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CONTENTS

ARTICLES

- CROSSING THE RUBICON:
UNDERSTANDING KEY COMPLEXITIES OF
CONTEMPORARY U.S. IMMIGRATION LAW
- Robert Steinbuch* 1
- PUT EVEN MORE WOMEN AND MINORITIES IN CHARGE
- Peter H. Huang* 46

STUDENT NOTES

- DIVERSITY IN AUTOMATION:
HOW ARE DIFFERENT LEGAL REGIMES LOOKING TO REGULATE
USERS OF AUTOMATED VEHICLES?
- Lucas Barnard* 71
- PREDATORY MICROTRANSACTION REGULATIONS:
AN INTERNATIONAL COMPARISON
- Matt Hardy* 109

SOUTH CAROLINA JOURNAL OF INTERNATIONAL LAW & BUSINESS

VOLUME 17

2020-2021

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**CROSSING THE RUBICON:
UNDERSTANDING KEY COMPLEXITIES OF
CONTEMPORARY U.S. IMMIGRATION LAW**

*Robert Steinbuch**

I.	INTRODUCTION.....	3
II.	UNDOCUMENTED IMMIGRATION	6
	<i>A. FLORES AND ITS EFFECT ON FAMILY SEPARATION</i>	8
	<i>B. FLORES TODAY</i>	17
	<i>C. PROSECUTORIAL DISCRETION</i>	18
	<i>D. ASYLUM CLAIMS</i>	28
III.	THE COSTS OF IMMIGRATION	30
	<i>A. ECONOMIC COSTS</i>	31
	1. Tax Contributions.....	31
	2. Education Costs.....	36
	3. Medicaid and Other Welfare Costs	37
	<i>B. SOCIAL COSTS</i>	39

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1. Driver Licenses	39
2. Employment-Related Law.....	46
IV. CONCLUSION.....	49

I. INTRODUCTION

Immigration law is often an emotional topic, too often quickly leading to acrimony notwithstanding that the sentiment behind a generous immigration policy represents one of the highest moral ideals that the citizens and government of this country can embody. Indeed, the American munificence towards foreigners and refugees affected me greatly.¹ Following World War II, my father and his

¹ Then-Senator Mike DeWine described my family's history on the floor of the Senate as follows:

After six million Jews were murdered in World War II, surviving Jews from across Europe and Asia made the trek to the holy land. They sought their homeland and peace. They obtained the former, but not the latter. One such man seeking a homeland and peace was Mark Steinbuch, the late father of one of my Judiciary staffers, Robert Steinbuch. Born in Poland, Mark and his family lived under Nazi occupation, relocated to Siberia shortly after the start of World War II, and then traveled for two weeks by cattle car to live in Soviet Kazakhstan. [His] extended family faced some horrific challenges. Many were killed by the Nazis. His cousins—the Hershenfis family—were forced into labor in the Pionki ghetto in Poland. In 1941, the family was shipped off to Auschwitz. Hanna and her brother Harry were separated from each other and from their parents Fay and Harvey. Fay and Harvey never made it out of the death camp. Hanna, tattooed with the number A14699, was shipped to an intermediate camp and then Bergen-Belsen. Harry—B416 to the Nazis—worked hard labor in Auschwitz for four years and in 1944 was sent to another camp called Mauthausen. On May 3, 1945, the Nazis fled the camp. That night the skies opened and sent down a rainfall as if the world was being cleansed from the horrors that it had seen. The next morning, the Americans arrived and the 11th Armored Division liberated the camp. Three days later, Harry turned 26. After five weeks in an American hospital, Harry spent the next three years in a displaced persons camp in Austria. In 1949, Harry's wishes were answered, and he set off for America. Four years later, when Hanna also came to the United States, the siblings were reunited for the first time since they were shipped

family fled to the Americans in Germany, who were there rebuilding Germany and managing displaced persons. My family immigrated to Israel while it was a mandate of Great Britain, and eventually moved to the United States and became citizens; as such, I truly appreciate, understand and empathize when persecuted people flee for America.² While my father was never in a concentration camp, other family members tragically were.³

The enduring question that the controversial debate over immigration has still failed to answer is: what are and what should be the limits to our ideals and how should we enforce those limits, whatever they may be?⁴ Evaluating all of the complexities of

off to Auschwitz 13 years prior. . . . Upon the defeat of the Nazis, [my father's] immediate family went to Germany, because, as [he] described it, "that is where the Americans were, and *if you wanted to live, you went to the Americans.*" From there, Mark joined the Zionist Youth Movement and set off for Israel. That, however, was no easy task. Traveling across Europe, often on foot to a southern port, he, his brother, and many others like them boarded an overloaded freighter renamed the Theodore Hertzl after the founder of Zionist Movement. Upon the ship's arrival in Israel, the British quickly arrested its passengers and sent them to a holding camp in Cyprus. Months later, Mark and the others were allowed to enter Israel. Upon the joyous declaration of independence, seven Arab nations invaded Israel and Mark quickly joined the Army. Under-aged and flatfooted, he fought for the independence of this nascent democracy. Mark's story is by no means unique. It not only represented the goals and desires of the Jews of post-war Europe, but the dreams of a nation of people dispersed from their homeland for millennia.

Statement of Senator Mike DeWine (R. OH) on Israeli Independence Day, May 12, 2015, <https://votesmart.org/public-statement/95133/floor-statement-israeli-independence#.XTHAEzdOkwD> (last visited Dec. 4, 2021).

² *Id.*

³ See Robert Steinbuch, *3 Common Arguments for Overlooking Illegal Immigration That Don't Hold Water*, THE FEDERALIST (July 24, 2019), <https://thefederalist.com/2019/07/24/3-common-arguments-overlooking-illegal-immigration-dont-hold-water/> (last visited Dec. 4, 2021).

⁴ *Id.*

immigration law in the United States, even if possible, would be a daunting task indeed—one well beyond the capacity of any article.

Instead, I seek to address two issues that have permeated the more-recent debate on immigration, with the hope of providing some necessary background and analysis of these questions. The goal is not to solve the immigration crisis, but rather to help cabin the discussion in an historical and analytical framework. As such, I intend to focus on two issues:

- (1) understanding how and why we wound up where we are regarding family separation and the treatment of unaccompanied minors, and
- (2) fairly measuring and analyzing the impact of certain costs of immigration, both monetary and social.

I seek to analyze some of the legal challenges, as well as the policy arguments, on both sides of these topics with the hope that the information will aid in engaging with these matters in an informed and clear-headed fashion.

II. UNDOCUMENTED IMMIGRATION

There are three main ways a person can become an undocumented immigrant.⁵ One is by entering the country legally with a legitimate visa but staying past that visa's expiration.⁶ Between 30%–50% of undocumented immigrants each year enter the country this way.⁷ Another, and the least common of the three

⁵ See *3 of the Most Common Ways People Migrate Illegally*, POZO GOLDSTEIN, LLP ATTORNEYS AT LAW (May 07, 2017), <https://www.pozogoldsteinny.com/illegal-immigration/>; see also *Modes of Entry for the Unauthorized Migrant Population*, PEW RESEARCH CENTER (May 22, 2006) <https://www.pewresearch.org/hispanic/2006/05/22/modes-of-entry-for-the-unauthorized-migrant-population/> (last visited Dec. 4, 2021).

⁶ *Id.*

⁷ *Id.*; see also *Modes of Entry for the Unauthorized Migrant Population*, *supra* note 5 (putting the estimate at forty to fifty percent in 2006).

methods of undocumented immigration, is for an immigrant to stay past the expiration of his or her border-crossing card.⁸ Unlike a visa, which authorizes entry to the United States for a specified length of stay, a border-crossing card allows the holder to cross the border at will for a certain number of years, typically ten.⁹ The third and most controversial way an undocumented immigrant can enter the country is through unauthorized entry—i.e., crossing the border without entering through a checkpoint.¹⁰ Though exact estimates are difficult, it seems that a little over half of the undocumented immigrants residing in the United States entered through the latter method.¹¹ Needless to say, in addition to this being the most controversial method of entry, it has also presented the greatest difficulty in dealing with immigration policy.

A. *Flores and its Effect on Family Separation*

Perhaps the greatest controversy in immigration policy has surrounded the separation of families at the border.¹² This separation is largely due to a court-enforced settlement known as the *Flores* Settlement,¹³ which was, ironically, intended to safeguard

⁸ See 3 of the *Most Common Ways People Migrate Illegally*, *supra* note 5.

⁹ *Id.*

¹⁰ *Id.*

¹¹ See 3 of the *Most Common Ways People Migrate Illegally*, *supra* note 5 (“In 2016, the illegal immigrant population in America amounted to almost 11 million people . . . [e]ach year, an estimated 500,000 people enter the country illegally, accounting for about 6.5 million of the undocumented immigrants currently residing in the United States.”); see also *Modes of Entry for the Unauthorized Migrant Population*, *supra* note 5 (in 2006 it was estimated that “somewhat more than half [of the illegal immigrant population in the US] entered the country illegally.”).

¹² See Carrie F. Cordero, Heidi L. Feldman, & Chimène I. Keitner, *The Law Against Family Separation*, 51 COLUM. HUMAN RIGHTS L. REV. 432 (2020); see also Stephen Lee, *Family Separation as Slow Death*, 119 COLUM. L. REV. 2319 (2019).

¹³ See generally Stipulated Settlement Agreement, *Flores v. Reno*, No. CV 85-4544-RJK(Px) (C.D. Cal. Jan. 17, 1997), <https://www.hsgac.senate.gov/imo/media/doc/2018.08.15%20PSI%20UAC%20Report%20Appendix.pdf>.

immigrant children; of course, the results did not match the intentions of the settlement.¹⁴ An understanding of the history and effects of the *Flores* Settlement is essential in dealing with the ongoing issue of family separation.

While some family separations cannot be avoided,¹⁵ i.e., when some family members receive deportation orders but others do not, this is not the primary controversy.¹⁶ The enduring images that stained the news showed families being separated upon crossing the border and the poor conditions under which the children of these families were kept. This produces both a bad outcome and bad optics for our nation.¹⁷ The far more acceptable approach, we generally recognize, is that family units apprehended together entering the country could, and should, be kept together while asylum or removal proceedings are pending. Unfortunately, the *Flores* Settlement makes that legally impossible.¹⁸ Understanding this perverse outcome requires an examination of the events leading up to, as well as the contents of, the *Flores* Settlement.

The controversy began in 1984 when, in response to an influx of unaccompanied minor-aged children crossing the southern border, the Immigration and Naturalization Service (INS) declared that these unaccompanied minors could only be released to a “parent or lawful guardian” in order to best protect the wellbeing of the children.¹⁹ This rule became the focal point of Jenny Flores’s eponymous class action suit brought by immigration activists in

¹⁴ Sarah Herman Peck & Ben Harrington, *The “Flores Settlement” and Alien Families Apprehended at the U.S. Border: Frequently Asked Questions*, CONGRESSIONAL RESEARCH SERVICE, 9 (upd. 2018), <https://fas.org/sgp/crs/homsec/R45297.pdf> (last visited Dec. 4, 2021).

¹⁵ Steinbuch, *supra* note 3.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ Matthew Sussis, *History of The Flores Settlement*, CENTER FOR IMMIGRATION STUDIES (Feb. 11, 2019), <https://cis.org/Report/History-Flores-Settlement> (last visited Dec. 4, 2021).

¹⁹ Peck & Harrington, *supra* note 14, at 6.

1985.²⁰ The petitioners argued for the release of the detained minors to other “responsible adults” when their “parent or legal guardian fails to personally appear to take custody of them” and for better conditions in border detention facilities where the children awaited their judicial proceedings if there was no suitable adult to receive them.²¹ The suit came before the Supreme Court of the United States in 1993 after a nearly decade-long battle.²² The Supreme Court remanded the case to the District Court to the Central District

²⁰ See *Reno v. Flores*, 507 U.S. 292, 296 (1993). See also Peck & Harrington, *supra* note 14, at 6. Jenny Flores was the daughter of an illegal immigrant. The mother could not pick up Jenny herself because she feared her own deportation. Matthew Sussis, *History of The Flores Settlement*, CENTER FOR IMMIGRATION STUDIES (Feb. 11, 2019), <https://cis.org/Report/History-Flores-Settlement> (citing *The History Of The Flores Settlement And Its Effects On Immigration*, NPR (June 22, 2018)). Instead, the family wanted cousins to pick up Jenny. *Id.* INS would not allow release to the cousins because they were not Jenny’s legal guardians. *Id.* The mother’s employer was a Hollywood actor and notified an immigration attorney on behalf of Jenny. *Id.*

²¹ Peck & Harrington, *supra* note 14, at 6; *Flores*, 507 U.S. at 296.

²² Peck & Harrington, *supra* note 14, at 6-7. When the suit was first litigated in district court, the court granted INS summary judgment on many of the plaintiffs’ claims. *Flores*, 507 U.S. at 296. However, it granted the plaintiffs summary judgment on their equal protection claim since INS allowed minors in exclusion proceedings to be released to any relative or friend while requiring minors in deportation proceedings to be released only to a parent or guardian. *Id.* Following the district court finding, INS instituted a national policy allowing minors in both exclusion and deportation proceedings to be released to a parent, legal guardian, or other family member. *Id.* at 296-98. Flores continued with litigation even under this new rule. *Id.* at 298. Only a week after the rule was in effect, the district court ruled in favor of Flores, vaguely citing due process concerns, and issued an order that largely invalidated the new regulation. *Id.* 298-99. The Court of Appeals three judge panel reversed the district court’s decision, but that holding was short lived. *Id.* at 299. The Ninth Circuit voted to rehear the case, and an eleven-judge panel “affirmed the District Court Order in all respects.” *Id.*

of California, where the parties stipulated to the “*Flores* Settlement.”²³

The *Flores* Settlement laid out the national policy for the detention and release of unaccompanied minors in custody at border-detention facilities, scrapping any existing INS policy inconsistent with the Settlement.²⁴ Addressing confinement conditions, the Settlement detailed amenities and accommodations that the government must provide to minors, while also establishing guidelines for respectful treatment of minors, including protocols to protect minors’ dignity.²⁵ The INS was required to move newly apprehended minors from the initial holding facility to a licensed care facility within three days if they were apprehended “in an INS district in which a licensed program is located,” and five days if they were not.²⁶ The time limit on placement could be extended in times

²³ Peck & Harrington, *supra* note 14, at 7. The parties expressed concern about the length and cost of moving forward with litigation, and the parties stated they both felt the settlement was in the best interest of justice. Stipulated Settlement Agreement, *supra* note 13, at 1-2.

²⁴ Stipulated Settlement Agreement, *supra* note 13, at 1-3; Peck & Harrington, *supra* note 14, at 7.

²⁵ “Facilities will provide access to toilets and sinks, drinking water and food as appropriate, medical assistance if the minor is in need of emergency services, adequate temperature control and ventilation, adequate supervision to protect minors from others, and contact with family members who were arrested with the minor.” Stipulated Settlement Agreement, *supra* note 13, at 4. In addition to maintaining the minor’s dignity, INS was also required to be respectful of that minor’s particular vulnerabilities. Stipulated Settlement Agreement, *Id.* at 4, 18.

²⁶ Stipulated Settlement Agreement, *supra* note 13, at 4-5. The settlement defined “licensed care facility” as “any program, agency or organization that is licensed by an appropriate State agency to provide residential, group, or foster care services for dependent children, including a program operating group homes, foster homes, or facilities for special needs minors.” *Id.* at 2.

of an influx of unaccompanied minors, so long as the transfer occurred as “expeditiously as possible.”²⁷

Importantly, if the minors were not a danger to themselves or others, and there was no danger of them not showing up to their immigration hearing, they had to be released to a family member, legal guardian, or individual designated by the family, notwithstanding that the adult family members with whom they entered the country might still be subject to detention.²⁸ If the minors were a danger or a flight risk, then they stayed in one of the previously mentioned licensed-care programs until their proceedings were finished or until they were no longer a danger or a flight risk.²⁹ The INS had legal custody of all minors in INS facilities.³⁰

The theme of the *Flores* Settlement is that minor-aged children should be “in the least restrictive setting appropriate for the minor’s age and special needs.”³¹ The overarching idea was that children were to be reunited with their families, and if that was not achievable, they were to be treated with the utmost humane care while awaiting a hearing.³²

The parties to the *Flores* Settlement intended the settlement to be temporary, binding only until legislation was passed to

²⁷ *Id.* at 5. (“[I]n the event of an emergency or influx of minors into the United States, in which case the INS shall place all minors pursuant to Paragraph 19 as expeditiously as possible...”). The settlement defines an influx as “those circumstances where the INS has, at any given time, more than 130 minors eligible for placement in a licensed program under Paragraph 19, including those who have been so placed or are awaiting such placement.” *Id.*; Peck & Harrington, *supra* note 14, at 7 (summarizing the circumstances warranting an exception).

²⁸ Stipulated Settlement Agreement, *supra* note 13, at 6.

²⁹ *Id.* at 7.

³⁰ *Id.*

³¹ *Id.* at 18.

³² See Peck & Harrington, *supra* note 14, at 7.

implement it.³³ Until that time, the district court was charged with overseeing that the Settlement was carried out.³⁴ Congress did implement some, but not all, of the *Flores* Settlement under the Homeland Security Act (HSA) in 2002 and Trafficking Victims Protection Reauthorization Act (TVRPA) in 2008.³⁵ The HSA abolished the INS and replaced it with the Department of Homeland Security (DHS), transferring responsibilities related to the care and custody of unaccompanied minors from INS to the Office of Refugee Resettlement (ORR).³⁶ The ORR was charged with collaborating with other agencies to place the child according to his or her best interest.³⁷ In 2008, the TVRPA addressed the treatment of unaccompanied minors and gave ORR further responsibilities with regards to minors' placement and treatment.³⁸ Aligned with the *Flores* Settlement, the TVRPA acknowledged that the ORR must place the minor in the least restrictive setting possible.³⁹ Also, pursuant to the *Flores* Settlement, the TVRPA required that the minor go with a suitable guardian or, if none is available, to a specialized facility.⁴⁰ However, because these laws did not

³³ Originally, the settlement was to terminate either five years after it was approved or three years after INS came into "substantial compliance," whichever was sooner. Stipulated Settlement Agreement, *supra* note 13, at 14. In 2001, the parties agreed that the settlement would remain in effect until forty-five days after the government published final regulations pursuant to the Settlement. *Flores v. Sessions*, 862 F.3d 863, 869 (9th Cir. 2017). Peck & Harrington, *supra* note 14, at 6. (explaining that the settlement was still in effect and that a district court judge in California presided over the settlement).

³⁴ Peck & Harrington, *supra* note 14, at 1.

³⁵ *Id.* at 5–6; *Flores*, 862 F.3d at 870–71.

³⁶ See Peck & Harrington, *supra* note 14, at 5. *Flores*, 862 F.3d at 870 (citing 6 U.S.C. §§ 111, 251, 291, then citing 6 U.S.C. § 279(a), (b)(1)(A), (g)(2)).

³⁷ *Flores*, 862 F.3d at 870 (citing 6 U.S.C. § 279(b)(1)(B)).

³⁸ Peck & Harrington, *supra* note 14, at 5; *Flores*, 862 F.3d at 871 (citing first *Flores v. Lynch*, 828 F.3d at 904, then citing 8 U.S.C. § 1232 (b)(1)).

³⁹ Peck & Harrington, *supra* note 14, at 5; *Flores*, 862 F.3d at 871 (citing 8 U.S.C. § 1232(b)(3)).

⁴⁰ *Id.*

implement all aspects of the *Flores* Settlement, parts of the original Settlement were still binding to all minor detainees.⁴¹

Beginning in 2014, apprehensions at the southern border increased, bringing the *Flores* Settlement back into the spotlight.⁴² In 2016, the Ninth Circuit Court of Appeals found that the *Flores* Settlement applied to both accompanied and unaccompanied minors.⁴³ This was after the passage of the HSA and TVRPA, which only addressed unaccompanied minors.⁴⁴ Thus, the original *Flores* Settlement still governs the handling of accompanied minors while only parts of the original settlement govern unaccompanied minors.⁴⁵

Because there has been no further legislation or amendment to the Settlement, there are now only two ways to process a minor crossing into the United States at the southern border, all depending on whether the child is accompanied or unaccompanied.⁴⁶ Notably, both processes are a present-day basis for separation at the southern border when a family unit crosses with minor children.

When a family unit crosses the southern border with a minor child, that child is considered accompanied for the purpose of

⁴¹ *Flores*, 862 F.3d at 870-71.

⁴² U.S. CUSTOMS AND BORDER PROTECTION, *U.S. Border Patrol Total Monthly UAC Apprehensions by Sector (FY 2010 - FY 2019)*, (Jan. 2020) (showing that apprehensions of unaccompanied minors at the southern border increased from 38,759 in FY 2013 to 68,541 in FY 2014. The numbers for FY 2013 were already a part of an upward trend in unaccompanied minors, but it was FY 2014 where that number skyrocketed. Though subsequent years have fluctuated widely, as of FY 2019 the numbers have never gone below those for FY 2013).

⁴³ *Flores v. Lynch*, 828 F.3d 898, 901 (9th Cir. 2016). See also Alex Nowrasteh, *DECLINING DEPORTATION AND INCREASING CRIMINAL ALIEN RELEASES*, CATO INSTITUTE (May 19, 2016) (reporting in 2016 that unaccompanied minors crossing the southern border reached a peak in 2014 making up 14% of the apprehensions that year); Peck & Harrington, *supra* note 14, at 14 (citing *Lynch* when calling 2014 a “migrant crisis”).

⁴⁴ Peck & Harrington, *supra* note 14, at 8.

⁴⁵ *Id.*

⁴⁶ Peck & Harrington, *supra* note 14, at 8. See also *Ms. L v. U.S. Immigr. & Customs Enf’t*, 310 F.Supp.3d 1133, 1139 (9th Cir. 2018).

processing the minor.⁴⁷ However, there are three ways for an accompanied minor to become unaccompanied: (1) if the DHS cannot determine if the minor and adults are actually related, (2) if the DHS determines the minor is at risk if he or she stays with the adult, and (3) if the adult is referred for criminal prosecution.⁴⁸ If any of these three events takes place, the now-unaccompanied minor must be transferred within seventy-two hours of apprehension to the HHS pursuant to the TVPRA.⁴⁹

Alternatively, if the minor remains accompanied and the family unit is detained together, the clock begins to tick on when the minor must transfer to a licensed facility, pursuant to the *Flores* Settlement.⁵⁰ The *Flores* Settlement exception allowing for a longer period before transfer during times of influx is currently in effect, and the judge presiding over the Settlement has ruled that approximately twenty days is the maximum amount of time the minor can remain in an unlicensed facility.⁵¹ Therefore, if the family proceedings take longer than twenty days, as they commonly do, the child must be transferred.⁵² Families are consequently separated because there are currently no licensed facilities that can hold families, preventing the family from being transferred together.⁵³

The *Flores* Settlement does not protect against family separation. While the Ninth Circuit Court of Appeals ruled in 2016 that, by the plain language of the Settlement, it applies to accompanied minors as well as unaccompanied minors, the court

⁴⁷ Peck & Harrington, *supra* note 14, at 8.

⁴⁸ U.S. DEPARTMENT OF HOMELAND SECURITY, MYTH VS. FACT: DHS ZERO-TOLERANCE POLICY (June 18, 2018).

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ MYTH VS. FACT, *supra* note 48; Peck & Harrington, *supra* note 14, at 9. See also *supra* note 26 (describing how the *Flores* Settlement defines “licensed care facility.”)

⁵² MYTH VS. FACT, *supra* note 48. (noting that the alternative to transfer is release.)

⁵³ *Id.* (Noting also that the alternative is to release the entire family); Peck & Harrington, *supra* note 14, at 12–13.

refused to recognize any rights for accompanied minors' parents implied in the Settlement.⁵⁴ Even though the *Flores* Settlement makes release to a parent the first choice for a minor, juveniles who were detained with their parents can be released without their parents.⁵⁵ In the court's words, "the fact that the Settlement grants [minors] a right to preferential release to a parent over others does not mean that the government must also make a parent available; it simply means that, if available, a parent is the first choice."⁵⁶ Thus, the ruling that the *Flores* Settlement applies to accompanied minors did nothing to mitigate family separation.

B. FLORES TODAY

On April 6, 2018, then-Attorney General Jeff Sessions announced that the United States would be invoking a "zero tolerance policy":

I have put in place a "zero tolerance" policy for illegal entry on our Southwest border. If you cross this border unlawfully, then we will prosecute you. It's that simple. If you smuggle illegal aliens across our border, then we will prosecute you. If you are smuggling a child, then we will prosecute you and that child will be separated from you as required by law. If you make false statements to an immigration officer or file a fraudulent asylum claim, that's a felony. If you help others to do so, that's a felony, too. You're going to jail. So if you're going to come to this country, come here legally. Don't come here illegally.⁵⁷

Because the policy called for immediate prosecution, any family unit with minor children crossing the border illegally was separated within seventy-two hours pursuant to the TVPRA, because the minor was considered unaccompanied as soon as the

⁵⁴ *Lynch*, 828 F.3d at 905–08 (9th Cir. 2016).

⁵⁵ *Id.* at 908–09.

⁵⁶ *Id.* at 908.

