due to misconceptions about what the proper attention necessary to operate a vehicle with autonomous capabilities. In March 2018, Walter Huang, 38, turned on Autopilot in his Tesla Model X SUV, and less than 20 minutes later, Autopilot swerved the car and accelerated into a concrete highway barrier. His family filed a lawsuit claiming that Elon Musk and Tesla exaggerated the capabilities of its self-driving features, and Tesla eventually paid an undisclosed amount to settle the case.[13] During the time of the accident, evidence suggests that Huang was playing a game on his iPhone and not attentively watching the road. The collision and Autopilot's mishandling of the car were likely caused by faded lane lines and bright sunshine affecting the cameras.[14] Both Vasquez and Huang were not fully aware of their surroundings when their vehicles crashed, but is that due to a failure to understand the autonomous nature of

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[11] Garsten, Ed. "What Are Self-Driving Cars? The Technology Explained." Forbes, February 20, 2024. https://www.forbes.com/sites/technology/article/self-driving-cars/?sh=757c32895e07.

[12] Wakabayashi, Daisuke. "Self-Driving Uber Car Kills Pedestrian in Arizona, Where Robots Roam." The New York Times, March 19, 2018. https://www.nytimes.com/2018/03/19/technology/uber-driverless-fatality.html.

[13] "Tesla Settles Lawsuit over Fatal Crash Involving Autopilot Software." Los Angeles Times, April 9, 2024. https://www.latimes.com/business/story/2024-04-09/tesla-settles-lawsuit-over-mans-death-in-a-crash-involving-its-semi-autonomous-driving-software.

[14] "NTSB: Tesla Autopilot, Distracted Driver Caused Fatal Crash." AP News, May 1, 2021. https://apnews.com/article/us-news-ap-top-news-ca-state-wire-government-regulations-transportation-d03d88fca7ef389ffbe3469f50e36dcf.

their vehicles, or is it because of a misrepresentation by companies like Tesla about how advanced and self-sufficient their technology is?

Table 1. Driver-, Vehicle-, and Environment-Related Critical Reasons

Critical Reason Attributed to	Estimated	
	Number	Percentage* ± 95% conf. limits
Drivers	2,046,000	94% ±2.2%
Vehicles	44,000	2% ±0.7%
Environment	52,000	2% ±1.3%
Unknown Critical Reasons	47,000	2% ±1.4%
Total	2,189,000	100%

*Percentages are based on unrounded estimated frequencies
(Data Source: NMVCCS 2005–2007)

Figure 2. Critical Reasons for Crashes Investigated in the National Motor Vehicle Crash Causation Survey, February 2015.

Before discussing the relevant agencies and legislation passed to curtail potential harm that could arise from having self-driving cars on the road, it is important to note the cost-benefit analysis undertaken by those wishing to regulate self-driving cars. It can be easy to focus solely on the negative aspects of self-driving cars, as the concept itself may be described as dystopian and evidence of humanity's descent into overreliance on technology. One of the primary reasons for implementing autonomous cars is that it removes human mistakes and inadequacies from the equation of crashes. As seen in Figure 2, a study by the National Highway Traffic Safety Administration in 2015 showed that an overwhelming percentage, about 94%, of car crashes were caused by the drivers of the vehicles, as opposed to their vehicles, the environment, or other reasons. These reasons attributed to drivers were enumerated further as recognition error (driver's inattention), decision error (speeding), performance error (poor directional capability), and non-performance error (drowsiness from lack of sleep).[15] It makes logical sense then that removing human faultiness from driving would reduce the amount of car crashes and fatalities.

[15] Singh, S. "Critical Reasons for Crashes Investigated in the National Motor." National Highway Traffic Safety Administration, March 2018. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812506.

Vehicular crashes and fatalities would decrease with further implementation of Level 3 or higher automation. A substantial amount of car crashes can be attributed in part to alcoholic intoxication, "and roadway safety could improve exponentially when these impaired drivers cede control to fully self-driving automated vehicles. Eliminating up to a third of traffic deaths through vehicle automation just by limiting alcohol-impaired drivers would represent a dramatic improvement in roadway safety."[16]

One of the most glaring advantages of higher automation in vehicles is that it presents more transportation opportunities for those with limited mobility. Autonomous vehicles present a unique chance for those with disabilities to have a form of agency without actually having to operate the vehicles. For disabled and elderly people, "some benefits…include personal independence, reduction in social isolation, and access to essential services."[17] Another group that is currently detached from the benefits of private transportation is those in low-income communities. Increasing the number of autonomous vehicles in the transportation system "doubles the number of jobs accessible by car, provided the AVs are pooling passengers to increase average vehicle occupancy."[18] It can also be inferred that high transportation costs would be lowered, allowing residents of low-income neighborhoods to have greater access to employment opportunities while needing to allocate less funds for transportation costs. For many people, car ownership is not feasible, so a higher implementation of autonomous vehicles would provide a cost-effective alternative.