⁵⁷ Press Release 18-417, Department of Justice Office of Public Affairs, Attorney General Announces Zero-Tolerance Policy for Criminal Illegal Entry, (Apr. 6, 2018); Peck & Harrington, *supra* note 14, at 11.

parents were prosecuted.⁵⁸ Further, if the family crossed legally claiming, for example, asylum, and the family still had to await judicial proceedings regarding their claim, when the waiting period exceeded twenty days, families either had to be separated or the family released in its entirety.⁵⁹

The massive family separation caused such intense political uproar that on June 20, 2018, President Donald Trump signed an Executive Order (EO) requiring family units to stay together during prosecution proceedings to the “extent permitted by law.”⁶⁰ To avoid family separation or the alternative of releasing the entire family, on June 21, 2018, the Trump administration filed an Application for Relief from the *Flores* Settlement.⁶¹ However, the Ninth Circuit held the EO did not go far enough, and on June 26, 2018, in *Ms. L v. ICE*, the judge granted an injunction that required families to stay together and all separated families be reunited.⁶² Further, the court did not allow the administration to hold the minor children together with their families for the entirety of the prosecutorial proceedings because that would not comply with the *Flores* Settlement.⁶³ On July 9, 2018, the application for relief was denied.⁶⁴

C. PROSECUTORIAL DISCRETION

The Obama administration previously sought to mitigate family separation for family units already in the country by only removing immigrants convicted of a violent crime when it replaced Secure Communities (S-COMM) with the Priority Enforcement Program

⁵⁸ Peck & Harrington, *supra* note 14, at 12; MYTH VS. FACT, *supra* note 48.

⁵⁹ MYTH VS. FACT, *supra* note 58.

⁶⁰ Peck & Harrington, *supra* note 14, at 11; *Ms. L. v. ICE*, 310 F. Supp. 3d 1140, 1140 (S.D. Cal. 2018).

⁶¹ *Id.* at 13.

⁶² Peck & Harrington, *supra* note 14, at 10; *Ms. L.*, 310 F. Supp. 3d at 1149.

⁶³ *Id.* at 10.

⁶⁴ *Id.* at 13.

(PEP).⁶⁵ When establishing the prioritization program, Jeh Johnson, then-DHS Secretary, explained that the program affected immigration policy across the board, including the discretion used to decide whether and how to apprehend, detain, and remove illegal aliens.⁶⁶ Johnson explained that the policy should apply not only to the decision to issue, serve, file, or cancel a Notice to Appear, but also to a broad range of other discretionary enforcement decisions, including deciding: (i) who to stop, question, and arrest; (ii) who to detain or release; (iii) whether to settle, dismiss, appeal, or join in a motion on a case; and (iv) whether to grant deferred action, parole, or a stay of removal instead of pursuing removal in a case.⁶⁷ Johnson went on to describe the three levels of the prioritization program.⁶⁸ The policy mandated the non-enforcement of certain

⁶⁵ The primary goal of S-COMM was “to identify and process *all* criminal aliens amendable for removal *while in federal, state and local custody*.” Jessica Vaughn, *Public Safety Impact of Obama Administration’s Priority Enforcement Program*, CENTER FOR IMMIGRATION STUDIES (Mar. 31, 2016), <https://cis.org/Public-Safety-Impact-Obama-Administrations-Priority-Enforcement-Program> (quoting U.S. Immigration and Customs Enforcement, “1st Quarterly Status Report (Apr.-June 2008) for Secure Communities: A Comprehensive Plan to Identify and Remove Criminal Aliens” (Aug. 2008). However, the Secretary summed up the transition to PEP by stating, “unless the alien poses a demonstrable risk to national security, enforcement actions through the new program will only be taken against aliens who are convicted of specifically enumerated crimes.” Jeh Johnson, *Memorandum for Secure Communities*, DEP’T OF HOMELAND SEC. (Nov. 20, 2014), https://www.dhs.gov/sites/default/files/publications/14_1120_memo_secure_communities.pdf.

⁶⁶ Jeh Johnson, *Policies for the Apprehension, Detention and Removal of Undocumented Immigrants*, DEP’T OF HOMELAND SEC. (Nov. 20, 2014), https://www.dhs.gov/sites/default/files/publications/14_1120_memo_prosecutorial_discretion.pdf (last visited Dec. 4, 2021).

⁶⁷ *Id.*

⁶⁸ *Id.* at 3-4.

Priority 1 illegal aliens were:

- (a) aliens engaged in or suspected of terrorism or espionage, or who otherwise pose a danger to national security;

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- (b) aliens apprehended at the border or ports of entry while attempting to unlawfully enter the United States;
 - (c) aliens convicted of an offense for which an element was active participation in a criminal street gang, as defined in 18 U.S.C. § 521(a), or aliens not younger than 16 years of age who intentionally participated in an organized criminal gang to further the illegal activity of the gang;
 - (d) aliens convicted of an offense classified as a felony in the convicting jurisdiction, other than a state or local offense for which an essential element was the alien's immigration status; and
 - (e) aliens convicted of an "aggravated felony," as that term is defined in section 101(a)(43) of the *Immigration and Nationality Act* at the time of the conviction.

Priority Number 2 illegal aliens were:

- (a) aliens convicted of three or more misdemeanor offenses, other than minor traffic offenses or state or local offenses for which an essential element was the alien's immigration status, provided the offenses arise out of three separate incidents;
- (b) aliens convicted of a "significant misdemeanor," which for these purposes is an offense of domestic violence; sexual abuse or exploitation; burglary; un[]lawful possession or use of a firearm; drug distribution or trafficking; or driving under the influence; or if not an offense listed above, one for which the individual was sentenced to time in custody of 90 days or more (the sentence must involve time to be served in custody, and does not include a suspended sentence);
- (c) aliens apprehended anywhere in the United States after unlawfully entering or re-entering the United States and who cannot establish to the satisfaction of an immigration officer that they have been physically present in the United States continuously since January 1, 2014; and
- (d) aliens who, in the judgment of an ICE Field Office Director, USCIS District Director, or USCIS Service Center Director, have significantly abused the visa or visa waiver programs.

Priority 3 illegal aliens:

Priority 3 aliens are those who have been issued a final order of removal on or after January 1, 2014. Aliens described in this

aspects of the country's immigration laws. Some critics of S-COMM felt that the PEP did not go far enough.⁶⁹

Under both S-COMM and the PEP, enforcement started at the state or local level. When an individual was arrested and fingerprinted during intake, those fingerprints could be matched against an immigration database and alert U.S. Immigration and Customs Enforcement (ICE) to the illegal alien's custody.⁷⁰ One major difference between the two programs is how drastically the PEP narrowed the population of immigrants that could be detained

priority, who are not also described in Priority 1 or 2, represent the third and lowest priority for apprehension and removal. Resources should be dedicated accordingly to aliens in this priority. Priority 3 aliens should generally be removed unless they qualify for asylum or another form of relief under our laws or, unless, in the judgment of an immigration officer, the alien is not a threat to the integrity of the immigration system or there are factors suggesting the alien should not be an enforcement priority.

⁶⁹ These critics argue that PEP was not a "new" policy but rather a "rebrand[ing]" of S-COMM. Angélica Cházaro, *Challenging the "Criminal Alien" Paradigm*, 63 UCLA L. REV. 594, 601 (2016). The main critiques of S-COMM were the immigrants being targeted by the program and the way these people were being rounded up. *Id.* at 621. Essentially, critics of S-COMM did not like that seemingly minor offenders were being deported instead of and alongside more serious offenders, despite the fact that both parties were in the country illegally and therefore criminals. *See id.* at 622. In turn, these critics felt PEP did not affect enough meaningful change and that there would still be too large a number of immigrants deported. *Id.* at 23. These critics' second critique of S-COMM was that they disagreed with the required information sharing between local law enforcement and ICE. *Id.* Consequently, critics of PEP felt that this issue was not sufficiently addressed by the new policy, and in turn actually began efforts to warn immigrants of possible attempts to be captured by ICE. *Id.* at 626.

⁷⁰ *See Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENFORCEMENT, <https://www.ice.gov/pep> (last visited Dec. 4, 2021); *Immigration Detainers Under the Priority Enforcement Program*, AMERICAN IMMIGR. COUNCIL (Jan. 25, 2017), <https://www.americanimmigrationcouncil.org/research/immigration-detainers-under-priority-enforcement-program>.

for removal proceedings.⁷¹ Under S-COMM, ICE could request a detainer against a person who was, first, *charged* with an offense by a state or local law enforcement agency and, second, the immigration officer had reason to believe was subject to ICE removal proceedings.⁷² Thus, an immigrant with no criminal history other than his or her entrance into the country could be detained for removal proceedings.⁷³ By contrast, under the PEP, an individual must first be *convicted* of an offense.⁷⁴ Whether or not that individual will be subject to removal proceedings after his or her conviction depends on the ranking of the convicted offense on the PEP priority list, whether the offense pertained to gang activity, and if the individual is a threat to national security.⁷⁵

The presence of minors in a situation can skew proceedings under the PEP. Logically, minors, particularly young children, are less likely than adults to be a high priority. For example, one of the Priority 1 categories specifically did not apply to any individual under the age of sixteen.⁷⁶ Another category, “aliens convicted of

⁷¹ *Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENFORCEMENT, <https://www.ice.gov/pep> (last visited Dec. 4, 2021); Jessica Vaughn, *Concerns About the New Priority Enforcement Program*, CTR. FOR IMMIGR. STUD. (Aug. 6, 2019), <https://cis.org/Vaughan/Concerns-About-New-Priority-Enforcement-Program> (last visited Dec. 4, 2021); *Immigration Detainers Under the Priority Enforcement Program*, AM. IMMIGR. COUNCIL (Jan. 25, 2019), <https://www.americanimmigrationcouncil.org/research/immigration-detainers-under-priority-enforcement-program> (last visited Dec. 4, 2021); *Priority Enforcement Program—How DHS is Focusing on Deporting Felons*, DEP’T OF HOMELAND SEC. (July 30, 2019); Vaughn, *Public Safety Impact*, *supra* note 65.

⁷² *Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENFORCEMENT, <https://www.ice.gov/pep> (last visited Dec. 4, 2021).

⁷³ *See id.*

⁷⁴ *Id.* *See also* Vaughn, *Public Safety Impact*, *supra* note 65 (describing an example of how the conviction requirement can lead to the release of even prioritized immigrants).

⁷⁵ Johnson, *supra* note 66, at 2.

⁷⁶ *Id.* at 3 (“aliens not younger than 16 years of age who intentionally participated in an organized criminal gang to further the illegal activity of the gang”).

an offense classified as a felony in the convicting jurisdiction,” will often exclude juveniles by virtue of states’ juvenile delinquency laws, which may not define any offenses as felonies unless the perpetrator is an adult.⁷⁷ Once in the United States, minors affect other removal proceeding decisions, in which DHS personnel are directed to consider family in the United States and young children as factors in deciding removal.⁷⁸

Notably, the only time convicted individuals were subject to removal proceedings solely based on their status is when they were apprehended at the border, not in the United States interior.⁷⁹ This policy under the PEP established that “ICE will no longer seek transfer of individuals with civil immigration offenses alone.”⁸⁰

Limiting the categories of immigrants subject to removal was not the only way the program changed the practice. The PEP also limited how and whether ICE could get custody, even if it was considered a priority.⁸¹ Part of the cited reason for implementing the PEP was because certain cities and jurisdictions did not agree

⁷⁷ Johnson, *supra* note 66, at 3. *See, e.g.*, ARK. CODE ANN. § 9-27-303(15) (defining a “delinquent juvenile” to include “A juvenile ten (10) years old or older who: Has committed an act . . . that, *if the act had been committed by an adult*, would subject the adult to prosecution for a felony”) (emphasis added). The juvenile may be tried as an adult if the juvenile is at least sixteen and charged with a felony, or for certain specified offenses when the juvenile is fourteen or fifteen. ARK. CODE ANN. § 9-27-318(b-c).

⁷⁸ Johnson, *supra* note 66, at 6.

⁷⁹ *See id.* at 3. “[A]liens apprehended at the border or ports of entry while attempting to unlawfully enter the United States...”

⁸⁰ *Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENF’T, <https://www.ice.gov/pep> (last visited Dec. 4, 2021).

⁸¹ *See id.*; *see also* Vaughn, *Public Safety Impact*, *supra* note 65; Vaughn, *Concerns About the New Priority Enforcement Program*, *supra* note 71; *see also Immigration Detainers Under the Priority Enforcement Program*, AM. IMMIGR. COUNCIL (Jan. 25, 2019), <https://www.americanimmigrationcouncil.org/research/immigration-detainers-under-priority-enforcement-program> (last visited Dec. 4, 2021).

with the work of ICE and were refusing to comply.⁸² The Obama administration felt the PEP would relieve these tensions.⁸³ The PEP expressly acknowledges that transfer to ICE is contingent on local cooperation, stating:

Nothing in this memorandum shall prevent ICE from seeking the transfer of an alien from a state or local law enforcement agency when ICE has otherwise determined that the alien is a priority under the November 20, 2014 Policies for the Apprehension, Detention and Removal of Undocumented Immigrants Memorandum *and the state or locality agrees to cooperate with such transfer*.⁸⁴

Further, under S-COMM, ICE could request the individual be detained in custody at the initial booking, allowing no chance for the alien to avoid ICE.⁸⁵ However, under the PEP, ICE could not act until an individual was convicted.⁸⁶ This could lead, albeit rarely, to an individual who is convicted of a priority offense but sentenced to time already served, being released before ICE arrived.⁸⁷ Also of note, under S-COMM, ICE issued a request to detain; however,

⁸² *Priority Enforcement Program—How DHS is Focusing on Deporting Felons*, DEP'T OF HOMELAND SEC. (July 30, 2019), <https://cis.org/Public-Safety-Impact-Obama-Administrations-Priority-Enforcement-Program> (last visited Dec. 4, 2021). See e.g. Cházaro, *supra* note 69, at 627 (discussing the Trust Act and how it limited local law enforcement cooperation with ICE under S-COMM).

⁸³ See *Priority Enforcement Program—How DHS is Focusing on Deporting Felons*, DEP'T OF HOMELAND SEC. (July 30, 2019).

⁸⁴ Jeh Johnson, *Memorandum for Secure Communities*, DEP'T OF HOMELAND SEC. (Nov. 20, 2014), https://www.dhs.gov/sites/default/files/publications/14_1120_memo_secure_communities.pdf (last visited Dec. 4, 2021). See also Vaughn, *Public Safety Impact*, *supra* note 65 (quoting Jeh Johnson, *Memorandum for Secure Communities*, DEP'T OF HOMELAND SEC. (Nov. 20, 2014) (highlighting how this allows sanctuary cities to continue noncompliance).

⁸⁵ See *Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENF'T, <https://www.ice.gov/pep> (last visited Dec. 4, 2021).

⁸⁶ See Vaughn, *Concerns About the New Priority Enforcement Program*, *supra* note 71.

⁸⁷ *Id.*

under the PEP, the request was for notification by law enforcement when the individual was to be released.⁸⁸

The service-of-detainer requirement was another way the local enforcement agency interacted with ICE regarding removals under PEP.⁸⁹ S-COMM encouraged, but did not require, that local law enforcement serve the individual with a copy of the detainer notice in order for it to be effective; under PEP, however, if the individual was not served with the request, ICE could not carry it out, rendering the request void.⁹⁰ It was local law enforcement's responsibility to serve the notice before ICE could intercede.⁹¹

Additionally, the PEP narrowed the 48-hour holding limitation.⁹² Under a detainer request issued under either S-COMM or the PEP, an individual could only be held for 48 hours beyond the time served under the law enforcement agency.⁹³ The PEP, however, included Saturdays, Sundays and holidays in the 48-hour period, whereas S-COMM had excluded them from the calculation.⁹⁴

⁸⁸ Jeh Johnson, *Memorandum re Secure Communities 2*, DEP'T OF HOMELAND SEC. (Nov. 20, 2014); *see also* 8 C.F.R. 287.7(d) ("Upon a determination by the Department to issue a detainer for an alien not otherwise detained by a criminal justice agency, such agency shall maintain custody of the alien for a period not to exceed 48 hours, excluding Saturdays, Sundays, and holidays in order to permit assumption of custody by the Department."). The decision to replace detention requests with notification requests was designed, at least in part, to address constitutional issues with detention requests that were not based on probable cause. *See* Johnson, *supra*, at 2, fn.1 (collecting cases holding that detention requests without probable cause violated the Fourth Amendment).

⁸⁹ *See Priority Enforcement Program*, U.S. IMMIGR. AND CUSTOMS ENF'T, <https://www.ice.gov/pep> (last visited Dec. 4, 2021) (breaking down the new procedural obstacles that LEA now had to follow under PEP).

⁹⁰ *Id.*

⁹¹ *Id.* ("Detainer form **requires** that [the arresting local Law Enforcement Agency] provide a copy to the individual subject to the detainer **in order for the request to be effective.**") (emphasis in original).

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Id.*

The PEP led to some increase in the number of individuals released despite being eligible for removal.⁹⁵ It has been reported that “[t]wo-thirds of those releases were legally required rather than the result of ICE’s use of discretion.”⁹⁶ The Washington Post also reported this effect, citing DHS officials.⁹⁷

One argument in favor of the relaxed enforcement, however, that was not terribly persuasive is that immigrants commit fewer crimes than citizens.⁹⁸ First, this claim is difficult to substantiate because immigrant crime studies fail to distinguish immigration status.⁹⁹ Only one state records the immigration status of those convicted or in their local prisons, and the State Criminal Alien Assistance Program, a means to collect federal data on immigrants in state and local prisons, cannot accurately report on incarceration numbers because it is incomparable to any other measure of data.¹⁰⁰

Moreover, this is not the relevant metric. Such a comparison would only matter if we were analyzing which group to allow into the country. But, of course, that is not the debate, as there is no claim that immigrants would somehow displace legal residents in

⁹⁵ Alex Nowrasteh, *Declining Deportations and Increasing Criminal Alien Releases—The Lawless Immigration Policies of the Obama Administration*, CATO INSTITUTE, (May 19, 2016), <https://www.cato.org/publications/testimony/declining-deportations-increasing-criminal-alien-releases-lawless-immigration> (last visited Dec. 4, 2021).

⁹⁶ *Id.*

⁹⁷ Jason Markon, *Obama Administration Scales Back Deportations in Policy Shift*, THE WASHINGTON POST (July 2, 2015) https://www.washingtonpost.com/politics/dhs-scales-back-deportations-aims-to-integrate-illegal-immigrants-into-society/2015/07/02/890960d2-1b56-11e5-93b7-5eddc056ad8a_story.html?utm_term=.45aaa03bb59e (last visited Dec. 4, 2021).

⁹⁸ Alex Nowrasteh, *Illegal Immigrants and Crime—Assessing the Evidence*, THE CATO INSTITUTE (Mar. 4, 2019), <https://www.cato.org/blog/illegal-immigrants-crime-assessing-evidence?queryID=286cdf689fbbce058f3a3bb25fd99cd> (last visited Dec. 4, 2021).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

the overall level of crime in the United States. Even if immigrants helped reduce the overall crime *rate*, they would undoubtedly increase the absolute quantity of crime, given the increase in population.

D. ASYLUM CLAIMS

The question of whether releasing entire family units into the country pending the outcome of asylum claims requires a look at the likelihood of success of those petitions, because a low likelihood increases the chances that unqualified individuals will remain in country after crossing the border. Looking specifically at those who were apprehended after unauthorized entry and made an asylum claim based on credible fear (i.e., fear of persecution or torture should they be returned to their home country), twelve percent of such individuals were granted asylum in the fiscal year 2019.¹⁰¹ This is very close to the long-running average; from the fiscal year 2008 to the fiscal year 2019, 14% of such claims were granted.¹⁰² For that same period, 55% of credible-fear claimants were either immediately found to have no credible fear or failed to apply for asylum after making a credible-fear claim.¹⁰³ Out of those with a credible-fear claim who actually apply for asylum, more than two thirds are denied.¹⁰⁴ Furthermore, statistics from U.S. immigration courts indicate that over half of U.S. immigration judges have an asylum denial rate of 70% or higher, and one-in five have an asylum

¹⁰¹ DEPARTMENT OF JUSTICE, *Credible Fear and Asylum, FY 19 Q4*, (2019).

¹⁰² EXECUTIVE OFFICE FOR IMMIGRATION REVIEW, DEP'T OF JUSTICE, *CREDIBLE FEAR AND ASYLUM PROCESS: FISCAL YEAR (FY) 2008 – FY 2019*, (2019).

¹⁰³ *Id.*

¹⁰⁴ *Id.* (This document looks at a representative group of one hundred credible fear claimants to better demonstrate the relevant percentages. Out of those one hundred original claimants, thirty-one had a credible fear claim and applied for asylum but were denied. Dividing that number by the total number of claimants with a credible fear claim who then applied for asylum, forty-five, and accounting for significant figures, shows that sixty-nine percent of asylum claims made by applicants with a valid credible fear claim are denied).

denial rate of over 80%.¹⁰⁵ This is despite the fact that the total number of asylum claims began to climb precipitously in 2015.¹⁰⁶ The annual number of total claims stayed around 40,000 from 2008 to 2014, but reached 63,744 in 2015 and went all the way up to 213,320 in 2019.¹⁰⁷ Asylum denial rates have gone up in similar proportion since 2015.¹⁰⁸

Of course, only half of the equation is the likelihood of success on asylum claims. The other half is the probability that the asylum seekers show up for their post-entry hearings. To the extent that they do not, these individuals both violate the law and skirt the immigration and asylum processes. Almost half of those with pending asylum cases do not appear for trial, choosing instead to stay in the country illegally.¹⁰⁹

III. THE COSTS OF IMMIGRATION

An honest analysis of immigration must account for costs as well as benefits. Such a complicated issue clearly cannot be all good or all bad, as some on each side of the debate seem to suggest. The costs can be broadly divided into economic costs and social costs.

A. ECONOMIC COSTS

Much debate has been made about whether immigration provides a net positive or net negative effect on national wealth. Of

¹⁰⁵ *Asylum Success Varies Widely Among Immigration Judges*, TRAC IMMIGRATION (Dec. 9, 2021), <https://trac.syr.edu/immigration/reports/670/#:~:text=Based%20on%20TRAC's%20updated%20data,of%20less%20than%2010%20percent> (last visited Mar. 13, 2022).

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ Salvador Rizzo, *How Many Migrants Show Up for Immigration Court Hearings?* THE WASHINGTON POST, (June 26, 2019), <https://www.washingtonpost.com/politics/2019/06/26/how-many-migrants-show-up-immigration-court-hearings/> (last visited Dec. 4, 2021).

course, the United States has often pursued policies that have significant economic costs. So, to be clear, a net negative cost is not dispositive on any immigration policy. However, the facts need to be understood in order to fairly evaluate this important metric.

1. *Tax Contributions*

Immigrants clearly provide economic value and tax revenue to the communities in which they live.¹¹⁰ While this is true, such claims suggest that immigrants generate substantial tax revenue, which is likely untrue.¹¹¹ Because these immigrants typically only make modest incomes, estimates generally conclude that these immigrants have a relatively small financial impact on overall tax revenues.¹¹² Also, one must take into consideration those who work off-the-books and thereby evade paying taxes all together.¹¹³

The immigrant working class typically secures low-skilled jobs, often jobs that are hard to fill with the available domestic

¹¹⁰ Steinbuch, *3 Common Arguments for Overlooking Illegal Immigration*, *supra* note 3.

¹¹¹ *See id.* *See* Matthew O'Brien, Spencer Raley, & Jack Marin, *The Fiscal Burden of Illegal Immigration on United States Taxpayers*, FEDERATION FOR AMERICAN IMMIGRATION REFORM 1-2 (2017), <https://www.fairus.org/sites/default/files/2017-09/Fiscal-Burden-of-Illegal-Immigration-2017.pdf> (last visited Dec. 4, 2021). (pointing out common flaws in the various reports that show illegal immigrants actually contribute taxes to their communities. These flaws include, but are not limited to, the fact that these studies oftentimes narrowly define what an undocumented immigrant is, these studies fail to examine what the tax revenue would be if an American employee held the same job, and these studies fail to analyze tax refunds.)

¹¹² *See* Cong. Budget Office, *The Impact of Unauthorized Immigrants on the Budgets of State and Local Governments* 1, 3 (CONG. BUDGET OFFICE, 2007) <https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/12-6-immigration.pdf> (last visited Dec. 4, 2021).

¹¹³ *See* Jon Feere, *The Myth of the "Otherwise Law-Abiding" Illegal Alien*, CENTER FOR IMMIGRATION STUDIES, 11 (Oct. 7, 2013) <https://cis.org/Report/Myth-Otherwise-LawAbiding-Illegal-Alien> ("Approximately seven to eight million illegal aliens are holding jobs, and approximately 45 to 50 percent of them are estimated to be working off the books.").

workforce.¹¹⁴ These occupations pay low wages, and some of these workers and their children receive government assistance.¹¹⁵ Like United States citizens who make only modest incomes, many

¹¹⁴ See Steven A. Camarota, *Enforcing Immigration Law is Cost Effective*, CENTER FOR IMMIGRATION STUDIES (Oct. 28, 2018), <https://cis.org/Camarota/Enforcing-Immigration-Law-Cost-Effective>; see Steven A. Camarota, *Deportation vs. The Cost of Letting Illegal Immigrants Stay*, CENTER FOR IMMIGRATION STUDIES (Aug. 3, 2017), <https://cis.org/Report/Deportation-vs-Cost-Letting-Illegal-Immigrants-Stay>; See O'Brien, Raley, & Marin, *supra* note 111, at 27, 57 (explaining how only very few illegal aliens are able to secure high skilled work) (reporting that there were approximately 12.5 million illegal aliens in the US and approximately 4.2 million citizen children of illegal aliens who were born in the United States).

¹¹⁵ See Camarota, *Deportation vs. The Cost*, *supra* note 103 (citing Jason Richwine & Robert Rector, *The Fiscal Cost of Unlawful Immigrants and Amnesty to the US Taxpayer*, THE HERITAGE FOUNDATION (May 6, 2013), <https://www.heritage.org/immigration/report/the-fiscal-cost-unlawful-immigrants-and-amnesty-the-us-taxpayer> (last visited Dec. 4, 2021)); See Steven A. Camarota, *Immigrants in the United States*, CENTER FOR IMMIGRATION STUDIES (Aug. 2012) <https://cis.org/sites/cis.org/files/articles/2012/immigrants-in-the-united-states-2012.pdf>; See Jeffery S. Passel & D'Vera Cohn, *A Portrait of Unauthorized Immigrants in the United States*, PEW HISPANIC CENTER (Apr. 14, 2009), <https://www.pewhispanic.org/2009/04/14/a-portrait-of-unauthorized-immigrants-in-the-united-states/> (last visited Dec. 4, 2021) (reporting an estimate of 49% of illegal aliens have not completed high school, 28% only have a high school education, 11% have some college, and 3% have a college degree and reporting on the fiscal drain of illegal immigrants, excluding their children, based on education level); see O'Brien, Raley, & Marin, *supra* note 111, at 27, 57 (citing Richwine & Rector, *supra*; Passel & Cohn, *supra*; Steven A. Camarota, *Welfare Use by Legal and Illegal Immigrant Households*, CENTER FOR IMMIGRATION STUDIES (Sept. 2015), <http://cis.org/Welfare-Use-Legal-Illegal-Immigrant-Households> (last visited Dec. 4, 2021) (reporting the average illegal alien household makes \$36,000 and explaining how illegal aliens only bring in modest wages from low skilled work and how adding in children increases the fiscal burden). See also Jason Richwine, *The Cost of Welfare Use by Immigrant and Native Households*, CENTER FOR IMMIGRATION STUDIES (May. 9, 2016) <https://cis.org/Report/Cost-Welfare-Use-Immigrant-and-Native-Households> (last visited Dec. 4, 2021).

immigrants do not pay federal income taxes; moreover, those using valid identification may qualify for tax refunds through programs such as the Additional Child Tax Credit or an Earned Income Tax Credit.¹¹⁶ By one estimate, the government pays immigrants, as a group, more money back in federal income tax refunds than they pay in.¹¹⁷ State income taxes are subject to the same variables as federal income tax. It is noteworthy that, unlike with federal taxes, the immigrant work force likely pays more in state income tax than it receives back in state tax refunds,¹¹⁸ however this net contribution in state income tax likely does not exceed the deficit created in federal income taxes.¹¹⁹

Income taxes, of course, are not the only taxes to which immigrant workers are subject.¹²⁰ Working on-the-books will

¹¹⁶ See O'Brien, Raley, & Marin, *supra* note 111, at 27-31 (stating that an Additional Child Tax Credit (ACTC) is a "lump sum paid by the U.S. Treasury to low income workers with children."). See *id.* at 29. (stating that illegal aliens not using a fraudulent Social Security number are able to file for these credits with an Individual Tax Identification Number (ITIN), a tax processing number given out to foreign nationals regardless of their immigration status.) See *id.* ("The Earned Income Tax Credit (EITC) is refundable tax credit available to low- and moderate- income individuals who are employed." See *id.* (stating that the average income of an illegal immigrant household coupled with children would likely meet the requirements of an EITC.) See *id.* at 30. (arguing that illegal aliens are supposed to be blocked from receiving these credits.) See *id.* (stating that doesn't seem to be stopping illegal aliens because they are either using fraudulent SSN or the IRS erroneously issued ITIN holders an EITC.) See *id.* (citing *Without Expanded Error Correction Authority, Billions of Dollars in Identified Potentially Erroneous Earned Income Credit Claims Will Continue to Go Unaddressed Each Year*, U.S. TREASURY INSPECTOR GENERAL REPORT NO. 2016-40-036, (2016)).

¹¹⁷ See O'Brien, Raley, & Marin, *supra* note 111, at 31 (reporting an illegal alien federal income tax deficit of \$3,541,600,000).

¹¹⁸ See *id.* at 52.

¹¹⁹ See *id.* at 31, 52. (stating that FAIR reports a \$3,541,600,000 federal tax deficit and a \$1,050,000,000 net state tax revenue. Notably, the latter number excludes EITCs.).

¹²⁰ See *id.* at 31-33, 52-54.

subject workers to Social Security and Medicare taxes.¹²¹ Further, whether working on-the-books or off, all immigrant workers are subject to various federal excise taxes, as well as state property, sales, and gas taxes.¹²² Factoring in these various other taxes that immigrant workers pay increases their tax contribution to society.¹²³ However, then considering the amount of government assistance and use of public facilities (such as roads for which gas taxes are generally collected) immigrant workers as a group benefit from suggests that their tax contribution is likely surpassed by expenditures to create a deficit.¹²⁴ Specifically, the largest state and local expenditure on services provide to immigrants is education, more than twice what is spent on the next highest: Medicaid

¹²¹ *See id.* at 31 (stating that FAIR estimates that illegal aliens, matched by their employers, contribute \$18,490,000,000 through Social Security and Medicare Taxes).

¹²² *See id.* at 32 (stating that the excise taxes include taxes on fuel, tobacco, alcohol and airline tickets). *See id.* at 52–53 (stating that the excise taxes estimated for illegal aliens totaled \$401,140,000. FAIR estimates that illegal aliens pay \$918,000,000 in property taxes, \$598,600,000 in fuel taxes and \$1 billion dollars in sales tax).

¹²³ *See generally id.* at 55. *See also*, Camarota, *Deportation vs. The Cost*, *supra* note 103 (citing THE ECONOMIC AND FISCAL CONSEQUENCES OF IMMIGRATION 289, Francine D. Blau and Christopher Mackie, eds., 2016) (reporting an estimated lifetime net fiscal drain of illegal immigrants, excluding their children, at \$65.3 billion per million illegal immigrants. A subsequent study by the CIS adjusted the previous report to allow for inflation in 2018.) *See also* Camarota *Enforcing Immigration Law*, *supra* note 114 (reporting a \$69.6 billion net fiscal drain per every million illegal immigrants).

¹²⁴ *See* O'Brien, Raley, & Marin, *supra* note 111, at 57. *See also* Camarota, *Deportation vs. The Cost*, *supra* note 114 (reporting on the difference between taxes paid by illegal immigrants and the services they enjoy); *See also* Camarota, *Enforcing Immigration Law*, *supra* note 103 (offering updated figures on the difference between the taxes immigrants pay and the services they enjoy). *See generally* Richwine, *The Cost of Welfare*, *supra* note 106 (reporting on the volume of welfare that immigrants consume).

benefits.¹²⁵ In addition, per capita the cost of policing and judicial proceedings contributes to the balance sheet.¹²⁶

2. Education Costs

Education rings up a hefty bill both in federal and state budgets.¹²⁷ It is the largest expenditure in state and local spending.¹²⁸ It is also the largest category of cost related to immigration at the state and local level.¹²⁹ Since *Plyler v. Doe*, legal precedent has mandated that public schools accept immigrant students.¹³⁰ As of 2007, an estimated five million of the 53.3 million school-age children in the United States were either unauthorized immigrants or the children of unauthorized immigrants.¹³¹

Localities throughout the country have felt the impact on their education systems. In 2014, several counties in northern Virginia received resettled unaccompanied minors, including 1,131 children in Fairfax County, 417 in Prince William County, and 227 in

¹²⁵ See Cong. Budget Office, THE IMPACT OF UNAUTHORIZED IMMIGRANTS ON THE BUDGETS OF STATE AND LOCAL GOVERNMENTS 3, 11 (CONG. BUDGET OFFICE, 2007) <https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/12-6-immigration.pdf>.

¹²⁶ See *id.* at 14–18 (stating that judicial costs include federal incarceration, The Office of Enforcement and Removal Operations, Customs and Border Patrol (CBP), other ICE agencies and operations, State Criminal Alien Assistance Program, Executive Office for Immigration Review, costs associated with unaccompanied minor children’s care, and Byrne Grants.) See *id.* at 44 (stating that states bordering migrant countries allocate some of their security budgets to border security). See also *supra*, Part I.

¹²⁷ See O’Brien, Raley, & Marin, *supra* note 111, at 8–24, 37–48.

¹²⁸ See Cong. Budget Office, THE IMPACT OF UNAUTHORIZED IMMIGRANTS ON THE BUDGETS OF STATE AND LOCAL GOVERNMENTS, 7 (CONG. BUDGET OFFICE, 2007) <https://www.cbo.gov/sites/default/files/110th-congress-2007-2008/reports/12-6-immigration.pdf> (last visited Dec. 4, 2021).

¹²⁹ See O’Brien, Raley, & Marin, *supra* note 111, at 37–39.

¹³⁰ O’Brien, Raley, & Marin, *supra* note 111, at 37; *Plyler v. Doe*, 457 U.S. 202 (1982).

¹³¹ CONG. BUDGET OFF., *supra* note 112, at 7–8.

Loudon County.¹³² Concerned about the additional cost of educating the influx of new students and the burden on local tax payers, several county officials and school board members joined in asking the federal government to reimburse the cost.¹³³ While exact numbers on the cost of education were not available, one county supervisor estimated that Fairfax County would spend over \$14 million to educate the new unaccompanied minors over the course of a full school year.¹³⁴

In secondary education, immigrants cannot receive government-funded financial aid for college; however, several states have passed laws that help ease that burden and make college education possible.¹³⁵ For example, seven states have begun offering scholarships to immigrants.¹³⁶ Eighteen states allow undocumented students to get in-state tuition.¹³⁷

3. Medicaid and Other Welfare Costs

While immigrants generally are not formally eligible for most federal or state healthcare, they nonetheless often receive medical care and their children often do qualify for government-assisted healthcare.¹³⁸ For example, immigrants can receive government-

¹³² Julie Zauzmer & Moriah Balingit, *Counties Look at Cost of Educating Unaccompanied Minors Who Crossed Border*, THE WASHINGTON POST Post (Oct. 9, 2014), https://www.washingtonpost.com/local/education/counties-look-at-cost-of-educating-unaccompanied-minors-who-crossed-border/2014/10/09/1f883fdc-4e6c-11e4-8c24-487e92bc997b_story.html (last visited Dec. 4, 2021); Caitlin Gibson, *Loudoun to Gather Information on Undocumented Child Immigrants*, THE WASHINGTON POST (Oct. 3, 2014), https://www.washingtonpost.com/local/loudoun-to-gather-information-on-undocumented-child-immigrants/2014/10/03/599dbd56-4989-11e4-891d-713f052086a0_story.html (last visited Dec. 4, 2021).

¹³³ Zauzmer & Balingit, *supra* note 132.

¹³⁴ *Id.*

¹³⁵ O'Brien, Raley, & Marin, *supra* note 111 at 38.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.* at 10–13, 40–41.

funded healthcare through uncompensated hospital expenditures, Medicaid-financed births, and improper Medicaid payments.¹³⁹

As with healthcare, immigrants are not eligible for certain welfare programs such as Supplemental Nutrition Assistance Program (SNAP), although again their U.S.-citizen children can be eligible.¹⁴⁰ However, when U.S.-born children of immigrants receive government assistance it is reasonable to consider these payments as a related cost of immigration since there would have been no expenditure of U.S. funds if not for the parent's immigration.¹⁴¹

Immigrants are directly eligible for some benefits such as Women Infants and Children (WIC).¹⁴² Among the benefits that U.S.-born citizens can receive while living with their illegal-immigrant parents are SNAP, Temporary Assistance for Needy Families (TANF), and Supplemental Security Income (SSI).¹⁴³ Likewise, immigrants do not qualify for federal public housing; their presence in a household does not bar receipt of such benefits, but rather causes the government to distribute them in a prorated fashion.¹⁴⁴ However, at least one state, Massachusetts, does allow immigrants access to state and local housing assistance.¹⁴⁵ The

¹³⁹ *Id.* at 10-12. Uncompensated medical care is when an uninsured individual receives medical care that they do not pay for, *see id.* at 10. Medicaid births are . . . what their name suggests: a birth funded by Medicaid, *see id.* at 11. Improper Medicaid payments include improper payouts to illegal immigrants or Medicaid fraud, *see id.* at 12.

¹⁴⁰ *Id.* at 21.

¹⁴¹ *See id.* at 20.

¹⁴² *Id.* at 21.

¹⁴³ *Id.* at 21-23. SNAP is best known as food stamps. *Id.* at 21. TANF temporarily provides "cash assistance to supplement their earned income;" illegal aliens can receive TANF funds if the child that they are supporting is a U.S. citizen. *Id.* at 22-23. SSI provides support to U.S. citizens with mental or physical disabilities. *Id.* at 23.

¹⁴⁴ *Id.* at 23 (citing MAGGIE McCARTY & ALISON SISKIN, CONG. RSCH. SERV., RL31753, IMMIGRATION: NON-CITIZEN ELIGIBILITY FOR NEEDS-BASED HOUSING PROGRAMS (2008)).

¹⁴⁵ *Eligibility*, MASSLEGALHELP, <https://www.masslegalhelp.org/housing/eligibility> (last visited Dec. 4, 2021).

exact amount of housing assistance that is actually spent as a result of immigration is difficult to calculate, however, due to a lack of hard data on the phenomenon.¹⁴⁶

B. SOCIAL COSTS

Another important consideration are the social costs associated with the violations of law that accompany immigration under the current immigration system.¹⁴⁷ Having a system wherein (a) large numbers of immigrants have no choice but to violate law and (b) large expenses are incurred in the criminal justice system because of those violations is not tenable long term. It is important to account for and reduce these social costs.

I. Driver Licenses

There are a number of federal and state statutes that immigrants confront.¹⁴⁸ One concern that state governments have tried to

¹⁴⁶ See O'Brien, Raley, & Marin, *supra* note 111, at 23-24.

¹⁴⁷ See Steinbuch, *supra* note 3; see also Feere, *supra* note 113.

¹⁴⁸ Feere, *supra* note 113, at 4-7 (quoting 8 U.S.C. § 1325):

“An alien violates 8 U.S.C. § 1325 if he or she: (1) enters or attempts to enter the United States at any time or place other than as designated by immigration officers, or (2) eludes examination or inspection by immigration officers, or (3) attempts to enter or obtains entry to the United States by a willfully false or misleading representation or the willful concealment of a material fact.”

See *id.* at 4 (quoting 8 U.S.C. § 1325(a)) (“An alien is deportable under 8 U.S.C. § 1227(a)(1)(B) and (C)(i) if the alien’s visa status has changed, or the alien has failed to maintain ‘nonimmigrant’ status”). See also Feere, *supra* note 113, at 5-6 (quoting 8 U.S.C. § 1253):

“An alien violates 8 U.S.C. § 1253 when he or she:

(A) willfully fails or refuses to depart from the United States within a period of 90 days from the date of the final order of removal under administrative processes, or if judicial review is had, then from the date of the final order of the court,

address is driver safety among immigrant populations, specifically with driver license regulations. Immigrants, particularly undocumented immigrants, will often inevitably violate documentation laws, such as driving without a valid driver's license.¹⁴⁹ In response to this problem, fifteen states and D.C. have enacted "Green Light" laws, which require county clerks to issue driver licenses to certain immigrants under specific circumstances.¹⁵⁰ Advocates have suggested that these laws promote road safety;¹⁵¹ since immigrants are driving anyway, the

(B) willfully fails or refuses to make timely application in good faith for travel or other documents necessary to the alien's departure,

(C) connives or conspires, or takes any other action, designed to prevent or hamper or with the purpose of preventing or hampering the alien's departure pursuant to such, or

(D) willfully fails or refuses to present himself or herself for removal at the time and place required by the Attorney General pursuant to such order."

See also Feere, *supra* note 113, at 6.

¹⁴⁹ *Id.* at 7. Other additional offenses include 8 U.S.C. § 1302: all aliens, including illegal aliens, have to register their presence in the U.S. within thirty days. *Id.* at 4. Aliens are also likely to be driving without insurance or driving without valid vehicle registration. *Id.* at 7.

¹⁵⁰ *States Offering Driver's Licenses to Immigrants*, NATIONAL CONFERENCE OF STATE LEGISLATURES, (Feb. 6, 2020) <https://www.ncsl.org/research/immigration/states-offering-driver-s-licenses-to-immigrants.aspx> (last visited Dec. 4, 2021) ("These states—California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maryland, Nevada, New Jersey, New Mexico, New York, Oregon, Utah, Vermont and Washington—issue a license if an applicant provides certain documentation, such as a foreign birth certificate, foreign passport, or consular card and evidence of current residency in the state.").

¹⁵¹ *See e.g.* Chaiyaporn Baokaew, *Licenses For Undocumented Immigrants Would Make Roads Safer*, *Lawmakers Say*, WGBH NEWS, (Jan. 23, 2019), <https://www.wgbh.org/news/local-news/2019/01/23/licenses-for-undocumented-immigrants-would-make-roads-safer-lawmakers-say> (last visited Dec. 4, 2021); *see also* Mary Duan, *Should States Give Driver's Licenses to Unauthorized Residents?*, *INSIGHTS BY STANFORD BUSINESS*,

licensing process will ensure they know how to operate their vehicles safely.¹⁵² While the policy may produce some positive results, the claims have suggested positive benefits that are greater than those likely to occur.

First, the idea that driver licenses are safety devices rather than a government revenue-driving tool is at least somewhat dubious.¹⁵³ More importantly, the belief that immigrants, or anyone for that matter, will drive regardless of legal access to licenses would also imply that those failing the exam will simply drive without licenses as well. Thus, the premise that underlies Green Light laws—that licensing does not affect willingness to drive—is problematic because it leads to the conclusion that immigrants will drive regardless of whether or not they obtain driver licenses.¹⁵⁴ If true, the availability of driver licenses to immigrants will have no effect on their willingness to drive and thus no effect on safety.¹⁵⁵

(Apr. 3, 2017), <https://www.gsb.stanford.edu/insights/should-states-give-drivers-licenses-unauthorized-residents> (last visited Dec. 4, 2021); see also Chris Burrell, *Licensed Undocumented Immigrants May Lead To Safer Roads, Connecticut Finds*, NPR, (7:04 A.M. ET, May 24, 2019), <https://www.npr.org/2019/05/24/719959760/licensed-undocumented-immigrants-may-lead-to-safer-roads-connecticut-finds> (last visited Dec. 4 2021).

¹⁵² Baokaew, *supra* note 151.

¹⁵³ *Contra id.* (Stating that driver's licenses ensure motorists have the necessary eyesight and skills to drive).

¹⁵⁴ Duan, *supra* note 151. (showing that once California granted licenses to illegal aliens, the overall number of accidents in the state did not change despite there being 600,000 more licensed drivers from when the law became effective in 2015 to the time of the study).

¹⁵⁵ *But see id.* (While this study found that California's law granting licenses to illegal immigrants did not have an impact on the overall number of accidents, it did show a ten percent reduction in hit and run incidents. The researchers attributed this to a licensed illegal immigrant's decreased propensity to flee the scene of an accident before police arrive).

In reality, at least some of those without licenses will not drive.¹⁵⁶ The idea that legal prohibitions do not at least partially affect behavior is belied by an economic analysis of law.¹⁵⁷ If licensure didn't affect outcomes, then we would not limit licenses to those who are of-age or suspend licenses of drunk drivers.¹⁵⁸ Indeed, to assert the alternative—that immigrants will drive regardless of whether they have licenses—suggests an insidious bias against, or a benign contempt for, those would-be beneficiaries who allegedly are willing, *en masse*, to violate laws beyond those relating to immigration status.¹⁵⁹

As for hard statistical support either for or against increased safety from Green Light licenses, there does not seem to be any comprehensive survey on the topic, though there are some simple trend lines.¹⁶⁰ For example, four years after Connecticut enacted its Green Light legislation, supporters pointed to a decrease in the number of hit and runs statewide as evidence that the measures were increasing safety.¹⁶¹ A particular article in NPR focused on the four

¹⁵⁶ See Katie Rooney, *Revoking Licenses Deters Drunk Driving*, TIME, (July 25, 2007), <http://content.time.com/time/health/article/0,8599,1646906,00.html> (last visited Dec. 4, 2021).

¹⁵⁷ Jacob Bogage, *Yes, Stricter Driving Laws Really Do Make Us Safer*, THE WASHINGTON POST, (July 14, 2016, 6:00 a.m.), <https://www.washingtonpost.com/news/wonk/wp/2016/07/14/yes-stricter-driving-laws-really-do-make-us-safer/> (last visited Dec. 4, 2021). (discussing how driving laws with strict penalties demonstrably reduce whatever the targeted activity is of particular interest is the effect of restricting access to driver's licenses for teens. There we see that restricting a particular demographics' access to driver's licenses reduces their use of a vehicle overall.)

¹⁵⁸ See *id.*; see Rooney, *supra* note 156.

¹⁵⁹ President George W. Bush, Speech to NAACP's 91st Annual Convention (July 10, 2000) (speaking about the dangers of "the soft bigotry of low expectations" in the context of academic achievement. Proponents of Green Light laws demonstrate a similar "soft bigotry," implying that unlawful immigrants are the type of people who will always ignore laws prohibiting unlicensed driving).

¹⁶⁰ Burrel, *supra* note 151.

¹⁶¹ *Id.*

cities that issued the most Green Light licenses in that time frame: Bridgeport, Norwalk, Danbury, and Stamford.¹⁶² Of those four, Bridgeport and Stamford both saw a decrease in the number of hit and runs from 2016 to 2018, while Norwalk and Danbury saw an increase.¹⁶³ Supporters of the law touted this, alongside a nine percent statewide drop in hit and runs, as evidence of the law's effectiveness.¹⁶⁴ Indeed, it was positive news; however, it was for this data only.

However, when we expand the data set from 2016-2018 to 2016-2020 (to exclude any changes caused by reduced travel from COVID-19 shutdowns),¹⁶⁵ Bridgeport, Danbury, and Stamford show a slight downward trend in the number of hit-and-runs while Norwalk has a slight upward trend.¹⁶⁶ Furthermore, this data leaves out 2015 statistics, even though Connecticut's Green Light-style regulations were enacted on January 2, 2015. If the data set begins in 2015, we see that Bridgeport and Norwalk show an upward trend while Stamford and Danbury show a downward trend.¹⁶⁷

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.* (“[Connecticut Transportation Safety Research Center Crash Data Liaison Charles] Grasso said undocumented immigrant drivers are confident they won't be charged with unlicensed driving and are less likely to flee a crash.”).

¹⁶⁵ *COVID-19: Governor Lamont's Executive Orders for the State of Connecticut*, SHIPMAN & GOODWIN, <https://www.shipmangoodwin.com/covid-19-governor-lamonts-executive-orders-for-the-state-of-connecticut.html> (last visited Dec. 4, 2021).

¹⁶⁶ *See infra* Figure 1.

¹⁶⁷ *See infra* Figure 2.

Figure 1

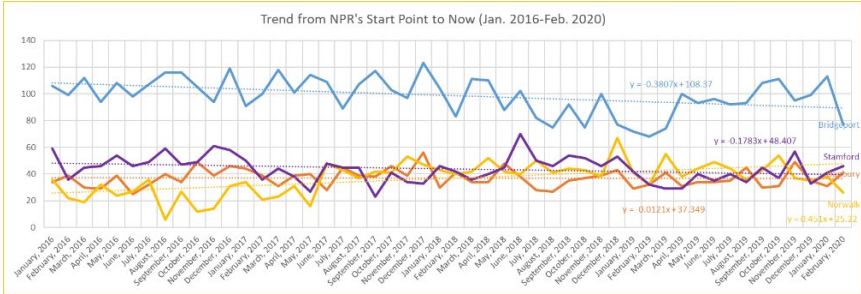
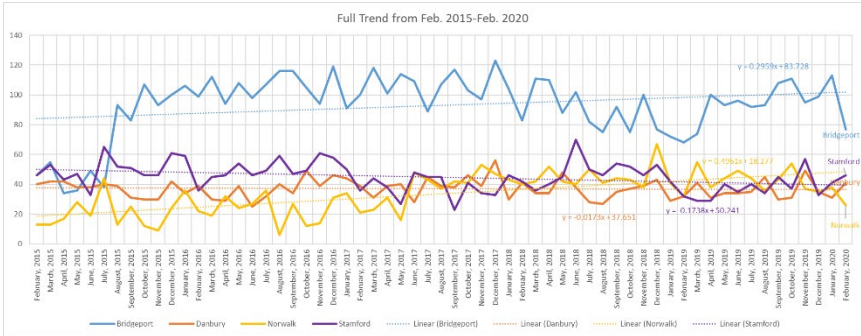


Figure 2



Neither of these data sets conclusively determine the effect of Green Light laws on safety as measured by the number of hit-and-runs. Answering that question would require crafting a comprehensive statistical model that considers all other factors that could affect the number of hit-and-runs. This would be beyond the scope of this article. However, it would be a compelling case for further study, especially since Connecticut crash data is so easily accessible to the general public.¹⁶⁸ Without further research into drivers-safety statistics and the measurable effects of driving safety

¹⁶⁸ See CONNECTICUT CRASH DATA REPOSITORY, <https://www.ctcrash.uconn.edu/> (last visited Dec. 4, 2021).

regulations, we do not know if these laws provide the social benefit the advocates of these laws claim they do.

2. *Employment-Related Law*

The 1986 Immigration Reform and Control Act (IRCA) made it illegal for employers to hire undocumented immigrants.¹⁶⁹ Under the IRCA, employers are subject to penalties for hiring undocumented immigrants, and enough routine violations can land an employer in prison.¹⁷⁰ There is, however, a legal defense if the employer made a good faith effort to comply with the law, meaning that the employer truly did not know that the immigrant's legal status.¹⁷¹ To work in the United States, one must have a Social Security number.¹⁷² Accordingly, the employer's good faith effort requires that the employer examine various forms of identification that purport to confirm the immigration status that the immigrant is claiming.¹⁷³ If an employer is blameless, then the immigrant must have lied about citizenship or immigration status and presented the employer with falsified documents, including a Social Security number.¹⁷⁴ This happens often: the Office of the Chief Actuary

¹⁶⁹ Feere, *supra* note 113, at 7; Immigration Reform and Control Act of 1986, Pub.L. 99-603, Nov. 6, 1986.

¹⁷⁰ *Id.* at 7-8; *See also* 8 U.S.C. § 1324a.

¹⁷¹ 8 U.S.C. § 1324a(a)(3).