Fears of these advancements are often labeled today as irrational technophobia, but concerns regarding cybersecurity in autonomous vehicles are well-founded. If its cyber defenses are not strong enough, "an autonomous vehicle could crash because a third party hacks into the operating system and executes commands that cause a collision."[19] Most forms of hacking are detrimental and should be protected against, but cybersecurity regarding autonomous vehicles requires special consideration, given the fact that lives can be taken in a matter of seconds. Along with this fear, the driver's inaction also plays a prominent role in criticisms of these technologies.

[16]Anderson, James M., Nidhi Kalra, Karlyn D. Stanley, Paul Sorensen, Constantine Samaras, and Oluwatobi A. Oluwatola. "The Promise and Perils of Autonomous Vehicle Technology." In *Autonomous Vehicle Technology: A Guide for Policymakers*, 16. RAND Corporation, 2014. http://www.jstor.org/stable/10.7249/j.ctt5hhwgz.9.
[17] Ibid., 17.
[18] Ezike, Richard, Jeremy Martin, Katherine Catalano, and Jesse Cohn. "AVs Providing Access to Jobs." *Where Are Self-Driving Cars Taking Us?: Pivotal Choices That Will Shape DC's Transportation Future*. Union of Concerned Scientists, 2019. http://www.jstor.org/stable/resrep24063.7.
[19] Geistfeld, Mark A. "A Roadmap for Autonomous Vehicles: State Tort Liability, Automobile Insurance, and Federal Safety Regulation." *California Law Review* 105, no. 6 (2017): 1623. http://www.jstor.org/stable/44630767.

A major downside that is exemplified through the cases of Vasquez and Huang is an overreliance on technology by those who are in the driver's seat. Both Vasquez and Huang were using their phones at the time of the crash because they were under the impression that the car was able to maneuver without their control and attention properly. Car manufacturers and others have been outspoken about the danger that this ambiguous level of automation poses, as Volvo has noted, "Because the driver is theoretically freed up to work on e-mail or watch a video while the car drives itself, the company [Volvo] believes it is unrealistic to expect the driver to be ready to take over at a moment's notice and still have the car operate itself safely."[20] The seemingly autonomous vehicle lulls the driver into a false sense of security, but they must be vigilant if using such technology. If using any current Level 3 autonomy, it is imperative for drivers to be present, aware of their surroundings, and able to manually drive if anything were to go awry.

As further testing and research help to minimize and hopefully prevent any autonomous vehicle-related crashes, it is crucial/necessary that legislation ensures the safety of those driving in and amongst autonomous vehicles and that accurate information is provided regarding how "autonomous" these autonomous vehicles actually are. Current legislation includes the SELF DRIVE Act (Safely Ensuring Lives Future Deployment and Research In Vehicle Evolution Act), which focuses significantly on duties allocated to the Department of Transportation. The SELF DRIVE Act:

> establishes the federal role in ensuring the safety of highly automated vehicles by encouraging the testing and deployment of such vehicles…DOT must: (1) inform prospective buyers of highly automated vehicles of the capabilities and limitations of such vehicles; (2) establish the Highly Automated Vehicle Advisory Council to, among other things, develop guidance regarding mobility access for the disabled, elderly, and underserved populations; (3) require all new passenger motor vehicles less than 10,000 pounds to be equipped with a rear seat occupant alert system; and (4) research updated safety standards for motor vehicle headlamps.[21]

The first two objectives of the DOT are incredibly important to note. Firstly, proper information about the autonomy of autonomous vehicles ensures safety, and secondly, it is

[20] Kelley, Ben. "Public Health, Autonomous Automobiles, and the Rush to Market." *Journal of Public Health Policy* 38, no. 2 (2017): 172. http://www.jstor.org/stable/26155461.

[21] "H.R.3388 - 115th Congress (2017-2018): Safely Ensuring Lives Future Deployment and Research In Vehicle Evolution Act." September 7, 2017. https://www.congress.gov/bill/115th-congress/house-bill/3388.

imperative that autonomous vehicles reach those who would benefit from them and who need them the most.

The American Vision for Safer Transportation Through Advancement of Revolutionary Technologies (AV START) Act was a bipartisan piece of legislation that emphasized a need for coordination between local, state, and federal governments, as well as car manufacturers. The act required "manufacturers to submit safety evaluation reports to the Secretary of Transportation with information addressing important factors including safety, crashworthiness, and cybersecurity through documented testing, validation, and assessment."[22] It also placed a special emphasis on the need to enhance cybersecurity, as it said, "The Department of Commerce shall establish the HAV Data Access Advisory Committee to provide a forum to discuss and make policy recommendations with respect to the information or data that vehicles collect, generate, record, or store in an electronic form that is retrieved from an HAV or ADS."[23] The AV START Act also emphasized keeping consumers informed by being transparent about the capabilities and flaws of autonomous vehicles. The act additionally noted the need to open this technology to those with limited mobility by ensuring that people cannot be denied access to a license to operate self-driving vehicles because they are disabled.