¹⁷² SOC. SEC. ADMIN., PUB. NO. 05-10107, *Foreign Workers and Social Security Numbers* (2017), <https://www.ssa.gov/pubs/EN-05-10107.pdf> (last visited Dec. 4, 2021); SOC. SEC. ADMIN., PUB. NO. 05-10096, *Social Security Numbers for Noncitizens* (2018), <https://www.ssa.gov/pubs/EN-05-10096.pdf> (last visited Dec. 4, 2021).

¹⁷³ 8 U.S.C. § 1324a(b). An employer must verify an employee's authorization status with either (1) a US passport, resident alien card, alien registration card, or other document issued by the Attorney General or (2) a combination a SSN or authorized employment document and a driver's license or similar document. *Id.* Option (1) still requires the alien get a SSN. SOC. SEC. ADMIN., *supra* note 172. "While you wait for your Social Security number, your employer can use a letter from us stating you applied for a number, and your immigration documents can prove your authorization to work in the United States." *Id.*

¹⁷⁴ SOC. SEC. ADMIN., *supra* note 172.

estimated that in 2010, approximately 700,000 unauthorized immigrants had Social Security numbers obtained using fraudulent birth certificates, and an additional 1.8 million were working under Social Security numbers that did not match their names.¹⁷⁵ Even if an immigrant did not claim citizenship but rather claimed that he or she was legally permitted to work in the United States, a Social Security number is still required, and a failure to produce a Social Security number should put the employer on alert.¹⁷⁶ As a result, if an undocumented immigrant is working in the United States, unless the employer is also breaking the law, the immigrant must be working under a fake or stolen Social Security number.¹⁷⁷

Further, a working undocumented immigrant has no option but to prevaricate when filling out the required I-9 form that mandates the employee verify which legal citizenship or immigrant status defines the employee.¹⁷⁸ An undocumented immigrant has no truthful choice on the form, meaning that when the undocumented immigrant fills the form out, he or she has made a false statement or fraudulent act on a government form.¹⁷⁹ An immigrant who gives a false Social Security number subjects himself or herself to 42 U.S.C. § 408, penalties for committing Social Security fraud, and

¹⁷⁵ Stephen Goss et al., Soc. Sec. Admin., Office of the Chief Actuary, *Effects of Unauthorized Immigration on the Actuarial Status of the Social Security Trust Funds* (Apr. 2013), available at https://www.ssa.gov/oact/NOTES/pdf_notes/note151.pdf (last visited Dec. 4, 2021).

¹⁷⁶ Feere, *supra* note 113, at 1; 8 U.S.C. § 1324a(a)(3).

¹⁷⁷ SOC. SEC. ADMIN., *supra* note 172.

¹⁷⁸ Feere, *supra* note 113, at 8-9. The available options for the alien to choose on the I-9 form are, a citizen of the US, a noncitizen nation of the US, a lawful permanent resident, or an alien authorized to work. *Id.* (citing U.S. Citizenship and Immigration Services, *Employment Eligibility Verification Form I-9*, DEP'T OF HOMELAND SEC., <https://www.uscis.gov/sites/default/files/document/forms/i-9-paper-version.pdf> (last visited Dec. 4, 2021)).

¹⁷⁹ *Id.* (first citing 18 U.S.C § 1001) (then citing U.S. Citizenship and Immigration Services, *Employment Eligibility Verification Form I-9*, DEP'T OF HOMELAND SEC.). The available options for the alien to choose on the I-9 form are, a citizen of the US, a noncitizen nation of the US, a lawful permanent resident, or an alien authorized to work. *Id.*

potentially 18 U.S.C. § 1028A, aggravated identify theft if the forged Social Security number belongs to another individual.¹⁸⁰ Additionally, in presenting immigration documents to either the Social Security Administration or the employer to secure a job, the undocumented immigrant has violated 18 U.S.C. § 1546, fraud and misuse of visas, permits, and other documents, 8 U.S.C. § 1324(c) penalties for document fraud, or both.¹⁸¹ Depending on the types of falsified documents the undocumented immigrant presents or possesses, they could violate numerous other documentation offenses.¹⁸² If at any time the undocumented immigrant presents himself or herself as a United States citizen, they have committed a felony.¹⁸³

If the employer hires the undocumented immigrant off-the-book, this does not somehow remove the employee from violating work-related offenses. If the undocumented immigrant has been in the United States for 183 days, the government considers the undocumented immigrant a resident alien and is therefore required to pay taxes like a U.S. citizen.¹⁸⁴ If the undocumented immigrant is working off-the-books and therefore not paying taxes, the undocumented immigrant violates 26 U.S.C. § 7203 by willfully failing to file a return, supply information, or pay taxes.¹⁸⁵

¹⁸⁰ *Id.*; See also 42 U.S.C. § 408 (describing various ways to improperly and deceptively obtain or possess a social security card); 18 U.S.C. § 1028A.

¹⁸¹ See Feere, *supra* note 113, at 9-10; see also 18 U.S.C. § 1546; 8 U.S.C. § 1324c.

¹⁸² Feere, *supra* note 113, at 12-13 (describing several additional laws that an alien breaks if the alien expands on his “legal” façade with various other falsities such as falsified citizenship documents).

¹⁸³ *Id.* (citing 8 U.S.C. § 911).

¹⁸⁴ *Id.*, at 11 (first citing *Introduction to Residency Under U.S. Tax Law*, I.R.S., <https://www.irs.gov/individuals/international-taxpayers/introduction-to-residency-under-us-tax-law>, then citing *Taxation of U. S. Resident Aliens*, I.R.S., <https://www.irs.gov/individuals/international-taxpayers/taxation-of-resident-aliens>).

¹⁸⁵ *Id.*, at 11-12; 26 U.S.C. § 7203.

Having a system wherein (a) large numbers of immigrants have no choice but to violate the law and (b) large expenses are incurred in the criminal justice system because of the above-described legal issues is not tenable long term. These social costs must be accounted for.

IV. CONCLUSION

Understandably, immigration law is often an emotional topic, but unfortunately, debates about it too often quickly lead to hostility, notwithstanding that the United States' immigration policy represents one of the highest moral ideals that the citizens and government of this country can embody. Two of the most intractable questions that we have confronted in the contemporary immigration debate is understanding (1) how and why we wound up where we are regarding family separation and the treatment of unaccompanied minors, and (2) how to measure monetary and social costs of immigration fairly. This article has presented an objective look at these two critical issues with the hope that the analysis will allow for a better evaluation of the complicated immigration questions we collectively face.

PUT EVEN MORE WOMEN AND MINORITIES IN CHARGE

*Peter H. Huang**

I. INTRODUCTION.....	47
A. <i>GENDER UNBALANCED LEADERSHIP</i>	52
B. <i>DO PEOPLE CARE ABOUT SUCCESSFUL WOMEN LEADERS?</i>	64
C. <i>PEOPLE ARE NOT-SO-MUCH RATIONAL AS RATIONALIZING</i>	66
D. <i>MINDFULNESS, LEADERSHIP, AND GENDER</i>	67
II. CONCLUSIONS	68

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I. INTRODUCTION

This essay analyzes and offers an interdisciplinary, multidisciplinary, and transdisciplinary analysis of the international successes of many women leaders in responding to COVID-19.¹ Many reasons have been proposed for,² and many lessons in crisis leadership³ have been drawn from,⁴ the international success of women leaders.

This essay is based on the keynote speech delivered at the South Carolina Journal of International Law & Business's Fall 2020 Symposium: *International Law in Times of Crisis*. This essay further develops the author's related essay,⁵ which analyzes how and why governments should put more women in charge. In doing so, that essay applied such novel disciplinary areas of research to

¹ Peter H. Huang, *Put More Women in Charge and Other Leadership Lessons from COVID-19*, 15 FIU L. REV. 353 (2021).

² See e.g., Louise Champoux-Paillé & Anne-Marie Croteau, *The Reason Why Female Leaders are Excelling at Managing the Coronavirus*, WORLD ECON. FORUM, May 18, 2020, <https://www.weforum.org/agenda/2020/05/why-women-leaders-are-excelling-during-the-coronavirus-pandemic>; Supriya Garikipati & Uma Kambhampati, *Women Leaders Are Better at Fighting the Pandemic*, WORLD ECON. FORUM, July 28, 2020, <https://www.weforum.org/agenda/2020/07/women-leaders-policy-makers-covid19-coronavirus/>.

³ ERIKA HAYES JAMES & LYNN PERRY WOOTEN, *LEADING UNDER PRESSURE: FROM SURVIVING TO THRIVING BEFORE, DURING, AND AFTER A CRISIS* (2010).

⁴ See e.g., Kara Cutruzzola, *6 Things We Can Learn from How Many Women Leaders Have Handled the Pandemic*, IDEAS.TED.COM, Sept. 24, 2020, <https://ideas.ted.com/6-things-we-can-learn-from-how-women-leaders-have-handled-the-pandemic/>.

⁵ Huang, *supra* note 1.

leadership scholarship, such as applied mathematician Eugenia Cheng's manifesto to rethink gender based on category theory.⁶

This essay draws on three additional research disciplines. First, this essay draws on sociologist Leitan Zhang's institutional approach to gender diversity and firm performance.⁷ Second, this essay draws on cognitive scientist Tali Sharot and legal scholar Cass Sunstein's new theory about preferences regarding information,⁸ which this author has already applied to people acquiring or avoiding information about COVID-19,⁹ and information about individuals of different ethnicities and races.¹⁰ Third, this essay also

⁶ See generally EUGENIA CHENG, *X + Y: A MATHEMATICIAN'S MANIFESTO FOR RETHINKING GENDER* (2020). See also Eugenia Cheng, *How to Undo Gender Stereotypes in Math—With Math!*, WIRED (Aug. 25, 2020), <https://www.wired.com/story/how-to-undo-gender-stereotypes-in-math-with-math/>; Katy Guest, *x + y by Eugenia Cheng Review – An End to the Gender Wars?*, GUARDIAN (July 22, 2020), <https://www.theguardian.com/books/2020/jul/22/x-y-by-eugenia-cheng-review-an-end-to-the-gender-wars>; Cathey O'Neil, *Want a Better Way to Think About Gender? Use Math*, N.Y. TIMES (Sept. 4, 2020), <https://www.nytimes.com/2020/09/04/books/review/x-y-mathematicians-manifesto-gender-eugenia-cheng.html>; Jillian Tamaki, *To the Mathematician Eugenia Cheng, There's No Gap Between Art and Science*, N.Y. TIMES (Aug. 13, 2020), <https://www.nytimes.com/2020/08/13/books/review/eugenia-cheng-by-the-book-interview.html>.

⁷ Leitan Zhang, *An Institutional Approach to Gender Diversity and Firm Performance*, 31 ORG. SCI. 439 (2020). See also Stephen Turban, Dan Wu, & Leitan Zhang, *When Gender Diversity Makes Firms More Productive*, HARV. BUS. REV., Feb. 11, 2019.

⁸ Tali Sharot, *Would You Want to Know?*, NATURE HUM. BEHAV. BLOG (Jan. 19, 2020), <https://socialsciences.nature.com/posts/58487-would-you-want-to-know>; Tali Sharot & Cass R. Sunstein, *How People Decide What They Want to Know*, 4 NATURE HUM. BEHAV. 14 (2020).

⁹ Peter H. Huang, *Pandemic Emotions: The Good, the Bad, and the Unconscious -- Implications for Public Health, Financial Economics, Law, and Leadership*, 16 NW. J.L. & SOC. POL'Y (forthcoming 2021).

¹⁰ Peter H. Huang, *Anti-Asian Racism, Anti-Asian American Racism, COVID-19, Humor, and DEI*, U. Colo. L. Legal Stud. Res. Paper No. 20-41 (2021),

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3664356.

draws on psychologists Jose Chin Yong, Norman P. Li, and Satoshi Kanazawa's recent theory of people being not-so-much rational as rationalizing, and evolved to be coherence-seeking and fiction-making.¹¹

This introduction section concludes by observing the debate about whether men or women leaders have been more successful in responding to COVID-19 is itself far from being resolved. Two economists reported¹² finding that countries led by women fared better than countries led by men in terms of "COVID-cases and deaths in the first quarter of the pandemic."¹³ In support of their findings, these researchers cited existing research finding that women are more risk averse than men to loss of human lives, while men are more risk averse than women to economic losses;¹⁴ clear, decisive, and empathetic communication style;¹⁵ and "the proactive and coordinated policy responses" women leaders adopted in response to COVID-19.¹⁶

Three other social science researchers wrote a single page response to the above study,¹⁷ making seven critical observations.

¹¹ Jose C. Yong, Norman P. Li, & Satoshi Kanazawa, *Not So Much Rational but Rationalizing: Humans Evolved as Coherence-Seeking, Fiction-Making Animals*, AM. PSYCHOL. (2020), <http://dx.doi.org/10.1037/amp0000674>.

¹² Supriya Garikipati & Uma Kambhampati, *Are Women Leaders Really Doing Better on Coronavirus? The Data Backs it Up*, CONVERSATION (Aug. 28, 2020, 6:37 AM), <https://theconversation.com/are-women-leaders-really-doing-better-on-coronavirus-the-data-backs-it-up-144809>.

¹³ Supriya Garikipati & Uma Kambhampati, *Leading the Fight Against the Pandemic: Does Gender 'Really' Matter?* (June 3, 2020) (unpublished manuscript),

(<https://ssrn.com/abstract=3617953>).

¹⁴ *Id.* at 1.

¹⁵ *Id.* at 12-13.

¹⁶ *Id.* at 1, 14-15.

¹⁷ Torsten J. Selck, Ramona Amintavakoli, & Julia Bök, *Power to the Women? A Reply to Garikipati and Kambhampa* (Sept. 12, 2020) (unpublished manuscript),

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3694495.

First, because COVID-19 is ongoing, “the authors should have followed common practice and compared numbers after the 50th death per country.”¹⁸ Second, to make comparisons among countries meaningful, relative per capita numbers of COVID-19 cases and deaths should be utilized instead of absolute numbers.¹⁹ Third, the research in question reports the 19 countries led by women are less populated than the remainder of the sample of 194 countries, which implies that comparing absolute rather than relative deaths severely biases against more populated, male-led countries.²⁰ Fourth, without explanation of the selection process, the analysis focusing on COVID-19 deaths only compares 167 countries instead of the dataset of 194 countries mentioned in the researchers’ abstract.²¹ Fifth, the researchers exclude the United States, Germany, and New Zealand from their analysis “for the unconvincing reason that these countries have been in the ‘COVID-spotlight.’”²² Sixth, the research only tests for these control variables: “income per capita, population size, degree of urbanization and percentage of population over 65 years of age,”²³ and not “for the quality of public services, particularly the quality of the health care system, including the number of medical personnel per capita or the number intensive care beds per capita. Diagnostic tests are non-existent.”²⁴ Seventh, the researchers argue that the Poisson regression should have been applied instead of an ordinary least squares regression because COVID-19 deaths are considered count data.²⁵

Another study found that countries with women leaders did not apply as extensive shutdown measures or health responses over time

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.*

in response to COVID-19 when compared to men leaders.²⁶ That study did find that female-led OECD (defined below) countries enacted maximum shutdown measures significantly earlier than male-led OECD countries.²⁷ The Organization for Economic Cooperation and Development (OECD) was founded in 1961 as an intergovernmental economic organization of 37 member countries to promote economic progress and world trade.²⁸

A recent literature review of evidence from developed and developing countries speculated on why men have greater incidence, severity, and mortality rate of COVID-19 than women.²⁹ The differential response to COVID-19 between genders could be due to women having enhanced T-cell mediated immune responses and low androgen levels.³⁰ Another possible rationale is the increased risk of thromboembolic complications of COVID-19 infection in men, which is a major cause of morbidity and mortality.³¹ A final potential explanation is the behavioral differences between sexes, such as men smoking more than women³² and women being more likely than men to practice physical distancing due to concerns over the safety of their families and friends.³³

²⁶Mette Marie Staehr Harder & Christoffer Bugge Harder, *COVID-19 Response Strategies: Differences Between Strategies of Male and Female Heads of Governments?* (July 15, 2020) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3679608.

²⁷*Id.*

²⁸About OECD, <http://www.oecd.org/about/members-and-partners/>.

²⁹Naveera Khan et al., *Gender Differences in COVID-19: A Narrative Review* (Aug. 31, 2020) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3687984.

³⁰*Id.*

³¹*Id.*

³²*Id.*

³³*Id.*; Jewel Gausman & Ana Langer, *Sex and Gender Disparities in the COVID-19 Pandemic*, 29 J. WOMEN'S HEALTH 465 (2020).

A. GENDER UNBALANCED LEADERSHIP

Gender discrimination is pervasive in academia, as leadership remains gender unbalanced. The CEO of 20-first, a gender-balance consulting firm, Avivah Wittenberg-Cox, suggested in a TEDx talk that companies should learn to be gender bilingual, instead of being gender blind.³⁴ It is, sadly, unsurprising that people of all genders do not condemn the gender imbalance of leadership as problematic. It is a sad and unfortunate commentary about our current world that many women internationally, and even in the United States, still continue to face all these well-documented structural barriers and pervasive systemic obstacles to achieving and sustaining gender balanced leadership: (1) “admin”; (2) “emotional taxes”; (3) “gender jaws”; (4) “glass ceilings” (and relatedly, bamboo ceilings, canvas ceilings, and defensive glass ceilings); (5) “glass cliffs”; (6) “golden skirts”; and (7) “self-sidelining”. These phrases are defined and explained next.

Elizabeth F. Emens,³⁵ an Isidor and Seville Sulzbacher Professor of Law at Columbia Law School,³⁶ cleverly introduced the word “admin” to describe “the office type work—both managerial and secretarial—that it takes to run a life or a household.”³⁷ Examples of admin include: attending to benefits, medical, and insurance details; comparison shopping online; filling out forms; scheduling appointments; paying bills; planning births, funerals, and weddings; sending mail and packages; and writing to do lists. Emens notes that admin is often invisible,

³⁴ Avivah Wittenberg-Cox, *Gender Balance: A Strategic Imperative for Business?*, Apr. 30, 2019, TEDxHultLondon, YOUTUBE, <https://youtu.be/YVUAPzcGmxA>; see also AVIVAH WITTENBERG-COX & ALISON MAITLAND, WHY WOMEN MEAN BUSINESS: UNDERSTANDING THE EMERGENCE OF OUR NEXT ECONOMIC REVOLUTION (2009); AVIVAH WITTENBERG-COX, HOW WOMEN MEAN BUSINESS: A STEP BY STEP GUIDE TO PROFITING FROM GENDER BALANCED BUSINESS (2010).

³⁵ Elizabeth F. Emens, <https://www.elizabethemens.com/about>.

³⁶ Elizabeth F. Emens, Isidor and Seville Sulzbacher Professor of Law, Faculty page, <https://www.law.columbia.edu/faculty/elizabeth-f-emens>.

³⁷ Elizabeth F. Emens, *Admin*, 103 GEO. 1409, 1409 (2015); see also generally Elizabeth Emens, LIFE ADMIN: HOW I LEARNED TO DO LESS, DO BETTER, AND LIVE MORE (2019).

disproportionately burdensome for women, tends to be sticky—meaning it stays upon who it lands—and is undervalued.³⁸ Because admin requires attention, cognitive resources, and time, admin is costly and steals focus.³⁹ Admin also creates what Emens terms a “parallel shift” of work, done in tandem alongside play, sleep, and “9 to 5” work.⁴⁰ Admin is a cost many women leaders face that men leaders do not because women have traditionally taken care of their children and their parents.

The phrase “emotional tax” refers to “the state of being on guard—consciously preparing to deal with potential bias or discrimination.”⁴¹ Almost 60% of the women and men of color in a survey by the global non-profit organization, Catalyst,⁴² reported facing an emotional tax from feeling having to be ready to face and respond to gender and racial bias. Emotional taxes are inefficient because they distort actual or potential leader’s attention, energy, and time away from leadership decision-making or seeking leadership roles. Emotional taxes are also inequitable because they are borne by women and men of color.

The phrase “gender jaws” describes the shape of a typical graph with percentages of men and women (on the vertical axis from 0 to 100 percent) in a company and corporate seniority (on the horizontal axis from entry level to junior, management, senior management, and C-suite).⁴³ That graph often starts out balanced at 50/50 or already unbalanced at 70/30 at recruitment and then diverges to

³⁸ Emens, *supra* note 37, at 1409.

³⁹ *Id.* at 1448.

⁴⁰ *Id.* at 1414.

⁴¹ Dnika J. Travis & Jennifer Thorpe-Moscon, *Day-to-Day Experiences of Emotional Tax Among Women and Men of Color in the Workplace*, Catalyst Research Report 2, 4 (Feb. 15, 2018) <https://www.catalyst.org/research/day-to-day-experiences-of-emotional-tax-among-women-and-men-of-color-in-the-workplace/>.

⁴² *What We Do*, Catalyst, <https://www.catalyst.org/what-we-do/>.

⁴³ Avivah Wittenberg-Cox, *Managing Your Company’s Gender Jaws*, FORBES (June 5, 2018), <https://www.forbes.com/sites/avivahwittenbergcox/2018/06/05/managing-your-companys-gender-jaws/?sh=5fbc700795b9>.

80/20, 90/10, or 95/5 due to unbalanced gender promotion, retention, or ‘stickiness’ in middle management.⁴⁴

The phrase “glass ceiling” is a familiar metaphor that refers to:

an artificial barrier that prevents women and minorities from being promoted to managerial- and executive-level positions within an organization. The phrase glass ceiling is used to describe the difficulties faced by women when trying to move to higher roles in a male-dominated hierarchy. The barriers are most often unwritten, meaning that women are more likely to be restricted from advancing through accepted norms and implicit biases rather than defined corporate policies.⁴⁵

Five recent psychological studies “challenge[] the assumption that the presence of women in leadership positions will automatically “break the glass ceiling” for other women” and suggest that “overcoming gender imbalances in leadership may not be as simple as targeted placement, and that having women in high places should not induce complacency about the elimination of gender bias.”⁴⁶ Jane Hyun coined the similar phrase “bamboo ceiling” to describe the barriers many Asian Americans face in terms of racism and stereotypes in professional and leadership roles.⁴⁷

⁴⁴ *Id.*

⁴⁵ Julia Kagan, *Glass Ceiling*, INVESTOPEDIA (updated Oct. 24, 2019), <https://www.investopedia.com/terms/g/glass-ceiling.asp>.

⁴⁶ Francesca Manzi & Madeline E. Heilman, *Breaking the Glass Ceiling: For One and All?*, J. PERS. & SOC. PSYCHOL. 1 (2020).

⁴⁷ JANE HYUN, *BREAKING THE BAMBOO CEILING: CAREER STRATEGIES FOR ASIANS* (2006); *see also* Jennifer L. Berdahl & Ji-A Min, *Prescriptive Stereotypes and Workplace Consequences for East Asians in North America*, 18 CULTURAL DIVERSITY & ETHNIC MINORITY PSYCHOL. 141 (2012) (finding in experimental studies that East Asians who do not conform to racial stereotypes of being meek followers are more likely to be disliked by their co-workers); Anne Fisher, *Piercing the ‘Bamboo Ceiling,’* CNN MONEY, Aug. 8, 2005,

The related phrase “canvas ceiling” is a metaphor for “a systemic, multilevel barrier to refugee workforce integration and professional advancement.”⁴⁸ Recently, Georgia State University College of Law professor Anthony Michael Kreis⁴⁹ introduced the intriguing phrase “defensive glass ceiling”⁵⁰ to describe practices enacted in response to the #MeToo movement. Kreis also describes fears of “unsubstantiated sexual harassment claims, spousal jealousy, the inability to exercise self-control, or pressure from outside forces like insurers”⁵¹ that “isolate women and stunt their career trajectories while perpetuating sex stereotypes.”⁵²

The phrase “glass cliff” describes “a phenomenon wherein women tend to be promoted to positions of power during times of crises, when failure is more likely.”⁵³ Professors Michelle K. Ryan and Alexander Haslam of the University of Exeter, United Kingdom

https://money.cnn.com/2005/08/08/news/economy/annie/fortune_annie080805/index.htm; Anne Fisher, *Is There a ‘Bamboo Ceiling’ at U.S. Companies?* CNN MONEY, Oct. 7, 2011, <http://management.fortune.cnn.com/2011/10/07/asian-americans-promotion-us-companies/>; Michele Norris, *Looking at the ‘Bamboo Ceiling,’* NPR, July 5, 2011, <https://www.npr.org/2011/07/05/137631005/looking-at-the-bamboo-ceiling>; Hans Villarica, *Study of the Day: There’s a ‘Bamboo Ceiling’ for Would-Be Asian Leaders*, ATLANTIC, May 15, 2012, <https://www.theatlantic.com/health/archive/2012/05/study-of-the-day-theres-a-bamboo-ceiling-for-would-be-asian-leaders/257135/>.

⁴⁸ Eun Su Lee et al., *Unveiling the Canvas Ceiling: A Multidisciplinary Literature Review President of the United States of Refugee Employment and Workforce Integration*, 22 INT’L J. MGMT. REVS. 193 (2020).

⁴⁹ Anthony Michael Kreis, Georgia State University College of Law, faculty page, <https://law.gsu.edu/profile/anthony-kreis/>.

⁵⁰ Anthony Michael Kreis, *Defensive Glass Ceilings*, 88 GEO. WASH. L. REV. 147, 147 (2020).

⁵¹ *Id.* at 151.

⁵² *Id.* at 152.

⁵³ Julia Kagan, *Glass Cliff*, INVESTOPEDIA, updated Sept. 20, 2019, <https://www.investopedia.com/terms/g/glass-cliff.asp>; Susanna Whawell, *Women are Shattering the Glass Ceiling Only to Fall Off the Glass Cliff*, CONVERSATION, Apr. 12, 2018, <https://theconversation.com/women-are-shattering-the-glass-ceiling-only-to-fall-off-the-glass-cliff-94071>.

coined the phrase in their study of Financial Times Stock Exchange (FTSE) 100 companies.⁵⁴ Ryan and Haslam's archival and experimental research documented that once women break through the glass ceiling, their experiences differ from their men counterparts because women are more likely to become leaders in precarious times with a higher risk of failure—either because they are appointed to lead organizations in crisis or because they are not provided with the necessary resources and support for success.⁵⁵ An experimental study provides evidence of a glass cliff in the legal profession because law students were found to be more likely to assign a high-risk case to a female lead counsel rather than a male one.⁵⁶

The phrase “golden skirts” refers to an elite group of highly sought-after women who serve as independent directors on multiple corporate boards.⁵⁷ The nickname and phenomenon of golden skirts arose from Norway's mandate in 2003 that corporate boards have to be comprised of 40% women.⁵⁸ In the United States, the state of

⁵⁴ Michelle K. Ryan & S. Alexander Haslam, *The Glass Cliff: Evidence that Women are Over-Represented in Precarious Leadership Positions*, 16 BRIT. J. MGMT. 81 (2005).

⁵⁵ *Id.*

⁵⁶ Julie S. Ashby, Michelle K. Ryan & S. Alexander Haslam, *Legal Work and the Glass Cliff: Evidence that Women are Preferentially Selected to Lead Problematic Cases*, 13 WM. & MARY J. WOMEN & L. 775 (2007).

⁵⁷ Katica Roy, *Setting Up Women to Fail: The Glass Ceiling, Glass Cliff, and Golden Skirt*, MEDIUM (Apr. 26, 2018), <https://katicaroy.medium.com/setting-up-women-to-fail-the-glass-ceiling-glass-cliff-and-golden-skirt-50681f3e237>; Cathrine Seierstad & Tore Opsahl, *For the few not the many? The effects of affirmative action on presence, prominence, and social capital of women directors in Norway*, 27 SCAN. J. MGMT. 44 (2011).

⁵⁸ Morten Huse & Cathrine Seierstad, *Getting Women on to Corporate Boards: Consequences of the Norwegian Gender Balance Law*, EUR. FIN. REV. (Dec. 28, 2013), <https://www.europeanfinancialreview.com/getting-women-on-to-corporate-boards-consequences-of-the-norwegian-gender-balance-law/>; Catherine Seierstad et al., *Broadening of the Field of Corporate Boards and Legitimate Capitals: An Investigation into the Use*

California has enacted similar laws mandating gender⁵⁹ and minority⁶⁰ diversity of representation on boards of companies whose headquarters are located in California. The Nasdaq Stock

of Gender Quotas in Corporate Boards in Norway, WORK EMP. & SOC'Y (2020); Mariateresa Torchia et al., *Women Directors on Corporate Boards: From Tokenism to Critical Mass*, 102 J. BUS. ETHICS 299 (2012); Simona Comi et al., *Where Women Make A Difference: Gender Quotas and Firm Performance in Three European Countries*, 73 INDUST. AND LAB. REL. REV. 768 (2020); see also Nicola Clark, *Getting Women Into the Boardrooms*, by Law, N.Y. TIMES (Jan. 27, 2010), <https://www.nytimes.com/2010/01/28/world/europe/28iht-quota.html>; see generally GETTING WOMEN ON TO CORPORATE BOARDS: A SNOWBALL STARTING IN NORWAY (Silke Machold et al. eds., 2015).

⁵⁹ Cal. SB-826 Corporations: Board of Directors (2018), https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB826; Cal. Corp. Code § 301.3 (West 1975); Rachel Feintzeig, *California Law Spurs Companies to Add Female Directors*, WALL ST. J., Dec. 18, 2019; Iris Hentze, *Gender Diversity on Corporate Boards: What Will 2019 Bring?*, NAT'L CONF. ST. LEGIS. (Jan. 4, 2019),

<https://www.ncsl.org/blog/2019/01/04/gender-diversity-on-corporate-boards-what-will-2019-bring.aspx>; Richard Vernon Smith, *California Mandates Female Representation On Public Company Boards*, FORBES (Oct. 1, 2018),

<https://www.forbes.com/sites/allbusiness/2018/10/01/california-mandates-female-representation-public-company-boards/?sh=548e21e71775>.

⁶⁰ Cal. AB-979 Corporations: Boards of Directors: Underrepresented Communities, (2020), https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB979; David A. Bell et al., *New Law Requires Diversity on Boards of California-Based Companies*, HARV. L. SCH. F. CORP. GOVERNANCE (Oct. 10, 2020),

<https://corpgov.law.harvard.edu/2020/10/10/new-law-requires-diversity-on-boards-of-california-based-companies/>; Michael Peregrine, *California Ushers In A Bold New Era Of Board Diversity*, FORBES (Oct. 2, 2020),

<https://www.forbes.com/sites/michaelperegrine/2020/10/02/california-ushers-in-a-bold-new-era-of-board-diversity/?sh=1b32ea3f3955>; Anne Steele, *California Rolls Out Diversity Quotas for Corporate Boards*, WALL ST. J., Updated Oct. 1, 2020.

Market, also known as Nasdaq or NASDAQ⁶¹, recently asked the Securities Exchange Commission for approval to adopt a rule that requires the 3,249 companies listed on its main U.S. stock exchange to have at least one woman and one “diverse” director and report data on board diversity.⁶² Goldman Sachs CEO David Solomon announced that, effective July 1, 2020, it will only underwrite Initial Public Offerings (IPOs) in America and Europe for private companies that have at least one diverse board member.⁶³

Finally, law professor Leslie P. Culver,⁶⁴ while attending the Fulbright U.S. Scholars Program at the University of the Free State (UFS) in South Africa during the 2020-21 academic year,⁶⁵ coined the phrase “self-sidelining”⁶⁶ to describe when women “consciously or subconsciously discipline themselves to forgo their professional advancement.”⁶⁷

The paucity of women leaders is due partially to so many incompetent men becoming and remaining leaders. Why do so many companies, organizations, and societies choose incompetent men to be their leaders? Business psychology professor Tomas Chamorro-Premuzic offers these five reasons for why humble

⁶¹ NASDAQ is an American stock exchange ranked second on the list of stock exchanges by market capitalization of shares traded, behind only the New York Stock Exchange.

⁶² Andrew Ross et al., *Nasdaq Pushes for Diversity in the Boardroom*, N.Y. TIMES (Dec. 1, 2020), <https://www.nytimes.com/2020/12/01/business/dealbook/nasdaq-diversity-boards.html>.

⁶³ David Salomon, *Diverse Leadership Is Needed More Than Ever – Here’s What We’re Doing*, Feb. 4, 2020, <https://www.goldmansachs.com/what-we-do/investing-and-lending/launch-with-gs/pages/commitment-to-diversity.html>.

⁶⁴ Leslie P. Culver, <https://lesliepatrice.com/>.

⁶⁵ Leslie P. Culver, <https://www.law.uci.edu/news/in-the-news/2020/culver-fulbright.html>.

⁶⁶ Leslie P. Culver, *The Rise of Self-Sidelining*, 39 WOMEN’S L. RPTR. 173 (2018).

⁶⁷ *Id.* at 173.

leaders are rare:⁶⁸ (1) we mistake confidence for competence, (2) we are seduced by charisma,⁶⁹ (3) we are too lazy to evaluate talent, (4) we conflate arrogance with strength, and (5) we perceive humility to be a feminine attribute. Chamorro-Premuzic relatedly provides three reasons for why there are so many incompetent male leaders: (1) we confuse confidence for competence, (2) we find charisma seductive, and (3) we are drawn to narcissists.⁷⁰ A number of male leaders have been particularly bad and spectacularly incompetent at responding to COVID-19 due to their abuse of civil rights (more specifically, women's rights), arrogance, authoritarianism, contentious relationships with scientific experts and the media, corruption, incivility, lack of empathy, lawlessness, military mindset, overconfidence, poverty of imagination, and privileging of selfishness over the public interest.⁷¹

A sequence of experiments with over 4,000 people found “that women evaluate their performance less favorably than equally

⁶⁸ Tomas Chamorro-Premuzic, *Why Humble Leaders Are Rare*, FORBES (June 29, 2020), <https://www.forbes.com/sites/tomaspremuzic/2020/06/29/why-humble-leaders-are-rare/?sh=5eaf6860649b>.

⁶⁹ Mike Albo, *The Dark Side of Charisma*, IDEAS.TED.COM (Oct. 10, 2017), <https://ideas.ted.com/the-dark-side-of-charisma/>.

⁷⁰ TOMAS CHAMORRO-PREMUZIC, WHY DO SO MANY INCOMPETENT MEN BECOME LEADERS (AND HOW TO FIX IT) (2019); Tomas Chamorro-Premuzic, *Why Do So Many Incompetent Men Become Leaders? And What Can We Do About It?*, IDEAS.TED.COM, Jan. 9, 2020, <https://ideas.ted.com/why-do-so-many-incompetent-men-become-leaders-and-what-can-we-do-about-it/>; Tomas Chamorro-Premuzic, *Why Do So Many Incompetent Men Become Leaders?*, TEDxUniversityofNevada, YOUTUBE, Mar. 26, 2019,

<https://youtu.be/zeAEFEXvcBg>; Tomas Chamorro-Premuzic, *How to Spot an Incompetent Leader*, HARV. BUS. REV., Mar. 11, 2020, <https://hbr.org/2020/03/how-to-spot-an-incompetent-leader>.

⁷¹ Simon Tisdall, *From Trump to Erdoğan, Men Who Behave Badly Make the Worst Leaders in a Pandemic*, GUARDIAN, Apr. 26, 2020,

<https://www.theguardian.com/commentisfree/2020/apr/26/trump-to-erdogan-men-who-behave-badly-make-worst-leaders-pandemic-covid-19>.

performing men.”⁷² This documented gender gap in self-evaluations persists even after eliminating any gender gap in performance beliefs,⁷³ and eliminating any financial incentives to distort self-evaluations.⁷⁴ The gender gap in self-evaluations is robust with respect to participants knowing the average self-evaluations of others,⁷⁵ and to introducing a chance true performance is revealed.⁷⁶ The gender gap disappears if men and women evaluate other people rather than themselves,⁷⁷ which suggests that self-evaluations are driving the gender gap.⁷⁸ Because self-evaluations about ability and performance feature prominently in annual performance reviews, employment and school applications, and job interviews, a persistent and robust gender gap in self-evaluations explains gender gaps in economic and educational outcomes.⁷⁹ Because leaders are often chosen or elected based partly upon prospective leaders’ own self-evaluations, the gender gap in self-evaluations also explains how gender gaps in leadership can start and be sustained.

Mathematician Eugenia Cheng recently wrote a popular trade book advocating rethinking the very concept of gender based on her area of research specialty, category theory. In two video talks, Cheng explains how category theory can be helpful in life⁸⁰ to understand the world.⁸¹ In both talks, Cheng abstracts from the

⁷² Christine L. Exley & Judd B. Kessler, *The Gender Gap in Self-Promotion*, Nat’l. Bur. Econ. Res. Working Paper No. 26345, June 27, 2020, <https://www.nber.org/papers/w26345>.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ Lambda World, *Eugenia Cheng, Category Theory in Life*, YOUTUBE (Nov. 3, 2017), <https://youtu.be/ho7oagHeqNc>.

⁸¹ TEDx Talks, Eugenia Cheng, *How Abstract Mathematics Can Help Us Understand the World*, YOUTUBE (July 19, 2018), https://youtu.be/pUN_DP1pQtE.

prime factorization of a composite number to illustrate the concepts of privilege from gender, race, and sexual orientation.

Category theory is a general mathematical theory of structures and of systems of structure. In 1945, two mathematicians, Samuel Eilenberg and Saunders MacLane, introduced the concept of categories.⁸² Category theory has evolved to have a central position in modern mathematics, theoretical computer science, and quantum physics. Category theory offers a powerful language, or conceptual framework, to visualize universal components of a family of structures of a particular kind and how structures of different kinds are interrelated. Category theory is potentially a powerful formal tool for analyzing such concepts as truth, system, and space. Category theory also provides a different theoretical conception of sets and, as such, a possible alternative to standard set-theoretical foundations for mathematics. In doing so, category theory raises issues about ontology and epistemology.

Cheng advocates moving away from a set-theoretic way of thinking and examining intrinsic traits (for example, what do all men or all women have in common, to say nothing of nonbinary or gender-fluid people) and toward a category-theoretic approach of thinking about relationships. For example, how do certain character traits group humans together? These may have cultural association or statistically observed frequency in one gender or another but are not exclusive to a particular gender. Cheng focuses on what people who prize the individual over community have in common, and conversely, what people who prize community over the individual have in common. In this way, she moves away from observations like “not all men are competitive,” or “not all women are shy about speaking up in class,” and other arguments about innate versus socialized gender. This further becomes a more productive way of thinking about where independence and competition are useful versus where collaboration and cooperative behavior are helpful. Additionally, this will continue to reward people who adopt such

⁸² Samuel Eilenberg & Saunders MacLane, *General Theory of Natural Equivalences*, 58 TRANS. AM. MATH. SOC'Y 231, 237 (1945).

competitive behaviors by showing how current power structures favor competition and winner-takes-all approaches.

Harvard Business School professor Leitan Zhang⁸³ studied 1,069 leading publicly traded firms across 24 industries in 35 countries and found that gender diversity was correlated with companies that had greater market value and revenue only in situations where there is a pervasive cultural norm of gender diversity being important.⁸⁴ This means people's beliefs about gender diversity being crucial creates a virtuous self-fulfilling cycle.⁸⁵ Countries and industries in which individuals value gender diversity also benefit from gender diversity.⁸⁶ Countries and industries where people fail to value gender diversity also fail to benefit from gender diversity.⁸⁷ Positive benefits of gender diversity only happened when there was normative acceptance, as opposed to regulatory support, of working women.⁸⁸

Zhang found evidence of three reasons why gender diversity beliefs matter to efficacy of gender diversity.⁸⁹ First, talented workers view gender diversity to be a signal of an attractive workplace.⁹⁰ Second, valuing gender diversity fosters psychological safety for people to contribute diverse, innovative ideas.⁹¹ Third, investors view gender diversity to be a signal of competent, well-run corporate management.⁹² Zhang's research suggests a tantalizing possibility that gender diversity can make a difference to political leadership countries where people believe that gender diversity matters and is valuable.

⁸³ Harv. Bus. Sch., *Letian Zhang, Faculty Profile*, Harv. Bus. Sch.: Faculty Profiles (Feb. 24, 2021, 3:52 PM), <https://www.hbs.edu/faculty/Pages/profile.aspx?facId=1047757>.

⁸⁴ See Zhang, *supra* note 7, at 439.

⁸⁵ *Id.* at 439.

⁸⁶ *Id.* at 439.

⁸⁷ *Id.* at 439.

⁸⁸ *Id.* at 439.

⁸⁹ Turban, Wu, & Zhang, *supra* note 7.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.*

In another study⁹³ involving a nationally representative sample of 37,343 mergers and acquisitions from 1971 to 2015 in the United States, Zhang found that mergers and acquisitions “significantly reduce the proportion of white men in management, increase the proportion of racial minorities and women in management, and decrease overall racial and gender segregation”⁹⁴ in the acquired firm. These impacts are larger when (a) the acquiring firm values gender and racial diversity more and (b) the acquired firm had more gender and racial inequality.⁹⁵ Zhang develops a theory about how disruptive events can improve organizational equality and hypothesizes that gender and racial inequality persists and is reinforced by organizational structures and practices. Zhang’s theory suggests disruptive events that shake up existing hierarchies and disrupt organizational cultures and routines should offer women and racial minorities increased opportunities for advancement.

Zhang’s empirical research suggests that norms that value or disvalue gender and racial diversity can be self-fulfilling. A psychological game-theoretic model demonstrates how multiple equilibrium outcomes can correspond to certain social norms and organizational cultures or their absence.⁹⁶ To move from a psychological equilibrium where people believe that gender and racial diversity does not matter to a psychological equilibrium where people believe that gender and racial diversity does matter requires changing social norms or organizational cultures. COVID-19 might be an example of such a disruptive event that changes people’s beliefs about gender and racial diversity, social norms and organizational cultures.

⁹³ Letian Zhang, *Shaking Things Up: Unintended Consequences of Firm Acquisitions on Racial and Gender Inequality* (Harv. Bus. Sch. Working Paper, No. 20-022, 2019), <https://www.hbs.edu/faculty/Pages/item.aspx?num=56659>.

⁹⁴ *Id.* at 32.

⁹⁵ *Id.*

⁹⁶ Peter H. Huang & Ho-Mou Wu, *More Order without More Law: A Theory of Social Norms and Organizational Cultures*, 10 J.L. ECON. & ORG. 390, 391 (1994).

B. *DO PEOPLE CARE ABOUT SUCCESSFUL WOMEN
LEADERS?*

An intriguing, recent model of information acquisition and avoidance is based on the observation that information can positively and negatively change people's action, affect, and cognition.⁹⁷ This essay suggests naming this model "information revises action, affect, and cognition," abbreviated as IRAAC. This acronym is proposed in honor of, and similar to, the well-known acronym of IRAC, which stands for "issue, rule, analysis or application, and conclusion."⁹⁸ The IRAC method of legal analysis, or some variation of it with some permutation of the letters in the acronym, is familiar to law students from their legal writing course in the first year of law school.⁹⁹

The IRAAC model of information preferences proposes that individuals evaluate information based on three dimensions of value. First, the decision-making, instrumental, or usefulness value of information. Second, the affective, emotional, or hedonic value of information. Third, the cognitive, mental model, or sense-making value of information. People then combine these component valuations of information by creating a weighted sum of the three individual valuations and depending on the sign of that weighted sum to decide whether to acquire (positive weighted sum), avoid (negative weighted sum), or be indifferent to (zero weighted sum) information.¹⁰⁰ Different individuals may attach different personal weights to each dimension of information value depending on how much each type of information value matters to them. Additionally, the same individual may place different weights over time or contexts on each dimension of information value depending on how

⁹⁷ Sharot & Sunstein, *supra* note 8, at 14.

⁹⁸ Tracy Turner, *Flexible IRAC: A Best Practices Guide*, 20 LEGAL WRITING J. 233, 233 (2015).

⁹⁹ Tracy L. Turner, *Finding Consensus in Legal Writing Discourse Regarding Organizational Structure: A Review and Analysis of the Use of IRAC and Its Progenies*, 9 LEGAL COMM. & RHETORIC 351 (2012).

¹⁰⁰ Sharot & Sunstein, *supra* note 8, at 14.

much each type of information value matters to an individual at various times or in alternative contexts.

In the context of information about people of a different gender or sexual orientation, some individuals place large weights on emotionally negative or cognitively negative, identity-threatening aspects of information value and much less weight on the decision-making behavior change aspect of information value. Such an individual may choose to avoid information about, and contact with, people with a different gender or sexual orientation. A change in such an individual's information preferences about people of different gender or sexual orientation can be accomplished by humor causing the affective value of information to switch from negative to positive or humor changing the cognitive aspect of information value from negative, identity-threatening to neutral or positive. In doing so, humor could lead such an individual then to choose to switch from avoiding to acquiring or being receptive to information about, and contact with, people with a different gender or sexual orientation. The IRAAC model of information preferences thus can explain how humor offers a non-adversarial, non-confrontational, and non-threatening way to engage and reject gender or sexual orientation.

*C. PEOPLE ARE NOT-SO-MUCH RATIONAL AS
RATIONALIZING*

Psychologists Jose Chin Yong, Norman P. Li, and Satoshi Kanazawa's recently provide evidence for humans being not so much rational as rationalizing and evolved to be coherence-seeking and fiction-making animals.¹⁰¹ They offer evidence that rationalizing is a uniquely human trait among animals.¹⁰² They also argue "that rationalization processes (e.g., cognitive dissonance reduction, post hoc justification of choices, and confabulation of reasons for moral positions) are aimed at creating the fictions we prefer to believe and maintaining the impression that we are

¹⁰¹ Yong, Li, & Kanazawa, *supra* note 11.

¹⁰² *Id.* at 1.

psychologically coherent and rational.”¹⁰³ They observe that coherence “appears to be prioritized at the expense of veridicality, suggesting that distorted perceptions and appraisals can be adaptive for humans—under certain circumstances, we are better off understanding ourselves and reality not so accurately.”¹⁰⁴ Their novel perspective on humanity explains how and why humans like to tell stories and narratives that fit together more than being necessarily accurate. This view of humanity also means that shared beliefs, ideologies, and norms about gender and ethnicity or race can be fundamentally wrong yet persist if those beliefs, ideologies, and norms are coherent. Humor has the power to show that racist beliefs, ideologies, and norms are incoherent. Humor also can facilitate the dissemination and adoption of alternative coherent beliefs, ideologies, and norms that are neither sexist nor racist.

D. MINDFULNESS, LEADERSHIP, AND GENDER

There is a large and still expanding literature about how mindfulness practice can improve leadership.¹⁰⁵ There is also evidence that playing video games can help improve decision-making in general,¹⁰⁶ and in responding to COVID-19 in particular.¹⁰⁷ This essay advocates teaching everyone, particularly women and minorities, about leadership, mindfulness, and other related practical skills, such as: emotional intelligence, happiness,

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ See, e.g., Peter H. Huang, *Can Practicing Mindfulness Improve Lawyer Decision-Making, Ethics, and Leadership?*, 55 HOUS. L. REV. 63, 125-46 (2017).

¹⁰⁶ See, e.g., Peter H. Huang, *Achieving American Retirement Prosperity by Changing Americans' Thinking About Retirement*, 22 STAN. J.L. BUS. & FIN. 189, 247-50 (2017); Peter H. Huang, *Boost: Improving Mindfulness, Thinking, and Diversity*, 10 WM. & MARY L. REV. 139, 184-90 (2018).

¹⁰⁷ Sara Frueh, *Putting Games to Work in the Battle Against COVID-19*, NAT'L ACAD. SCI., ENG., MED., Nov. 2, 2020, <https://www.nationalacademies.org/news/2020/11/putting-games-to-work-in-the-battle-against-covid-19>; IndieCade & Rick Thomas, *Jamming the Curve*, ITCH.IO, <https://itch.io/jam/jamming-the-curve>.

judgement, decision-making, logical thinking, political numeracy, scientific literacy, and conflict resolution.

For example, a non-profit, live, and online mini-MBA program, *Girls with Impact*,¹⁰⁸ is designed to “equip[] girls with the skills, knowledge and confidence to become the leaders, entrepreneurs and innovators of tomorrow.”¹⁰⁹ Among the skills that students learn are:¹¹⁰ budgeting, leveraging social media, making an elevator pitch, making powerful presentations, marketing, minimum viable product,¹¹¹ networking, and SWOT (strength, weakness, opportunity, and threat) analysis.¹¹² A YouTube video shows three graduates of the *Girls with Impact* program discuss how the skills they learned in the program empowered them and changed their lives.¹¹³

II. CONCLUSIONS

Behavioral economics research provides pragmatic policies to design institutions to achieve gender equality.¹¹⁴ This essay suggests complementing such behaviorally informed institutional

¹⁰⁸ GIRLS WITH IMPACT, <https://www.girlswithimpact.org/the-academy>.

¹⁰⁹ GIRLS WITH IMPACT, <https://www.girlswithimpact.org/>.

¹¹⁰ GIRLS WITH IMPACT, <https://www.girlswithimpact.org/i-am-a-parent>.

¹¹¹ Richard Becker, *Minimum Viable Prod. (MVP)*, TECHOPEDIA (Aug. 14, 2020), <https://www.techopedia.com/definition/27809/minimum-viable-product-mvp>.

¹¹² See, e.g., Mitchell Grant, *Strength, Weakness, Opportunity, and Threat (SWOT) Analysis*, INVESTOPEDIA (Feb. 24, 2020), <https://www.investopedia.com/terms/s/swot.asp>.

¹¹³ Girls With Impact, *Kellie, Jody and Saccnicte -- Three Teens Say “No” to Old Stigmas and “Yes” to Feeling Powerful*, YOUTUBE (June 20, 2019), <https://youtu.be/IFuXyZAKuUo>.

¹¹⁴ IRIS BOHNET, *WHAT WORKS: GENDER EQUAL. BY DESIGN* (2018); see also Christopher Litsinger, *Book Report: Iris Bohnet’s What Works: Gender Equal. by Design*, INTERIORITY (Dec. 5, 2017), <https://interiority.org/book-report-iris-bohnets-what-works-gender-equality-by-design/>.

design policies with changing social norms and organizational cultures about gender and racial diversity. This essay also advocates teaching all people, especially women and minorities, leadership skills and mindfulness practice. Since the keynote speech on which this essay is based, the United States has elected its first woman, first African-American, and first Asian-American Vice President. Thus, the Sheryl Crow's song, *Woman in the White House*¹¹⁵ has finally come true in real life. This essay hopes that one day soon, there will also be a woman in the White House as President of the United States. This essay also further develops the author's proposed analytical perspective¹¹⁶ to bias, discrimination, prejudice, and stereotyping as projections of high dimensional people into subspaces of lower observable dimensions by analytically modeling the notion of developing empathy through paradigm-shifting or perspective-pivoting.

¹¹⁵ SHERYL CROW, *WOMAN IN THE WHITE HOUSE* (Big Machine Label Group, LLC 2020), <https://sherylcrow.com/2020/08/10/woman-in-the-white-house-official-video/>.

¹¹⁶ Huang, *supra* note 10, at Appendix.

DIVERSITY IN AUTOMATION: HOW ARE DIFFERENT LEGAL REGIMES LOOKING TO REGULATE USERS OF AUTOMATED VEHICLES?