Other proposed legislation regarding autonomous vehicles includes the SPY Car Acts of 2015 and 2017. These sought to increase the cybersecurity of autonomous vehicles and lobbied for different organizations to coordinate hacking mitigation and prevention.[24] Many states also passed individualized legislation regarding autonomous vehicles, with 22 states having done so since 2011. The National Highway Traffic Safety Administration (NHTSA) has notably produced little official regulation of autonomous vehicles. It has thus far "published what it called a policy framework for the development of automated driving systems, A Vision for Safety, which set forth its desired path toward putting self-driving vehicles on the roads."[25] Some may argue that this is merely an empty gesture and that more substantial efforts need to be made. Robert Molloy, the director of highway safety for the National Transportation Safety Board

[22] "Thune and Peters Introduce s. 1885, the AV Start Act." U.S. Senate Committee on Commerce, Science, & Transportation, September 28, 2017.
https://www.commerce.senate.gov/2017/9/thune-and-peters-introduce-s-1885-the-av-start-act.
[23] S.1885 - 115th Congress (2017-2018): AV Start Act | congress.gov | Library of Congress.
https://www.congress.gov/bill/115th-congress/senate-bill/1885.
[24] Watney, Caleb, and Cyril Draffin. "ADDRESSING NEW CHALLENGES IN AUTOMOTIVE CYBERSECURITY." R Street Institute, 2017. http://www.jstor.org/stable/resrep19133.
[25] Barkenbus, Jack. "Self-Driving Cars: How Soon Is Soon Enough?" *Issues in Science and Technology* 34, no. 4 (2018): 24. https://www.jstor.org/stable/26597985.

(NTSB), said, "The NHTSA is taking a hands-off approach to regulating new automated driving systems like Autopilot. Molloy called the approach 'misguided,' and said nothing is more disappointing than seeing recommendations ignored by Tesla and NHTSA."[26]

It is evident that the autonomous cars that strike someone in an accident cannot be held in court and tried themselves, but which humans should be held accountable for the crimes committed by these vehicles? Although in cases like Vasquez's, it was the person in the vehicle who faced charges, the manufacturers have to be sure to avoid liability in a myriad of ways. They must

> take all reasonable steps proportionate to the risk to reduce foreseeable risks of harm. In most instances, this means that manufacturers must do the following: exercise reasonable care to eliminate from their products all substantial dangers that can reasonably be designed away; warn consumers about all substantial hidden dangers that remain; manufacture their products in such a way as to minimize dangerous flaws; and be careful to avoid misrepresenting the safety of their products.[27]

Do car manufacturers strictly follow these rules? It seems not, especially with regard to the misrepresentation of their products. Tesla was accused by the California Department of Motor Vehicles in 2022 of false advertising over autonomous features in their vehicles. The complaint by the DMV said, "Instead of simply identifying product or brand names, these 'Autopilot' and 'Full Self-Driving Capability' labels and descriptions represent that vehicles equipped with the ADAS features will operate as an autonomous vehicle, but vehicles equipped with those ADAS features could not at the time of those advertisements, and cannot now, operate as autonomous vehicles."[28] Labels and claims by Tesla imply a higher level of autonomy than is provided, which leads the driver to be less engaged in the road and, in turn, their own safety. Tesla refuted the case by the DMV by invoking their First Amendment right to freedom of speech, as its lawyers claim, "These statutes and regulations, as applied to Tesla in this

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[26] "NTSB: Tesla Autopilot, Distracted Driver Caused Fatal Crash." AP News, May 1, 2021.
[27] Gless, Sabine, Emily Silverman, and Thomas Weigend. "IF ROBOTS CAUSE HARM, WHO IS TO BLAME? SELF-DRIVING CARS AND CRIMINAL LIABILITY." *New Criminal Law Review: An International and Interdisciplinary Journal* 19, no. 3 (2016): 429. https://www.jstor.org/stable/26417695.
[28] Claburn, Thomas. "California Accuses Tesla of False Advertising over Autopilot." The Register, August 8, 2022. https://www.theregister.com/2022/08/08/tesla_california_autopilot/.

proceeding, are unconstitutional…as they impermissibly restrict Tesla's truthful and non-misleading speech about its vehicles and their features."[29]

Drivers are currently subject to convictions of negligent injury or homicide if such incidents occur under their watch. Some argue that they naturally assume the risks associated with autonomous vehicles when they decide to activate self-driving technology. Others believe that subjecting drivers to charges of negligence is self-defeating and merely imposes roadblocks to the implementation of autonomous vehicles in the general public. The recognition of the magnitude and transformative nature of autonomous vehicles is accompanied by a need to "raise the requirements for criminal negligence liability, lest the risk of punishment inhibit the further development and use of robots."[30] It becomes a matter of what is more important: allowing autonomous vehicles to reach the disabled and the poor or punishing those who failed to intervene and stop the mistake of the machine.