Lucas Barnard

I.	INTRODUCTION.....	73
II.	OVERVIEW OF AUTOMATED VEHICLE TECHNOLOGY AND POTENTIAL RISKS/BENEFITS	74
	A. <i>WHAT IS AN AUTOMATED VEHICLE?</i>	74
	B. <i>BENEFITS AND RISKS OF AUTOMATED CAR TECHNOLOGY</i>	77
	1. Benefits	77
	2. Risks; Costs.....	78
	C. <i>ARE THEY LEGAL?</i>	79
	1. 1949 and 1968 Road Traffic Conventions	79
	2. UNECE Global Forum on Road Traffic Safety	81
III.	REGULATING USERS – SAE LEVELS 0-3	81
	A. <i>DRIVER LICENSING & TRAFFIC RULES</i>	82
	B. <i>EXPECTATION OF RESPONSIVENESS TO VEHICLE SIGNALS</i>	85
	C. <i>REASONABLE CARE</i>	90
IV.	REGULATING USERS – SAE LEVELS 4-5	91
	A. <i>LICENSING VS. AUTOMATED DRIVING SYSTEM DRIVERLESS CERTIFICATION</i>	91
	B. <i>SHIFT FROM USER TO MANUFACTURER AND OWNER RESPONSIBILITIES</i>	94
V.	DIFFERENCES IN DEFINING A USER OF AN AUTOMATED VEHICLE.....	98
	A. <i>UNITED KINGDOM LAW COMMISSIONS – THE CASE FOR USER-IN-CHARGE</i>	99
	1. User-in-Charge-Vehicles.....	99
	2. No User-in-Charge Vehicles (NUICs)	100
	3. Automated Driving System Entity (ADSE)	101

*B. UNIFORM LAW COMMISSION – THE CASE FOR
AUTOMATED DRIVING PROVIDERS*..... 101

C. WHY NOT BOTH? 104

 1. Automated Driving Definitions Proposal:..... 104

VI. CONCLUSION..... 106

I. INTRODUCTION

Bioengineering DNA tools,¹ artificial intelligence,² and computer-brain interface,³ oh my... As architect Frank Lloyd Wright stated, “[i]f automation keeps up, man will atrophy all his limbs but the push-button finger.”⁴ These futuristic technologies, accompanied by automated vehicles, are upon us. As is the case with the advancement of any technology, old problems may be solved while new ones are created. New waves of excitement are mirrored by the awesome weight of uncertainty.

This note will address several topics, such as a general introduction to automated vehicle technology and the potential benefits and risks; however, the main focus is to analyze how legislative attempts to regulate automated vehicles around the world impact users of this technology. As will be seen throughout this note, the novel question breaks down to:

What requirements and expectations will be put on drivers (users) of automated vehicles and how will governments seek to regulate those expectations?

Due to the various complexities and functionalities of this technology and the vast number of legal systems throughout the world, it can be expected that differing approaches will be taken to answer this question. This note seeks to analyze how current legal

¹ Xinyi Wan, *DNA sponge as a versatile tool to fine tune gene circuits*, *Nature News* (2020), <https://bioengineeringcommunity.nature.com/posts/synthetic-dna-sponge>.

² Edd Gent, *Artificial intelligence is evolving all by itself*, *Science* (Apr 13, 2020).

³ Leah Crane, *Elon Musk demonstrated a Neuralink brain implant in a live pig* *New Scientist* (2020), <https://www.newscientist.com/article/2253274-elon-musk-demonstrated-a-neuralink-brain-implant-in-a-live-pig/>.

⁴ Phillip Adler, *Push Them as Hard as You Are Able in Bridge*, *SUNDAY SPRINGFIELD NEWS-LEADER* (Dec. 14, 2014).

regimes have begun addressing this notion, as well as a new proposal.

II. OVERVIEW OF AUTOMATED VEHICLE TECHNOLOGY AND POTENTIAL RISKS/BENEFITS

A. *WHAT IS AN AUTOMATED VEHICLE?*

In a way, all vehicles could be considered to have some level of automation. Whether it be a basic function such as a switch to start an engine or a pedal to slow down speed, automation within a vehicle completes a task that the user does not have to complete herself. When the user inserts a key into a car ignition and turns it, she is not physically causing the pistons to compress or creating combustion⁵ with her fingers; she is simply completing a basic task to set the automated, more complicated task within the vehicle in motion.

As vehicles have advanced throughout history, so equally have the tasks automated.⁶ Automation of vehicles allows users to operate the components of a machine without needing a full understanding of the underlying processes taking place. Turning on, driving, and parking a motor scooter do not require a user to have a complex understanding of thermodynamics or physics; however, it does require a user to understand how their tasks (or inputs) affect the scooter in real-time. For example, if the user moves her left arm forward, the front wheel turns right, moving the scooter in a different direction. The movement of the user's arm is the input, and the resulting movement of the tire is the output created by the vehicle. These inputs, commonly referred to as the "dynamic driving task"

⁵ *Internal Combustion Engine Basics*, ENERGY.GOV (2021), <https://www.energy.gov/eere/vehicles/articles/internal-combustion-engine-basics>.

⁶ Blake Z. Rong, *The Evolution of the Combustion Engine*, POPULAR MECHANICS (2018), <https://www.popularmechanics.com/cars/car-technology/a19854205/the-evolution-of-the-combustion-engine/> (last visited Jan. 12, 2021).

(DDT),⁷ represent a lot of what the user is able to control such as steering, braking, accelerating, etc.

In this light, this note seeks to explore how the law intersects with different “levels” of user inputs in vehicles required to produce anticipated outputs, specifically relying on the levels created by SAE International.⁸ These levels allow for common terminology used by all in the field and are defined on the following chart:

⁷ See SAE INT’L, J3016: TAXONOMY AND DEFINITIONS FOR TERMS RELATED TO ON-ROAD MOTOR VEHICLE AUTOMATED DRIVING SYSTEMS (Jan. 16, 2014) (latest revision June 15, 2018) [hereinafter SAE J3016].

⁸ See SAE J3016, *supra* note 7.

Level	Name	Narrative definition	DDT		DDT fallback	ODD
			Sustained lateral and longitudinal vehicle motion control	OEDR		
Driver performs part or all of the DDT						
0	No Driving Automation	The performance by the <i>driver</i> of the entire DDT, even when enhanced by <i>active safety systems</i> .	<i>Driver</i>	<i>Driver</i>	<i>Driver</i>	n/a
1	Driver Assistance	The <i>sustained</i> and ODD-specific execution by a <i>driving automation system</i> of either the <i>lateral</i> or the <i>longitudinal vehicle motion control</i> subtask of the DDT (but not both simultaneously) with the expectation that the <i>driver</i> performs the remainder of the DDT.	<i>Driver and System</i>	<i>Driver</i>	<i>Driver</i>	Limited
2	Partial Driving Automation	The <i>sustained</i> and ODD-specific execution by a <i>driving automation system</i> of both the <i>lateral</i> and <i>longitudinal vehicle motion control</i> subtasks of the DDT with the expectation that the <i>driver</i> completes the OEDR subtask and <i>supervises the driving automation system</i> .	System	<i>Driver</i>	<i>Driver</i>	Limited
ADS ("System") performs the entire DDT (while engaged)						
3	Conditional Driving Automation	The <i>sustained</i> and ODD-specific performance by an ADS of the entire DDT with the expectation that the DDT fallback-ready user is <i>receptive to ADS-issued requests to intervene</i> , as well as to DDT performance-relevant system failures in other vehicle systems, and will respond appropriately.	<i>System</i>	System	<i>Fallback-ready user (becomes the driver during fallback)</i>	Limited
4	High Driving Automation	The <i>sustained</i> and ODD-specific performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to <i>intervene</i> .	<i>System</i>	<i>System</i>	System	Limited
5	Full Driving Automation	The <i>sustained</i> and unconditional (i.e., not ODD-specific) performance by an ADS of the entire DDT and DDT fallback without any expectation that a user will respond to a request to <i>intervene</i> .	<i>System</i>	<i>System</i>	<i>System</i>	Unlimited

B. BENEFITS AND RISKS OF AUTOMATED CAR TECHNOLOGY

I. Benefits

There are many potential benefits associated with automated vehicles, such as reduced insurance costs,¹⁰ travel time,¹¹ and fuel economy;¹² however, benefits are not only correlated with efficiency and cost-effectiveness but also safety. The United States Department of Transportation (USDOT) predicts that the furtherance of automated vehicles will contribute to a drastic decrease in traffic deaths, as the great majority (around 94%) of serious motor vehicle crashes are due to some element of human error.¹³ Further, lots of research has indicated that automated vehicle technology could lower harmful emissions created by road traffic up to 60%.¹⁴

⁹ *Id.* at 17.

¹⁰ Stanley, Karlyn D., Michelle Gris  & James M. Anderson, *Autonomous Vehicles and the Future of Auto Insurance*, Santa Monica, Calif.: RAND Corporation, RR-A878-1, https://www.rand.org/pubs/research_reports/RRA878-1.html.

¹¹ Eckhard Szimba & Martin Hartmann, *Assessing travel time savings and user benefits of automated driving – A case study for a commuting relation*, TRANSPORT POLICY, VOL. 98, 2020, 229-237, ISSN 0967-070X, <https://doi.org/10.1016/j.tranpol.2020.03.007>.

¹² Jooyong Lee, *Energy Implications of Self-Driving Vehicles*, THE UNIVERSITY OF TEXAS AT AUSTIN DEPARTMENT OF CIVIL ENGINEERING, Presented at the 98th Annual Meeting of the Transportation Research Board (Jan. 2019).

¹³ *Automated Vehicles for Safety*, NHTSA (2020), <https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety>.

¹⁴ *The Future of Driving in the United States*, OHIO U. (2020), <https://onlinemasters.ohio.edu/blog/the-future-of-driving/>.

2. *Risks; Costs*

As with all technological innovations, the potential benefits associated with automated vehicles are met with increased costs and risks. The sheer extent of the technology implies a higher product cost to consumers for the immediate future¹⁵ and the technical skills needed to perform maintenance on the vehicles will require further knowledge and education.¹⁶ Along with the monetary setbacks, the data available to the vehicles will lack at the beginning and will grow over time.¹⁷

For example, if an automated vehicle is driving through snow without any inputs from the user, it will need to learn to do so for the first time before that data can be shared with the other vehicles. These first experiences without user interface create risks (which could potentially be avoided by data tracking of similar situations while users are still responsible for inputs).¹⁸ Lastly, many professions that rely on user inputs in vehicles could be displaced by the furtherance of automated vehicles.¹⁹ Truckers,²⁰ Uber

¹⁵ This is assuming a traditional car ownership model, not one based on a commercial, per-ride basis.

¹⁶ *The Effect of Autonomous Vehicles on Education*, UPCEA (Dec. 2017).

¹⁷ *Artificial Intelligence in the automotive industry*, ACEA (Nov. 2020), https://www.acea.be/uploads/publications/ACEA_Position_Paper-Artificial_Intelligence_in_the_automotive_industry.pdf.

¹⁸ Grace Strickland, John McNelis, *Autonomous vehicle reporting data is driving AV innovation right off the road*, TECHCRUNCH (2020), <https://techcrunch.com/2020/08/04/autonomous-vehicle-reporting-data-is-driving-av-innovation-right-off-the-road/> (last visited Jan 10, 2021).

¹⁹ *Stick Shift: Autonomous Vehicles, Driving Jobs, and the Future of Work*, CENTER FOR GLOBAL POLICY SOLUTIONS (2017).

²⁰ *Id.*

drivers,²¹ pilots²² and train conductors²³ are all examples of potential lost job markets as this technology progresses.

C. ARE THEY LEGAL?

1. 1949 and 1968 Road Traffic Conventions

The 1949 Geneva Convention on Road Traffic (Geneva Convention) created minimum traffic regulations purposed to allow some sort of uniformity for international travelers.²⁴ As vehicle technology advanced rapidly in the past decade, the question arose as to whether higher levels (SAE Levels 3-5) of automated driving technology conformed to the Geneva Convention's rules.²⁵ Specifically, Article 8 of the Geneva Convention relies on human "control"²⁶ of a vehicle and "to control" annotationally means "to exercise restraint or direction upon the free actoin of; to hold sway over, exercise power or authority over; to dominate, command."²⁷ One scholar, Professor Bryant Walker-Smith of the University of South Carolina School of Law, notes three conclusions about the nature of automated vehicle control as it pertains to Article 8 of the First Convention:

²¹ *Id.*

²² Stephen Rice & Scott Winter, *Despite Passenger Fears, Automation is the Future of Aviation*, DISCOVER MAGAZINE (2019), <https://www.discovermagazine.com/technology/despite-passenger-fears-automation-is-the-future-of-aviation>.

²³ Jack Karsten, *Emerging technology can replace workers - or train them for new work*, BROOKINGS INSTITUTE (2019), <https://www.brookings.edu/blog/techtank/2019/08/29/emerging-technology-can-replace-workers-or-train-them-for-new-work/>.

²⁴ Convention on Road Traffic, Geneva, Sept. 19, 1949, 3 U.S.T. 3008, 125 U.N.T.S. 3 [hereinafter Geneva Convention].

²⁵ B.W. Smith, *Automated Vehicles Are Probably Legal in the United States*, 1 TEX. A&M L. REV. 411 (2013) [hereinafter Smith].

²⁶ Although the Convention relies on control, it refrains from defining it in any meaningful way.

²⁷ Geneva Convention, *supra* note 24.

- 1) The designation of a driver for liability purposes does not alone satisfy Article 8;
- 2) Being able to “control” does not mean actively exercising that control; and
- 3) Control is limited by the characteristics of that which is being controlled.²⁸

After the First Convention, another treaty was passed at the 1968 Vienna Convention on Road Traffic (Vienna Convention) that continues to guide much of the world’s traffic legislation today.²⁹ Also being a source as to the potential legality of automated vehicle technology, Article 13 of the Vienna Convention provides that, “[e]very driver of a vehicle shall in all circumstances have his vehicle under control so as to be able to exercise due and proper care and to be at all times in a position to perform all maneuvers required of him.”³⁰ This “due and proper care” wording widens the parameters for what might possibly be considered control in this context. One possible definition given by a United States court and reiterated Professor Bryant Walker-Smith is that “the essence of ‘control’ is nothing less than the power to determine the scope, range, or effect of a given activity.”³¹

2. *UNECE Global Forum on Road Traffic Safety*

The only permanent intergovernmental body of the United Nations dedicated to road safety adopted a non-binding resolution (WP.1) in September 2018 that adapted principles set forth in both the 1949 and 1968 Conventions on Road Traffic.³² The resolution

²⁸ Smith at 439-440, *supra* note 25.

²⁹ Vienna Convention on the Law of Treaties, art. 31, May 23, 1969, 1155 U.N.T.S. 331, 8 I.L.M. 679.

³⁰ *Id.*

³¹ See Smith, *supra* note 25, citing *Axcelis Techs. v. Applied Materials, Inc.*, 66 U.S.P.Q.2d 1039, No. CIV.A 01- 10029DPW, 2002 WL 31761283, at *6 (D. Mass. Dec. 10, 2002).

³² See generally *UNECE adopts resolution on the deployment of highly and fully automated vehicles in road traffic*, UNECE (2018), <https://unece.org/press/unece-adopts-resolution-deployment-highly-and-fully-automated-vehicles-road-traffic>.

seeks to offer guideposts related to safe interaction of all vehicles, including automated vehicle technology, and the immense importance of human intervention and adaptability (either as drivers or users).³³ Luciano Iorio, Chair of the resolution, stated “[w]ith this resolution, we adapt the guiding principles of the 1949 and 1968 Conventions on Road Traffic to today’s environment, paving the way for the safe mobility of the future, for the benefit of all road users.”³⁴

Although many commentators have acknowledged and called for the review of the previous Conventions under this new framework, the international community now seems to be in agreement that automated vehicle technology is not only legal, but a vital instrument in the future of safe transportation.

III. REGULATING USERS – SAE LEVELS 0-3

Over time, as both the number and outputs of vehicles have increased (faster acceleration/velocity, precision braking/turning, etc.), legislators enacted regulations of user expectations. Laws including user tasks such as turn signals, headlights, lane changes, and many others were passed to create a system of expectations on users to be followed to further notions of safety and efficiency.

Currently, the most common type of vehicles on roadways are deemed to be at SAE Level 0, in which the vehicle may only notify the user of extenuating circumstances and does not take corrective action; however, this is changing, as a report from the International Data Corporation (IDC) now forecasts that SAE Level 1 vehicles will grow at an 11.5% compound growth rate until 2024.³⁵ Further, the report estimates that more than 50% of all vehicles being

³³ *Id.*

³⁴ *Id.*

³⁵ Hope Reese, *Level 1 autonomous vehicles will jump by more than 11% in five years, according to a new report*, TECHREPUBLIC (2020), <https://www.techrepublic.com/article/level-1-autonomous-vehicles-will-jump-by-more-than-11-in-five-years-according-to-a-new-report/>.

produced by 2024 will represent SAE Levels 1-5.³⁶ With the greatest increase in automated vehicles representing SAE Levels 1-3 in coming years, legislators are first charged with the task of addressing whether current laws and user expectations are adequately positioned to adapt with new technologies.

A. DRIVER LICENSING & TRAFFIC RULES

In 1903, Missouri and Massachusetts became the first US states to pass legislation regarding driver's licenses to operate motor vehicles.³⁷ Five years later in 1908, the year Henry Ford launched the Model T, Rhode Island became the first state to test potential drivers before issuing licenses.³⁸ Fast forward to today and it can be seen that most traffic regulatory bodies around the world enlist a driver's licensing requirement.

Under SAE Level 0, users perform all of the dynamic driving task, making it imperative that they retain the wherewithal to carry out these tasks. To provide a baseline presumption of that wherewithal, many governments use licensing as an opportunity to test user aptitude and skill for driving. Many regimes have vision requirements, pre-licensing supervised driving hours, rules of the road tests, age requirements, etc.

As vehicles move toward full automation, it may be possible that some or all of these requirements and expectations placed on users will no longer be advantageous to public safety goals. However, at SAE Levels 1-2 automated vehicles are only taking over dynamic driving task for a short period of time, usually to complete one specific function such as parking, staying in a lane at a certain speed or automatically engaging windshield wipers. Due to these reasons, it is unlikely that any legal regime would begin

³⁶ *Id.*

³⁷ Elizabeth Nix, *When was the first U.S. driver's license issued?*, HISTORY.COM (2016), <https://www.history.com/news/when-was-the-first-u-s-drivers-license-issued>.

³⁸ *State Transportation Websites*, FHWA.GOV (2021), <https://www.fhwa.dot.gov/ohim/summary95/dl230.pdf/>.

looking to curb user licensing requirements until the vehicles reach at least SAE Level 3.

In Australia, the National Transport Commission (NTC) issued a report in 2018 in which the Commission took a deep look at potential stakeholders and issues of the coming technological traffic transformation.³⁹ Much like the United States regulatory system, much of the legislation regarding traffic laws in Australia is driven by individual states and territories. The goal of the NTC report was to set a foundation for an end-to-end regulatory system, which at the time NTC hoped would be deployed by 2020.⁴⁰ Section 6.2 of the NTC's report discusses obligations on users operating a "conditional automated driving system" (likely meaning duties under SAE Level 3).⁴¹

The report coins the term 'fallback-ready user' to explain how users of automated vehicles are expected to act in scenarios when the vehicle is unable to perform the dynamic driving task required for safe travel.⁴² The following are the expectations placed on fallback-ready users in the report:

- 1) Must remain sufficiently vigilant to acknowledge the transition demand and acknowledge vehicle warnings, mechanical failure or emergency vehicles (consistent with guidance under development by WP.29).
- 2) May avert their attention from the dynamic driving task and perform secondary activities but must remain sufficiently vigilant to regain control of the vehicle without undue delay, when required.

³⁹ *Changing driving laws to support automated vehicles*, NATIONAL TRANSPORT COMMISSION (May 2018), <https://www.ntc.gov.au/sites/default/files/assets/files/NTC%20Policy%20Paper%20-%20Changing%20driving%20laws%20to%20support%20automated%20vehicles.pdf> [hereinafter NTC Report].

⁴⁰ *Id.* at 21.

⁴¹ *Id.* at 48.

⁴² *Id.*

- 3) Must take control when it is apparent that the automation is no longer working in a proper manner.
- 4) Must take control when requested by the ADS.
- 5) Must hold the appropriate licence for the vehicle type.
- 6) Must comply with drug, alcohol and fatigue driver obligations.⁴³

The guide states that fallback-ready users “[m]ust hold the appropriate license for the vehicle type,” signaling that there will be a hierarchy of licensing under the new regime. This concept is not foreign to most traffic laws, as different requirements already exist for different vehicle types. Commercial driver’s licenses (CDLs), chauffeur’s licenses and motorcycle licenses all provide examples of how regimes could look to differentiate expectations among drivers depending on the vehicle they hope to operate. Under the NTC guidelines, it may be possible that a license for a SAE Level 3 vehicle would require less or different expectations from a user. Instead of a “rules of the road” test, it may be important to assess a user’s reaction time or technical operability. In this regard, education directives for licensing would also need altering, where an emphasis would be placed on the user learning how to use inputs to accommodate the vehicle instead of the inverse.

B. EXPECTATION OF RESPONSIVENESS TO VEHICLE SIGNALS

A common theme between most global legislators seeking to tackle regulation of users in SAE Levels 0-3 vehicles is the requirement of user attentiveness and reaction. Although little traction has been made through legislation federally in the United States,⁴⁴ in recent years the U.S. Department of Transportation

⁴³ *Id.* at 49.

⁴⁴ In the 115th Congress, two bills that would have set a foundation for this industry were introduced (the SELF DRIVE Act and the AV START Act), but neither were enacted. Maggie Miller, *Wheels begin to turn on self-driving car legislation*, THE HILL (2019), <https://thehill.com/policy/transportation/automobiles/472341-wheels-begin-to-turn-on-self-driving-car-legislation>.

(USDOT) and the National Highway Traffic Safety Administration (NHTSA) have published a series of reports that show a chain of federal legislative intent toward regulating users of automated driving technology.⁴⁵ The latest report touches upon a variety of domestic concerns tied to the automated vehicle industry, such as fostering collaboration within the government, supply chain integration, environmental quality, and data and intellectual property protection.⁴⁶

From the foundation built by the previous NHTSA policies, USDOT released a new report in January 2021 titled the '*Automated Vehicles Comprehensive Plan*'.⁴⁷ Within the plan, the USDOT attempts to address potential scenarios involving automated vehicles both with and without user control. The USDOT plan addresses when and what a driver would be responsible for taking control of in SAE Level 3⁴⁸ automated vehicles. The USDOT states that in the case of individual ownership (in contrast to a commercial fleet

⁴⁵ *USDOT Automated Vehicles Activities*, U.S. DEPARTMENT OF TRANSPORTATION (2021), <https://www.transportation.gov/AV>. In September 2016, USDOT (through NHTSA) published the 'Federal Automated Vehicles Policy' that established many general safety objectives and standards required by the innovation of this new technology. After public feedback, the agency updated the policy in September 2017, in October 2018 and again in January 2019. Each of the reports built upon its predecessor, with the latest rendition sporting the title 'Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0'.

⁴⁶ *USDOT Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0*, U.S. DEPARTMENT OF TRANSPORTATION (2021), <https://www.transportation.gov/AV>

⁴⁷ *Automated Vehicles Comprehensive Plan*, U.S. DEPARTMENT OF TRANSPORTATION (Jan. 2021).

⁴⁸ The USDOT plan discusses certain driving scenarios where Level 3 automation would most be useful, such as the recent traffic jam pilot programs. In these programs, "where traffic may be at a relative standstill, and the [automated vehicle] allows a driver to relinquish control and engage in other activities until the system reaches its design limits and hands back control of the [dynamic driving task] to the driver. If the driver cannot re-engage within a time period specified as reasonable by the companies, then companies suggest the vehicle would safely bring itself to a standstill."

service) the automated vehicle “would be capable of performing the dynamic driving task within a specific set of conditions, and the driver would be expected to be ready to take back control when the system requests it.”⁴⁹

Although the plan refrains from specifically addressing a driver’s license requirement,⁵⁰ the plan establishes many expectations about users of automated vehicle technology, both directly and indirectly. The plan suggests that automated vehicle systems at SAE Level 3 would only be able to carry out full functionality in a limited number of circumstances (interstate driving, parallel parking, etc.).⁵¹ The USDOT plan states that further study is currently being undertaken as to what situations warrant driver intervention and how information and education could affect beneficial outcomes. The plan discusses a study regarding the length of time it takes a user to become aware of varying situation and the subsequent length of time to resume control of the vehicle, showing that information is constantly being gathered to inform new and updated policy.⁵²

As seen previously in Australia’s NTC report, fallback users “[m]ust remain sufficiently vigilant to acknowledge the transition demand and acknowledge vehicle warnings, mechanical failure or emergency vehicles (consistent with guidance under development by WP.29).”⁵³ The plan goes on to state that a user “[m]ay avert their attention from the dynamic driving task and perform secondary activities but must remain sufficiently vigilant to regain control of the vehicle without undue delay, when required.”⁵⁴ The plan fails to define “secondary activities”, although it can be assumed that these activities mean those that (1) are not a part of the dynamic driving

⁴⁹ *Id.* at 17.

⁵⁰ This is most likely due to the fact that driver’s licensing requirements are driven by state legislatures and USDOT being a federal regulatory body would want to refrain from circumventing that authority.

⁵¹ *Id.*

⁵² *Id.*

⁵³ NTC Report at 48.

⁵⁴ *Id.*

task, and (2) still allow a user to remain “vigilant” enough to acknowledge and act on vehicle commands.

Similar to both the USDOT and NTC plans, two of United Kingdom’s Law Commissions recently published an extremely comprehensive report that covers a plethora of debated topics and case studies on automated driving technology.⁵⁵ The report is similar to the USDOT plan in substance, but expands upon and addresses many more concerns and situations. Section 12.1 of the report states, “[t]he main role of the user-in-charge would be to take over driving, either following a transition demand or because of a conscious choice.”⁵⁶ A ‘transition demand’ incorporates similar reference to the user requirements in both the Arizona state legislation and USDOT “Passenger Vehicle Conditional Driving Automation” in that users must be in a state of consciousness that would allow them to react to some sort of vehicle notification that the user needs to take control.⁵⁷ The report refers to a user being conscious to receive a transition demand and subsequently retaining control of the vehicle as “the handover.”⁵⁸

Under the Law Commission’s proposals, a user-in-charge would be allowed and able to “handover” the dynamic driving task of the vehicle at any time.⁵⁹ As stated before, users would be responsible for taking over tasks (the “handover”) when the vehicle signifies, further mandating that the user-in-charge be “in or in direct sight of the vehicle” and in a position to operate the controls

⁵⁵ Automated Vehicles: Consultation Paper 3 – *A regulatory framework for automated vehicles*, Law Commission of England and Wales, Scottish Law Commission (Dec. 18, 2020). Available at <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jxsou24uy7q/uploads/2021/01/AV-CP3.pdf> [hereinafter UKLC Paper 3].

⁵⁶ *Id.* at 194.

⁵⁷ This paper will dive deeper into what the UKLC “user-in-charge” looks like in future sections. There currently exists a large distinction in how users are defined in automated vehicles between the United States’ Uniform Law Commission and the UKLC.

⁵⁸ NTC Report at 49.

⁵⁹ *Id.* at 197.

at all times.⁶⁰ Obviously, the simplest way to achieve this expectation would be for the user to sit in the driver seat, although the report also adds potential future ways to satisfy the requirement such as remote supervision. If the user-in-charge is not performing the dynamic driving task, the user cannot be held liable for any subsequent accidents involving that task.⁶¹

The Federal Ministry of Transport and Digital Infrastructure of Germany (BMVI) first passed law on automated driving in June 2017 as an amendment to the country's Road Traffic Act.⁶² The vast majority of changes made in these amendments resulted in rights and obligations placed on a user of automated vehicles at SAE Level 3, meaning the user was responsible for assuming control under certain conditions.

The new law coined the term 'highly automated driving systems', being legislatively defined as systems in which the user would not need to monitor at all times and would alert the driver if she is to take over dynamic driving function.⁶³ Section 1b of the law addresses the rights and responsibilities of users as follows:

§ 1b Rights and responsibilities of the driver when using highly or fully automated driving functions

- 1) The driver of the vehicle may turn away his attention from the traffic and the vehicle control when the vehicle is controlled by means of highly or fully automated driving functions according to § 1a; he must remain sufficiently responsive.
- 2) The driver is obliged to take over the vehicle control immediately:

⁶⁰ *Id.*

⁶¹ *Id.* at 199.

⁶² Straßenverkehrsgesetz in der Fassung der Bekanntmachung vom 5. März 2003 (BGBl. I S. 310, 919), das zuletzt durch Artikel 8 des Gesetzes vom 17. Juli 2017 (BGBl. I S. 2421) geändert worden ist". Road Traffic Act as amended on 5 Mar. 2003 (BGBl. I p. 310, 919), last amended by Article 8 of the Act of 17 July 2017 (BGBl. p. 2421).

⁶³ *Id.*

1. when the highly or fully automated system asks him to do so; or
2. if he recognizes or, on the basis of obvious circumstances, realizes that the prerequisites for the intended use of the highly or fully automated driving functions no longer exist.⁶⁴

Once again, as expressed previously, an importance is put on user consciousness, this time through the term “sufficiently responsive.” As this legislation was passed in 2017, it took place well before some of the other legal regimes noted in this paper. The notion of driver awareness and responsiveness is now a staple in SAE Level 3 policy, however, BMVI was one of the first federal legislatures to codify it.

C. *REASONABLE CARE*

In the United States, a supplement to user responsibilities in traffic laws and regulations is the common law standard of “reasonable care” and how it pertains to vehicles. Although this paper does not touch upon the liability conundrum that is created by automated vehicle technology, this common law standard, nevertheless, creates expectations on users and seeks to regulate their behavior. Jury instructions for civil cases involving vehicles in California read as follows:

A person must use reasonable care in driving a vehicle. Drivers must keep a lookout for pedestrians, obstacles, and other vehicles. They must also control the speed and movement of their vehicles. The failure to use reasonable care in driving a vehicle is negligence.

Directions for Use

This instruction states the common-law standard of reasonable care in driving. It applies to negligent conduct that is not covered by provisions of the Vehicle Code: “Aside from the mandate of the statute, the driver of a

⁶⁴ *Id.* at 2422.

motor vehicle is bound to use reasonable care to anticipate the presence on the streets of other persons having equal rights with himself to be there.” (Zarzana v. Neve Drug Co. (1919) 180 Cal.32, 37 [179 P. 203].)⁶⁵

In most jurisdictions, the notion of legal care amounts to comparing a driver’s actions to that of what a “reasonable”, average driver under those specific circumstances would or should have done. For example, if a posted speed limit sign states ‘55 miles per hour’ in the middle of a blizzard, the expectation of a user driving in a SAE Level 0 vehicle would likely a lower, safer speed limit.⁶⁶ To contrast the same weather example, in a SAE Level 3 vehicle where the vehicle is performing the dynamic driving task for a specified time, ‘reasonable care’ for a user might simply mean staying awake, not being required to monitor the vehicle’s speed. Keeping the liability conversation aside, simple logic suggests that if a vehicle is certified to be able to perform the dynamic driving task a user would be reasonable relying on that task. Here, a “grey area” of expectation is created due to the knowledge and training required for a user to understand when it is appropriate to allow the vehicle to perform the dynamic driving task.

⁶⁵ CAL. JUD. QUAL. COMM’N R. JUR. INST. (Civ.) No. 700.

⁶⁶ *Black v. State*, 116 ARIZ. 234, 239, 568 P.2d 1132, 1137 (App. 1977).

IV. REGULATING USERS – SAE LEVELS 4-5

A. *LICENSING VS. AUTOMATED DRIVING SYSTEM DRIVERLESS CERTIFICATION*

In the United States, states such as Nevada,⁶⁷ California,⁶⁸ and Florida⁶⁹ were the first to promulgate regulations that specifically address “autonomous vehicles” (automated vehicles at least at SAE Level 3 or higher). Since that time, many states have instituted their own comparable rules, now going as far as not requiring an operator depending on the sophistication of the automated driving technology. Arizona is a prime example of a state legislature looking into the growth of automated car technology. The largest and most comprehensive area of Arizona state law dealing with automated driving technology was introduced and planned to be passed on a bipartisan basis by the First Regular Session of 2021 by the Arizona House of Representatives.⁷⁰ In the Arizona Autonomous Driving Bill, ‘Fully Autonomous Vehicle’ is defined as following:

A vehicle that is equipped with an automated driving system (ADS) designed to function as a Level Four or Five system under SAE J3016 and that may be designed to function either:

- (a) Solely by use of the automated driving system; or

⁶⁷ Mary Slosson, *Google gets first self-driven car license in Nevada*, REUTERS (2012), <https://www.reuters.com/article/uk-usa-nevada-google/google-gets-first-self-driven-car-license-in-nevada-idUSLNE84701320120508>.

⁶⁸ Gretchen Dubois, Douglas Shinkle, *Autonomous Vehicles: Self-Driving Vehicles Enacted Legislation*, NCSL, <https://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.aspx>.

⁶⁹ *Id.*

⁷⁰ Arizona Autonomous Driving Bill, HB 2813, 55th Leg. § 1 (2021) [hereinafter Arizona Bill].

(b) by a human driver when the automated system is not engaged.⁷¹

Section 28-9602(B) in Chapter 31 states that “[a] person may operate an autonomous vehicle with the automated driving system engaged on public roads in this state with a licensed human driver who is able to resume part or all of the dynamic driving task or respond to a request to intervene, if any.”⁷² This section creates a few obligations on drivers of SAE Level 4 or higher automated vehicles, both directly and indirectly. Under this definition, Arizona’s statute still requires that users of SAE Level 4-5 vehicles retain a driver’s license.

To contrast, the National Conference of Commissioners of Uniform State Laws wrote and approved model legislation titled “Uniform Automated Operation of Vehicles Act” (UAOVA)⁷³ in December 2019 which expressly states that users of automated vehicles under the model code are not required to hold a driving license “to take a completely automated trip.”⁷⁴ Although the UAOVA does not expressly state which SAE Levels the model legislation pertains to,⁷⁵ it defines an “Automated Vehicle” as any

⁷¹ Arizona Bill, § 28-101 36(a-b).

⁷² Arizona Bill, § 28-9602(B).

⁷³ Uniform Law Commission's Uniform Automated Operation of Vehicles Act (Dec. 3, 2019), ARCHIVE OF THE UNIFORM LAW COMMISSION, 2019, <https://www.uniformlaws.org/viewdocument/final-act-no-comments-105?CommunityKey=4e70cf8e-a3f4-4c55-9d27-fb3e2ab241d6&tab=librarydocuments>. The Act is a uniform code recommended for adoption by each state, which in turn would tailor provisions to specifically address the needs of that state. Topics covered within the Act include but are not limited to automated vehicle registration, driving licensing, and “rules of the road.”

⁷⁴ *Id.* § 4(a).

⁷⁵ The Uniform Automated Operation of Vehicles Act (UAOVA) Final Act with Comments explains the reasoning for not using the SAE Levels as “changes for legal and functional clarity.” As an example, the comments note that SAE J3016 defines an automated driving system by “its asserted capabilities rather than by its successful realization of those capabilities. This notion conflates the distinction between SAE Levels 3-4, as the UAOVA attempts to provide a more functional legal definition.

vehicle with an “Automated-Driving System”, which is defined as “hardware and software collectively capable of performing the entire dynamic driving task on a sustained basis.”⁷⁶ This definition likely places the UAOVA policies at least at SAE Level 3 (but likely SAE Level 4), as that is the stage in which the dynamic driving task can be completely sustained by the vehicle, however, only in limited circumstances.

Instead of a user operating an automated vehicle, the UAOVA provides an alternative definition referred to as an “Associated Automated Vehicle”, a vehicle which is designated as such by an automated-driving provider to a state agency. This model legislation seemingly creates two distinct categories of users: (1) drivers defined by the state’s vehicle code; and (2) automated-driving providers that designate associated automated vehicles. The latter category represents automated vehicles in which the entirety of the dynamic driving task is controlled by an automated-driving provider and the passenger (user) has no control.

As previously noted with other drivers defined by this legislation, Section 4(b) of the model legislation states that “[a]n automated-driving provider is not required to hold a [driving license] to drive or operate an automated vehicle under automated operation.” Instead, an automated-driving provider must due the following to be considered as such:

- (1) have participated in a substantial manner in the development of an automated-driving system;
- (2) have submitted to the United States National Highway Traffic Safety Administration a safety self-assessment or equivalent report for the automated-driving system as required or permitted by the United States National Highway Traffic Safety Administration; or
- (3) be registered as a manufacturer of motor vehicles or motor-vehicle equipment under the requirements of the

⁷⁶ *Id.*

United States National Highway Traffic Safety
Administration.⁷⁷

Automated-driving providers are responsible for vehicles complying with state traffic laws instead of traditional users;⁷⁸ this regime seemingly retains little to no existing user responsibilities. Users are simply passengers, wherefore an automated-driving provider supplies an associated automated vehicle and that vehicle performs the subsequent dynamic driving task. Under the UAOVA, if the vehicle is not an associated automated vehicle, all existing user responsibilities are retained.⁷⁹

*B. SHIFT FROM USER TO MANUFACTURER AND OWNER
RESPONSIBILITIES*

As is apparent from the UAOVA distinction between a state's statutory driver and an associated automated vehicle, the model legislation's intent is to transition traffic law responsibility to the producer of the vehicle instead of the passenger/user. This makes both practical and logistical sense; law has always attempted to center around the idea of control. If the user has no control over the dynamic driving task, why would they be made responsible to pass a driving test, follow traffic laws or use "reasonable care"?

Similar to the UAOVA, the USDOT '*Automated Vehicles Comprehensive Plan*' also addresses the situation to where an automated vehicle would have a user, but that user would be unable to affect the dynamic driving task (or inputs) in any significant way.⁸⁰ This leap from SAE Level 3 to SAE Level 4 presents a practical inquiry in this scenario because of what expectations can be put on the user when intervention is not possible. The plan seems to focus entirely now on the manufacturing of the vehicles and the oversight required to ensure safety under this regime, possibly

⁷⁷ *Id.* at § 4(b).

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.* at 18.

signifying a drop-off of user responsibility at what it defines at SAE Level 4 automation.⁸¹

Many inside the “tech” community have hedged that this potential drop-off of user responsibility could coincide with a reciprocal increase in manufacturer and owner responsibility. With companies like Waymo and Lyft teaming up in recent years to create automated rideshare vehicle fleets with completely driverless trips already taking place, many new issues are raised for legislators.⁸² Specifically in regards to drivers, Waymo employs workers as “vehicle operators” who serve in a supervisory role.⁸³ Waymo requests the following of users/passengers: “[p]lease do not interact with vehicle operators. Our drivers are instructed not to engage with riders so you can focus on enjoying the self-driving experience. If you have any questions or concerns, you can always contact Rider Support through the in-car button or the app.”⁸⁴

These policy prerogatives being pushed by the private sector and companies like Waymo in Arizona are leading to legislative reactions. As stated previously, under the 2021 Arizona Bill on Autonomous Vehicles, a vehicle that is capable of performing the dynamic driving task but also has human driver capability requires

⁸¹ *Id.*

⁸² Kirsten Korosec, *Waymo and Lyft partner to scale self-driving robotaxi service in Phoenix*, TECHCRUNCH (2019), <https://techcrunch.com/2019/05/07/waymo-and-lyft-partner-to-scale-self-driving-robotaxi-service-in-phoenix/#:~:text=Waymo%20is%20partnering%20with%20Lyft,to%20Waymo%20CEO%20John%20Krafcik>.

⁸³ *Learn about vehicle operators who supervise trips - Waymo Help*, GOOGLE (2021), <https://support.google.com/waymo/answer/10078967?hl=en#zippy=%2Can-i-talk-to-the-driver> (last visited Feb 2, 2021). Waymo reports that it has already completed over 100,000 successful driverless trips since its inception.

⁸⁴ *Id.*

the user to retain a driver's license.⁸⁵ However, automated vehicles without human driver capability are responsible for the following:

C. A fully autonomous vehicle may operate on public roads without a human driver only if a person submits both:

1. A law enforcement interaction plan to the department of transportation and the department of public safety that is consistent with and addresses all of the elements in the law enforcement protocol that was issued by the department of public safety on May 14, 2018, before beginning the operation or if the operation has already begun, within sixty days after the effective date of this section.

2. A written statement to the department of transportation acknowledging all of the following:

- (a) when required by federal law, the fully autonomous vehicle is equipped with an automated driving system that is in compliance with all applicable federal laws and federal motor vehicle safety standards and bears the required certification labels including reference to any exemption granted by the national highway traffic safety administration under applicable federal law.

- (b) if a failure of the automated driving system occurs that renders that system unable to perform the entire dynamic driving task relevant to its intended operational design domain, the fully autonomous vehicle will achieve a minimal risk condition.

- (c) the fully autonomous vehicle is capable of complying with all applicable traffic and motor vehicle safety laws of this state and the person who submits the written statement for the fully autonomous vehicle may be issued a

⁸⁵ Arizona Bill, § 28-9602(B).

traffic citation or other applicable penalty if the vehicle fails to comply with traffic or motor vehicle laws.

(d) the fully autonomous vehicle meets all applicable certificate of title, registration, licensing and insurance requirements of this title.⁸⁶

Section 28-9602(E) expands upon this:

E. When engaged, the automated driving system is considered the driver or operator of the autonomous vehicle for the purpose of assessing compliance with applicable traffic or motor vehicle laws and is both:

1. Deemed to satisfy electronically all physical acts required by a driver or operator of the vehicle.
2. Exempt from the requirements of chapter 8 of this title.⁸⁷

The Arizona legislature recognizes the practical distinction between a driverless and driver-capable automated vehicle. A vehicle that has the capability for a user to take control of the dynamic driving task calls for expectations on that driver if it chooses to do so. To the contrary, if a vehicle has no driver capability (or user control), there is little need for user regulation. This three-tiered system of (1) traditional drivers, (2) drivers of automated vehicles in which they are responsible to taking control of, and (3) driverless vehicles could be advisory to other differing approaches in this sector, such as legislatively defining a driver.

V. DIFFERENCES IN DEFINING A USER OF AN AUTOMATED VEHICLE

As is the case with any legislation, many of the expectations and assumptions created by a law are derived from how the terms in

⁸⁶ Arizona Bill, § 28-9602(C).

⁸⁷ Arizona Bill, § 28-9602(E).

that law are defined. As evidenced from this paper, there are many interchangeable terms used to describe those who interact with automated vehicles. Drivers, users, providers, passengers, manufacturers and owners are just a few. This last section seeks to explore the differences between how two reputable approaches, the United Kingdom Law Commission⁸⁸ and the Uniform Law Commission, are choosing to define users of automated vehicles and a potential middle ground approach that could be used to help bridge the gap.

*A. UNITED KINGDOM LAW COMMISSIONS – THE CASE
FOR USER-IN-CHARGE*

1. User-in-Charge-Vehicles

The UK Law Commissions (UKLC) first coined the term “user-in-charge” in its first consultation paper to propose that an individual in a highly automated vehicle should be able to operate the controls of the vehicle (perform the dynamic driving task), unless the vehicle is otherwise authorized to operate without one.⁸⁹ In the glossary of terms, user-in-charge is defined as follows:

A human who has access to the controls of an automated vehicle, and is either in the vehicle or in direct sight of it. The user-in-charge is not a driver while the automated driving system is correctly engaged but must be qualified and fit to drive. Their main role is to take over following a transition demand. They would also have obligations relating to non-dynamic driving task requirements including duties to maintain and insure the vehicle, secure loads carried by the vehicle and report accidents. An

⁸⁸ Two law commissions within the United Kingdom, the Law Commission of England and Wales and the Scottish Law Commission, have interjected proposals for a comprehensive legislative framework of AVs. <https://www.lawcom.gov.uk/comprehensive-regulatory-framework-for-self-driving-vehicles-proposed-to-government/>.

⁸⁹ UKLC Paper 3 at 2.

automated vehicle would require a user-in-charge unless it is authorised to operate without one.⁹⁰

On face value, this description aligns closely with the requirements placed on drivers under the Arizona Bill. A user-in-charge would be responsible for “handovers”, in which the automated vehicle will signify to the user that it needs the user to take control of the dynamic driving task.⁹¹

The UKLC proposal states that a user-in-charge would be able to take over driving controls at any time, with the only limitation being that an “offer” and “confirm” would need to take place to prevent mistaken handovers.⁹² One expectation that the proposal puts on users-in-charge that is not seen in other legislation is to remain “in direct sight” of the vehicle, while using the automated driving system or after a handover.⁹³ Practically, the effect of a handover means that a user-in-charge becomes a traditional driver, being subject to all general traffic laws.⁹⁴ The driver would be liable for all criminal and civil infractions while undertaking the dynamic driving task, whether taken manually or prompted by the vehicle to do so.⁹⁵

The UKLC report acknowledges hope for a future where transition demands and handovers will not be necessary.⁹⁶ A user-in-charge may still have other duties that do not include dynamic driving task such as making sure minors are wearing seatbelts, carrying insurance and that the vehicle is appropriately parked and maintained.

⁹⁰ UKLC Paper 3 at vii.

⁹¹ NTC Paper at 44.

⁹² UKLC Paper 3 at 194.

⁹³ Vehicles with remote operation are defined separately, as the UKLC believes that the regulatory concerns of those vehicles are differentiated.

⁹⁴ UKLC Paper 3 at 194.

⁹⁵ *Id.*

⁹⁶ *Id.* at 217.

2. *No User-in-Charge Vehicles (NUICs)*

The UKLC report further attempts to define vehicles that require no user-in-charge by stating that over time some automated vehicles will not need human intervention at any stage of a trip; aptly named, they coin the term ‘No User-in-Charge Vehicles’ (NUICs).⁹⁷ An NUIC can travel “empty”, meaning that it needs no physical human control to operate and that any users of the vehicle are simply passengers.⁹⁸ The report specifically states that “[passengers] have no legal responsibility for the way that the vehicle drives and are under no obligation to intervene.”⁹⁹

3. *Automated Driving System Entity (ADSE)*

To bridge the gap of control and, in turn, liability created between the definitions drivers, users-in-charge and NUICs, the UKLC proposal offers that an automated driving system would be backed by an Automated Driving System Entity (ADSE).¹⁰⁰ An ADSE could be a non-driver such as a manufacturer or producer of an automated vehicle that would be “subject to regulatory action under the safety assurance scheme.”¹⁰¹ All vehicles that are deemed to have automated driving systems would retain an ADSE, meaning that it would apply to both vehicles with user-in-charge capabilities and NUICs.

In a way, the UKLC creates a hierarchy of user control and responsibility as technology advances: (1) traditional vehicles, (2) automated vehicles with a user-in charge, (3) remote operators with a user-in-charge, (4) complete remote operation (NUICs), and (5) highly automated vehicles with no human interface. This apparent hierarchy seems to correspond closely with the technological differences set out in the SAE Levels, possibly attempting to address concerns of all forms of automated vehicles under one

⁹⁷ *Id.* at 213.

⁹⁸ *Id.* at 223.

⁹⁹ *Id.*

¹⁰⁰ *Id.* at 134.

¹⁰¹ *Id.*

comprehensive report. The creation of ADSEs helps fill in lines of uncertainty regarding liability of this hierarchy.

*B. UNIFORM LAW COMMISSION – THE CASE FOR
AUTOMATED DRIVING PROVIDERS*

The Uniform Law Commission’s (ULC) model legislation (UAOVA) differentiates definitions of users in a way that is unlike the UKLC report. In the comments of the UAOVA legislation, the drafters state that the term “automated vehicle” excludes a vehicle “that a human driver will still monitor the road even as the system steers, brakes, and accelerates. A vehicle is an automated vehicle even if it is not currently under ‘automated operation’—that is, even if a human driver rather than the vehicle itself is currently steering, braking, accelerating, or simply monitoring the road.”¹⁰² Instantly, this places the legislation at least at SAE Level 3, most likely at SAE Level 4.¹⁰³

Under the definition sections, here are how some of the common terms associated with automated driving are defined:

- (1) “Associated automated vehicle” means an automated vehicle that an automated driving provider designates under Section 7...
- (2) “Automated-driving provider” means a person that makes a declaration recognized by [the relevant state agency] under Section 6...
- (4) “Automated operation” means the performance of the entire dynamic driving task by an automated-driving

¹⁰² Uniform Automated Operation of Vehicles Act (UAOVA) Final Act with Comments at 5.

¹⁰³ The Uniform Automated Operation of Vehicles Act (UAOVA) Final Act with Comments explains the reasoning for not using the SAE Levels as “changes for legal and functional clarity.” As an example, the comments note that SAE J3016 defines an automated driving system by “its asserted capabilities rather than by its successful realization of those capabilities. This notion conflates the distinction between SAE Levels 3-4, as the UAOVA attempts to provide a more functional legal definition.

system. Automated operation begins on the performance of the entire 6 dynamic driving task by the automated-driving system and continues until a human driver or human operator other than the automated-driving provider terminates the automated operation...

(9) “Driver” has the meaning in [the state’s vehicle code], except that an automated driving provider that designates an associated automated vehicle under Section 7 is the exclusive driver of the vehicle under automated operation...¹⁰⁴

Under this model legislation, a driver is defined as nothing other than what is required under a specific state’s traffic laws.¹⁰⁵ There is no distinction between a user of an automated vehicle with an assisted-driver system and that of a traditional vehicle. However, once an automated vehicle reaches the defined category of an ‘associated automated vehicle’ under Section 7, the automated driving provider becomes the statutorily defined driver.¹⁰⁶ This category of vehicles to which an automated-driving provider must designate creates an inherent threshold for user responsibility:

If the vehicle does not meet the criteria under Section 7, driver is defined by the state’s traffic law.

If the vehicle meets the criteria under Section 7, the automated-driving provider is then deemed the driver and users simply become passengers.

ULC’s UAOVA takes a much broader approach to defining drivers/users of automated vehicles, perhaps purposely to avoid the burdensome issues raised by the significant number of vehicle categories in UKLC’s report. Under UAOVA, the created threshold allows for a state to retain its prior traffic law regime through driver expectations, while also expanding regulation to the new phenomenon of automated-driving providers. Although the ULC

¹⁰⁴ *Id.* at 5-6.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 18. “An automated driving provider designates its associated automated vehicles by giving acceptable notice to the relevant state motor vehicle agency.”

definition of an automated driving provider seems similar to the UKLC proposal's ADSE, it is distinguished in a key way. Automated Driving Providers are strictly correlated to what the UKLC would consider an NUIC, not covering automated vehicles that would require a user-in-charge.¹⁰⁷

C. *WHY NOT BOTH?*

At the outset, state driver definitions, user-in-charge requirements and automated-driving providers are all mutually exclusive ideas.¹⁰⁸ There is no practical reason as to why all three would be unable to be included into one comprehensive legislation. The following definitions proposal uses the UAOVA as a baseline terminology, incorporating reference to a middle-tier category of users that are expressed by both the Arizona legislature and the UKLC report.

1. *Automated Driving Definitions Proposal:*

SECTION 1. DEFINITIONS. In this [act]:

1. "Automated-driving provider"¹⁰⁹ means a person that makes a declaration that is recognized and approved by [the relevant agency].
2. "Associated automated vehicle" means an automated vehicle that is designated by an automated-driving provider.
3. "Automated vehicle" means a motor vehicle with an automated-driving system.

¹⁰⁷ This distinction seemingly creates a two-tiered approach by the ULC compared to a several-tiered approach retained by the UKLC proposal.

¹⁰⁸ All three ideas are somewhat represented in the 2021 Arizona Bill.