Questions arise about whether current legislation is enough to handle the liability issues that can arise, as some believe that current "[p]roducts liability law is capable of handling the advent of autonomous vehicles just as it handled seatbelts, airbags, and cruise control."[31] It is interesting to note that this prediction about the extent of previous liability law was made before many of the cases involved self-driving cars crashing. Theories made by similar scholars at the time were eerily accurate, as one said, "[E]arly claims likely will resemble contemporary lawsuits that allege negligence vehicle use."[32] Proponents of new legislation emphasize the overall lack of agency that passengers have when relegating control to self-driving cars, as it simply does not make sense to place the onus on someone who was not operating the vehicle. With regard to this conundrum, former prosecutor Jeff Rabkin said, "If a passenger has no way to operate the vehicle, prosecuting the passenger would not serve any of the purposes of criminal law."[33] The manner in which those who are negatively affected by these vehicles can gain relief is also extremely complicated, as proceedings involving negligence could involve not only those

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[29] Vigliarolo, Brandon. "Cali Autopilot Case Violates Free Speech Rights, Says Tesla." The Register, December 11, 2023. https://www.theregister.com/2023/12/11/tesla_california_autopilot_lawsuit/.
[30] Gless, Sabine, Emily Silverman, and Thomas Weigend. "IF ROBOTS CAUSE HARM, WHO IS TO BLAME? SELF-DRIVING CARS AND CRIMINAL LIABILITY."
[31] Brodsky, Jessica S. "Autonomous Vehicle Regulation: How an Uncertain Legal Landscape May Hit the Brakes On Self-Driving Cars." *Berkeley Technology Law Journal* 31, no. 2 (2016): 860. https://www.jstor.org/stable/26377774.
[32] Brodsky, Jessica S. "Autonomous Vehicle Regulation: How an Uncertain Legal Landscape May Hit the Brakes On Self-Driving Cars."
[33] Seidenberg, Steven. "Behind the Wheel: Who's to Blame When Self-Driving Cars Crash?" *ABA Journal* 103, no. 7 (2017): 19. https://www.jstor.org/stable/26515997.

who made the software but also those who manufactured the car. It is also necessary for the parties to determine the exact moment of system failure that was the inciting incident, which would require more time and money allocated to the proceedings. Commenting on this perversion of justice, Wayne R. Cohen, founder and managing partner at Cohen & Cohen, said, "It will be difficult to accommodate driverless vehicles under the current common-law framework. We will need a new statutory scheme because otherwise, it will be too costly for individuals to prosecute [tort] claims."[34]

Some argue that liability in such a manner should not apply to this circumstance at all and that absolving the aspect of risk would better benefit society as a whole. In such a model, if an autonomous vehicle "deviates from what was expected, the harm caused by such (generally foreseeable) aberrations would be attributed to 'society,' which agrees to accept certain residual risks necessarily associated with the employment of Intelligent Agents. The person harmed by such malfunctioning would consequently be regarded as a victim of a socially accepted risk, not as a victim of the negligent wrongdoing of any particular person."[35] This method would promote innovation to a higher degree and would free developers' minds from tedious legal battles. Its efficacy lies in a debate of whether the benefits of implementing these vehicles without roadblocks would outweigh the potential obstruction of justice that would ensue if victims could not get relief for accidents caused by autonomous vehicles.

Although once a mere work of fiction, self-driving cars are now a reality and a reality that needs to be properly regulated by legislation. The creation of these vehicles showed immense collaboration between different sectors, including academia, corporations, and the government. This same spirit of cooperation is necessary in order to acclimate self-driving cars to the normal driving environment, as governmental agencies and corporations need to prioritize the safety of passengers and pedestrians. Self-driving cars present many potential benefits to disabled people and low-income communities, as well as many risks regarding cybersecurity and misconceptions about how much attention is necessary. Correct notions about autonomy and proper regulations surrounding autonomous vehicle testing are necessary to transition this revolutionary technology into our society. Autonomous cars present a turning point in the landscape of driving, where those who were previously barred from participating now have a

[34] Ibid.
[35] Gless, Sabine, Emily Silverman, and Thomas Weigend. "IF ROBOTS CAUSE HARM, WHO IS TO BLAME? SELF-DRIVING CARS AND CRIMINAL LIABILITY."

chance to join. It is crucial that these vehicles are eased into society in a manner that is safe for all those involved and in a way that is truthful about the way in which these vehicles operate.