¹⁰⁹ Under this hybrid approach, this term could also be coined "Automated Driving System Entity", as both definitions would encompass the same goals under this regime.

4. “Automated-driving system” means the hardware and software collectively capable of performing the entire dynamic driving task on a sustained basis.
5. “Dynamic driving task” means controlling lateral and longitudinal vehicle motion, monitoring the driving environment, executing responses to objects and events, planning vehicle maneuvers, and enhancing vehicle conspicuity, as required to operate a vehicle in on-road traffic.
6. “Minimal-risk condition” means a condition to which a vehicle user or an automated-driving system may bring a vehicle to reduce the risk of a crash when a trip cannot or should not be continued.
7. “Automated operation” means the performance of the entire dynamic driving task by an automated-driving system.
 - a. Automated operation begins on the performance of the entire dynamic driving task by the automated-driving system and continues until a user-in-charge terminates the automated operation by performing a handover.
8. “User-in-Charge” means a human driver or operator who has access to control the dynamic driving task of an automated vehicle through a transition demand and is either in the vehicle or in direct sight of it.
9. “Handover” means the transfer of dynamic driving task from an automated-driving system to a user-in-charge.
10. “Transition Demand” means an alert issued by an automated driving system to the user-in-charge to take over the dynamic driving task, communicated through visual, audio and haptic signals, which gives the user-in-charge a transition period within which to respond. Absent a response, the automated driving system performs a risk mitigation maneuver bringing it to a stop.
11. “Completely automated trip” means travel in an automated vehicle that, from the point of departure until the point of arrival, is under automated operation by means of an automated-driving system designed to achieve a minimal-risk condition.
12. “Dedicated automated vehicle” means an automated vehicle designed for exclusively automated operation

when used for transportation on a [road open to the public].

13. “Driver” has the meaning in [the vehicle code], except:
 - a. A user-in-charge is a driver in an automated vehicle only after a “handover” has taken place.
 - b. An automated-driving provider that designates an associated automated vehicle is the exclusive driver of the vehicle under automated operation.
14. “Drive” has the meaning in [the vehicle code], except that:
 - a. A user-in-charge drives an automated vehicle only after a “handover” has taken place.
 - b. An automated-driving provider that designates an associated automated vehicle exclusively drives the vehicle under automated operation.
15. “Operator” has the meaning in [the vehicle code], except that:
 - a. A user-in-charge is an operator in an automated vehicle only after a “handover” has taken place.
 - b. An automated-driving provider that designates an associated automated vehicle is the exclusive operator of the vehicle under automated operation.
16. “Operate” has the meaning in [the vehicle code], except that:
 - a. A user-in-charge operates an automated vehicle only after a “handover” has taken place.
 - b. An automated-driving provider that designates an associated automated vehicle exclusively operates the vehicle under automated operation.
17. “Person” [has the meaning in the vehicle code] [means an individual, estate, business or nonprofit entity, public corporation, government or governmental subdivision, agency, or instrumentality, or other legal entity].

VI. CONCLUSION

Whether it be International Convention efforts, German federal law or US state law, world legal regimes are changing what it means to travel in a vehicle. Automated vehicle technology is upon us, and it is not going anywhere. The many benefits including positive environmental impacts, reduced traffic and travel times, and safety

are too great of outcomes for humanity not to pursue. As with all innovative technologies, the law must attempt to keep up.

Automated vehicle technology is changing the expectations of what it means to be a “driver” and legal challenges are created because of it. What laws are still necessary? Are new laws necessary? Who bears the burden of liability? When does automated become “automated enough” to not need a “driver”? These are all questions that may not have definitive answers, but questions needing answers nonetheless.

Legislators around the world seem to acknowledge the decrease of driver responsibility and subsequent increase of producer responsibility as automated vehicle technology progresses. Creating legislation for non-automated vehicles and fully-automated vehicles seem to be simpler tasks than addressing the canundrum that is created during the transition. Some legislators have chosen to be very specific in addressing what will be expected of users in every possible variation of automated vehicles. Others are taking a broader approach by creating overarching legislation that seeks to be functional and adaptable to local application. As with most great things in life, a good balance may be exactly what is needed.

**PREDATORY MICROTRANSACTION
REGULATIONS:
AN INTERNATIONAL COMPARISON**

Matt Hardy

I. INTRODUCTION..... 110

II. PREDATORY MICROTRANSACTIONS: WHAT ARE THEY?
HOW DO THEY WORK? 113
 A. *PAY-TO-WIN MECHANICS* 114
 B. *LOOT BOXES* 116

III. WHY MICROTRANSACTIONS SHOULD BE REGULATED 118

IV. INTERNATIONAL APPROACHES TO
MICROTRANSACTION REGULATIONS..... 123
 A. *UNITED STATES*..... 124
 B. *THE NETHERLANDS* 127
 C. *BELGIUM* 129
 D. *JAPAN*..... 134
 E. *CHINA*..... 136

V. CONCLUSION AND REGULATORY PROPOSAL..... 139

I. INTRODUCTION

As the popularity of video games increased since their invention, gaming can no longer be considered a niche hobby. Data from the Entertainment Software Association (ESA) estimated that nearly 65% of adults in the United States play video games in some form.¹ Even those who do not own one of the staple gaming consoles like Sony's Playstation or Microsoft's Xbox likely have spent some of their income on smartphone games or other mobile applications. As gaming has become a more fundamental part of the way we entertain ourselves, video game publishers and developers have flourished financially. From 2015 to 2019, the ESA estimates that spending on video game content has increased by 85%.² The growth is undeniable; publishers like 2K Games and Electronic Arts have become titans of the entertainment industry, raking in billions of dollars each year. In fact, the highest grossing media product of all time is currently a video game, *Grand Theft Auto V* (GTA V),³ which has brought in over six billion dollars for 2K Games since its release in 2013.⁴ These financial profits that can be reaped from what previously seemed like a niche industry show why the game publishers and developers have garnered interest from big investors.

The financial success of the industry would naturally lead those who are unfamiliar with the minutiae of the video game market to ask: How do these products make so much money? They look to

¹ Hillary Russ, *U.S. adults are spending big on video games, playing mostly on smartphones*, REUTERS (May 9, 2019, 8:06 AM), <https://www.reuters.com/article/us-usa-videogames/u-s-adults-are-spending-big-on-video-games-playing-mostly-on-smartphones-idUSKCN1SF1DC>.

² *Id.*

³ *Grand Theft Auto V*, ROCKSTAR GAMES, <https://www.rockstargames.com/V/> (last visited Dec. 17, 2020).

⁴ Emmét McGonagle, *'Grand Theft Auto V' Has Grossed More Than Any Movie Ever Made*, ESQUIRE (Nov. 4, 2018), <https://www.esquire.com/uk/latest-news/a19743365/grand-theft-auto-v-has-grossed-more-than-any-movie-ever-made/#:~:text=Grand%20Theft%20Auto%20V's%20world,of%20its%20%24265%20million%20budget>.

games like GTA V and wonder how a media product initially sold for \$60 when released in 2013 is still pulling in hundreds of millions of dollars in revenue in 2020. While the game has been released on new platforms that increased the sales numbers, the key to understanding its success, and the growth of the video game industry as a whole, is the proliferation of microtransaction monetization.

Microtransactions are broadly defined as in-game purchases that give the purchaser access to additional content that was not included in the base product.⁵ The categories of microtransactions are typically divided into in-game currencies, (ii) random chance purchases (also known as “loot boxes”), and (iii) in-game items.⁶ These purchases vary in purpose and scope. The two types of microtransactions that have recently garnered scrutiny in the industry are “pay-to-win” purchases and loot boxes; these microtransactions are the focus of this article.

While at first glance they may appear to be simple optional purchases for customers, these monetization tactics have become increasingly predatory and insidious. Pay-to-win purchases prey upon consumers’ need for the next dopamine hit that video games provide by gating content that normally would be given to the customer upon their initial purchase and instead charging a premium for it. Loot boxes have essentially turned video games into virtual casinos, except there is usually no potential monetary award for success. By tapping into the psychological exploits of their customers, video game companies are manipulating their customers into spending much more money than they would have anticipated upon purchasing or downloading a videogame. Sometimes, these games are free at purchase, but customers end up spending more than they would have if they purchased a game at the standard price of \$60. Moreover, these monetization tactics often target minors.

⁵ MARTIN IVANOV ET AL., *Video Game Monetization Mechanism in Triple A (AAA) Video Games*, IN SIMULATION & GAMING THROUGH TIME AND ACROSS DISCIPLINES 419, 422-24 (Marcin Wardaszko ed. 2019).

⁶ *Id.*

In doing so, these video game publishers and developers create future gambling addicts.⁷

National governments have attempted to solve this problem, but their solutions are reactionary, scattershot, and fail to fully address the harms of predatory microtransactions. In this article, I argue that these governments need to improve and expand the regulatory framework for microtransactions and video game purchases generally, and provide a basic proposal for that framework. Companies like Electronic Arts and 2K Games have exploited their customers with addictive behavioral tendencies, as well as children who have not reached the level of mental development necessary to control and temper their spending. Unless national governments around the world catch on and curb these practices, they may become a permanent part of the industry and even seep into other industries.

In Section II, I explain what these problematic microtransactions are and how they manipulate human behaviors and brain chemistry. In Section III, I address why we should regulate these transactions. In Section IV, I evaluate the current microtransaction regulations for several prominent nations. In Section V, I conclude and offer a proposal for the best method of regulating these predatory microtransactions.

II. PREDATORY MICROTRANSACTIONS: WHAT ARE THEY? HOW DO THEY WORK?

As previously stated, microtransactions generally are defined as in-game purchases that give the purchaser access to additional content that was not included in the base product.⁸ These purchases are not necessarily predatory in nature. Quite the opposite, most of these purchases are simply for cosmetic additions and do not come with any strings attached or mental manipulation. For example, in

⁷ See Daniel L. King & Paul H. Delfabbro, *Predatory monetization schemes in video games (e.g. 'loot boxes') and internet gaming disorder*, 113 *Addiction* 1967, 1967-69 (2018), <https://onlinelibrary.wiley.com/doi/full/10.1111/add.14286>.

⁸ IVANOV ET AL., *supra* note 5, at 422-24.

a game like Fortnite, gamers can purchase additional “character skins”⁹ for a set price. Players pay \$5 and get a character skin they want: a basic transaction. Some argue that they are not predatory at all, and simply provide “flexibility” to the player to purchase the content they want.¹⁰ These, however, are not the microtransactions that have led to calls for regulation. The two main microtransactions that have created concern are pay-to-win mechanics and loot boxes, which I will describe in detail below. It is important to note that these are broad categories and do not encapsulate all predatory microtransactions. However, it is easier to explain them separately, as they capture most of the problematic types of microtransactions. There is also significant overlap, as loot boxes can contain pay-to-win items. These definitions are not static or complete; some scholars separate loot boxes from microtransactions categorically. However, I find it is easier to divide predatory microtransactions along these lines, as these mechanics manipulate consumers in distinct ways. However, both are normally small (micro) in-game purchases/transactions.

A. *PAY-TO-WIN MECHANICS*

Pay-to-win microtransactions have received less regulatory scrutiny than loot boxes, but have been the center of controversy and discussion over the ethics of their use because of games targeting children. As defined in the (ultimately rejected) U.S. Senate bill, the Protecting Children from Abusive Games Act, pay-to-win transactions are microtransactions that “eases a user’s progression through content otherwise available within the game” or “assist a user in accomplishing an achievement within the game.”¹¹ Game designers use these monetization mechanics by tapping into a

⁹ Character skins are a term for virtual items that change the appearance of a player-character. These can be free or purchasable in-game.

¹⁰ Patrick Sullivan, *Video Game Industry Responds to Regulation of Pay-To-Win Microtransactions and Loot Boxes*, JD SUPRA (Sept. 4, 2019), <https://www.jdsupra.com/legalnews/video-game-industry-responds-to-87298/>.

¹¹ Protecting Children From Abusive Games Act, S. 1629, 116th Cong. (2019).

human behavioral pattern called “loss aversion.”¹² Loss aversion is a concept that simply means humans would “rather enjoy the satisfaction of winning rather than losing.”¹³ This in itself is not predatory; we all want to win more than we lose. What is predatory is the way that game developers use loss aversion to keep players addicted to playing and spending beyond their means. Many games, especially in the mobile game ecosystem, design their monetization around this concept in order to wring more dollars out of players’ wallets, and more specifically, children’s wallets. They do this by influencing the chemical of addiction: dopamine. Video games generally try to increase dopamine levels to encourage a habit of playing, even those without pay-to-win mechanics.¹⁴ Video game producers want players to form some level of addiction to their games: they want players to come back for more or stay invested in their products. However, many believe that these corporations have crossed an ethical line by so precisely designing the monetization of their games through the formation of addictive habits. With the rise of user data collection in the internet age, video game producers have been able to pinpoint when gamers dopamine levels increase or decrease.¹⁵ They know exactly how to keep players interested, and how to keep players addicted to their product: they have essentially become a digital drug dealer.¹⁶

Many pay-to-win mechanics function in a similar fashion. Pay-to-win games usually start free for a trial period¹⁷ or cost very little. If it’s a single player game, they usually start off relatively easy and give the player several rewards for their progress. After a number of hours, the game gets progressively harder; sometimes it becomes

¹² Gabe Duverge, *Insert More Coins: The Psychology Behind Microtransactions*, TOURO UNIVERSITY WORLDWIDE (Feb. 25, 2016), <https://www.tuw.edu/psychology/psychology-behind-microtransactions/>.

¹³ *Id.*

¹⁴ *The Psychology of Freemium*, PsychGuides.com (last visited Dec. 17, 2020), <https://www.psychguides.com/interact/the-psychology-of-freemium/>

¹⁵ *Id.*

¹⁶ *See id.*

¹⁷ *See id.*

nearly impossible to continue to progress without spending hundreds of hours playing. However, the dopamine the game was giving while the rewards were plentiful cease, leaving players with two options: “grinding”¹⁸ or paying for a microtransaction that gives an in-game item and lets them, in one way or another, bypass the boring or difficult part of the game. As players progress, the game starts hitting them with more of these checkpoints where the game slows down, providing more opportunities to spend money. Games are intentionally speeding up and slowing down dopamine neurotransmission in order to keep the player invested and willing to spend more and more money. The success of these monetization practices can be seen through the massive revenues for supposedly “free” mobile games like Candy Crush Saga. In 2013, Candy Crush made \$1.88 billion in revenue despite being free to initially download.¹⁹ In fact, as of October 2020, ninety-nine of the Apple App Store’s one hundred highest grossing apps are all free downloads.²⁰

These practices are particularly insidious and unethical because they often target children. In countries that don’t have strong consumer safeguards, like the United States, it is very easy for a child to link a parent’s credit card to their game account without authentication.²¹ While there are some protections available in European nations, most countries do not require game developers to clearly delineate between in-app cash purchases and standard, in-game virtual currency purchases.²² This is not normally an issue

¹⁸ Grinding is a process by which a player performs basic in-game tasks that are normally mindless, uninteresting and unengaging, in order to reach the more meaningful and exciting portions of the game.

¹⁹ PyschGuides.com, *supra* note 14.

²⁰ *Top Charts: iPhone – US – Games*, Sensor Tower (Oct. 27, 2020), <https://sensortower.com/ios/rankings/top/iphone/us/games/strategy?date=2020-10-27> (last visited Dec. 18, 2020).

²¹ Alena Khonych, *Ethical and legal dimensions of microtransactions in videogames*, METROPOLIA UNIVERSITY OF APPLIED SCIENCES (2019), https://www.theseus.fi/bitstream/handle/10024/262119/Khonych_Alena.pdf?sequence=2.

²² *Id.*

for adults, children often do not have a complete understanding of monetary value and cannot differentiate between spending real-world and virtual currencies.²³

B. LOOT BOXES

Loot boxes are generally defined as an “in-game purchase consisting of a virtual container that awards players with items and modifications based on chance.”²⁴ These loot boxes usually contain cosmetic items that change the appearance of the in-game avatar, weaponry, or their user profile. Games also can offer in-game bonuses and items that would generally be considered pay-to-win mechanics. Most of these mechanics resemble slot machines, except instead of rewards of cash, player get virtual items. The items the game hands out have various rarities and “drop rates.” Drop rates are the odds that a particular item will “drop” to a player. For instance, in the popular first-person shooter *Overwatch*, there are items in loot boxes with four levels of rarity: common, rare, epic, and legendary. According to reports from Chinese disclosure forms, the odds of receiving an epic or legendary item in an *Overwatch* loot box are 18.2% and 7.4% respectively.²⁵ These odds can vary significantly, with some games offering loot boxes with items that drop at a 0.1% rate.

Loot boxes manipulate human psychology using the principle called “variable rate reinforcement.”²⁶ Our dopamine system loves “unpredictable rewards.”²⁷ Dr. Luke Clark, director of the Center for Gambling Research at the University of British Columbia,

²³ *See id.*

²⁴ Margaret Rouse, *Loot box: definition*, TECHTARGET, <https://whatis.techtargt.com/definition/loot-box> (last updated Jan. 2018).

²⁵ Kellen Beck, *How likely you are to get epic and legendary items from ‘Overwatch’ loot boxes*, MASHABLE (May 5, 2017), <https://mashable.com/2017/05/05/overwatch-loot-box-probability/>.

²⁶ Alex Wiltshire, *Behind the addictive psychology and seductive art of loot boxes*, PCGAMER (Sept. 28, 2017), <https://www.pcgamer.com/behind-the-addictive-psychology-and-seductive-art-of-loot-boxes/>.

²⁷ *Id.*

explains that modern video games amplify the effect of the variable rate reinforcement phenomenon and trigger high levels of dopamine release.²⁸ “Dopamine cells,” Dr. Clark says, “are most active when there is maximum uncertainty, and the dopamine system responds more to an uncertain reward than the same reward delivered on a predictable basis.”²⁹ Game developers manipulate brain chemistry through loot box microtransactions by modelling their games in a way that keep players coming back for more. Normally, this is not a problem: games are designed to keep players invested and excited about their game. What makes them so insidious in modern video games is how they are wired into the game itself: they are designed to keep gamers on “knives-edge between feeling hungry and feeling rewarded.”³⁰ It becomes problematic when games effectively become virtual casinos where they parade virtual items in front of their users and target their dopamine receptors to keep players in the compulsion loop: a “habitual, designed chain of activities that will be repeated to gain a neurochemical reward.”³¹ Regulators point to these loot box mechanics as a cause for the rise in gambling addiction, which in turn leads to extreme and habitual overspending by consumers.

III. WHY MICROTRANSACTIONS SHOULD BE REGULATED

There are a number of ways that predatory microtransactions in video games negatively impact the social and economic costs to the consumer public. The criticism generally follows two tracks: video game addiction or gambling addiction. The focus of this paper is about the latter problem, which I believe to be the more significant and dangerous consequence of these manipulative monetization tactics.

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ Joseph Kim, *What is the Compulsion Loop?*, GAMEANALYTICS (Apr. 2, 2014), <https://gameanalytics.com/blog/the-compulsion-loop-explained.html>.

Gambling is generally understood to be a vice that should be regulated. While some may disagree with the degree to which it is regulated and how regulations should be implemented, the scientific consensus is that it must be regulated in order to prevent gambling addiction and the resulting consequences. The Mayo Clinic refers to gambling disorders as “compulsive gambling,” defined as “the uncontrollable urge to keep gambling despite the toll it takes on [a player’s] life.”³² The toll it takes can be extreme and destructive. Those who deal with severe gambling addictions can “deplete [their] savings, accumulate debt, or even resort to theft or fraud” to feed their addiction.³³ The harms of compulsive gambling go beyond affecting the financial status of the addict. Severe gambling can “affect a person’s health, causing sleep problems, anxiety, stress, depression, unexplained anger, thoughts of suicide, and suicide attempts.”³⁴ Tragically, as an addict becomes more addicted to gambling, they can also “alienate friends and loved ones,”³⁵ which can only further exacerbate their addictive tendencies, since no one can reach out to help them. This form of addiction is also somewhat widespread: the National Center for Responsible Gaming estimates that about 1% of the U.S. adult population has a severe gambling problem, and 6 to 9% among young people in the U.S.³⁶

Most national governments, including the U.S. government, have directly addressed problem-gambling through extensive regulation. The Securities and Exchange Commission, for example, requires constant disclosure by casinos and other business entities

³² *Compulsive gambling*, MAYO CLINIC, <https://www.mayoclinic.org/diseases-conditions/compulsive-gambling/symptoms-causes/syc-20355178> (last visited Dec. 18, 2020).

³³ *Id.*

³⁴ *Gambling Addiction*, JOHNS HOPKINS MEDICINE, <https://www.hopkinsallchildrens.org/patients-families/health-library/healthdocnew/gambling-addiction> (last visited Dec. 18, 2020).

³⁵ *Id.*

³⁶ *Gambling Disorder Fact Sheet*, NATIONAL CENTER FOR RESPONSIBLE GAMING, https://www.icrg.org/sites/default/files/oec/pdfs/ncrg_fact_sheet_gambling_disorders.pdf (last visited Dec. 18, 2020).

with gambling practices.³⁷ Further, to even qualify as an organization that can conduct gambling activities (like poker, slots, lotteries, etc.), businesses must pass rigorous licensing requirements.³⁸ Among the many restrictions under federal and state law, casinos cannot offer certain types of credit to customers that could prevent overspending and compounding debt problems.³⁹ Additionally, there are heavy restrictions on who they can advertise to and how they can advertise their services.⁴⁰ With these regulations, gambling companies must act in ways that meet high ethical standards or be found criminally liable for their actions. While these regulations aren't entirely designed with morality and ethics involved, they go a long way to keep casinos, lotteries, and other gambling purveyors from acting in ways that could hurt the general public.

However, as is the problem with many attempts to regulate vices, new challenges arise as technology advances and the economies change. Regulations that previously worked well may not cover new societal problems or evolutions of old societal ills. For example, the Food and Drug Administration had to update many of their regulations to cope with the recent rise of electronic cigarettes and vaping.⁴¹ Companies selling these products managed to skirt the rules, consequently creating a new wave of tobacco

³⁷ See *Gaming Regulatory Overview*, SECURITIES AND EXCHANGE COMMISSION, <https://www.sec.gov/Archives/edgar/data/858339/000119312512115625/d268435dex993.htm> (last visited Dec. 18, 2020).

³⁸ *Id.*

³⁹ *Responsible Gaming: Regulations & Statutes*, AMERICAN GAMING ASSOCIATION (Sept. 17, 2019), <https://www.americangaming.org/resources/responsible-gaming-regulations-statutes-2/>.

⁴⁰ *Id.*

⁴¹ *The Facts on the FDA's New Tobacco Rule*, FOOD AND DRUG ADMINISTRATION (Jun. 16, 2016), <https://www.fda.gov/consumers/consumer-updates/facts-fdas-new-tobacco-rule>.

addicts that these regulations were designed to prevent.⁴² Sometimes these regulatory fixes come too slowly or don't come at all, defeating the entire purpose of the regulations.

This is why predatory microtransaction should be taken seriously and action should be taken swiftly by national governments to curb their implementation in video games. Just as e-cigarettes managed to subvert tobacco laws, video game companies are exploiting the novelty of modern video games to subvert gambling laws. The general public understands what typically constitutes gambling: card games like poker and blackjack, lottery tickets and scratch-offs, sports betting, etc. All of these recognizable practices that constitute gambling are heavily regulated. Microtransactions, on the other hand, are less well-known and a relatively new phenomenon. While gaming itself has become less of a niche hobby in recent years, the intricacies of the gaming industry remain a mystery to most of the public. If someone on the street is asked what a microtransaction is and how it relates to video games, they likely will answer with a shrug. And yet, as I've stated above, these gaming publishers and developers have exploited human behavior in the same ways that casinos do, sucking more and more money out of their consumers without regulation.⁴³ Traditional gambling games and modern video games similarly "operate on game mechanics that include 'variable reinforcement schedules in order to reward and prolong play, and use exciting and stimulating sound and light effects.'"⁴⁴ Some video games even explicitly include virtual casino games, like recent entries in the NBA 2K series.⁴⁵

⁴² See *id.*

⁴³ See Cam Adair, *Video Games and Gambling: An Introduction to Loot Boxes, Microtransactions, and In-App Purchases*, GAME QUITTERS (Aug. 24, 2018), <https://gamequitters.com/video-games-and-gambling-an-introduction-to-loot-boxes-microtransactions-and-in-app-purchases/>.

⁴⁴ *Id.*

⁴⁵ Alice O'Connor, *NBA 2K20's loot box-y MyTeam mode even has faux gambling machines*, ROCK PAPER SHOTGUN (Aug. 29, 2019), <https://www.rockpapershotgun.com/2019/08/29/nba-2k20s-loot-box-y-myteam-mode-even-has-faux-gambling-machines/>.

The consequences of addiction to microtransaction purchases like loot boxes have been well-documented. For example, one gamer spent over \$150,000 on the “free-to-play” mobile game *Transformers: Earth Wars*.⁴⁶ Another spent \$62,000 on *Runescape*, where gamers can pay up to \$99.99 at a time to take “spins” of a wheel to obtain in game items and currency.⁴⁷ These are some of the higher profile examples of out-of-control spending among the thousands of other gamers who have shelled out more money than they reasonably should have on video games. The impact of microtransactions is clear: they take games that are ostensibly supposed to be “free” and create addicts who keep coming back to spend their hard-earned money on virtual items. Modern free-to-play video games and casinos are becoming less and less distinguishable; yet these video games might be worse because there typically isn’t an opportunity to convert winning in-game into real-world currency.

The lack of regulation of microtransactions is even more concerning because many of them are targeted towards children. These monetization tactics allow “children to pay real money for game boosters and tips.”⁴⁸ They also allow minor gamers to win “fake money or other prizes that can be traded for an opportunity at winning more, replicating a real-life gambling opportunity.”⁴⁹ In the U.S., most states require players to be twenty-one years old to

⁴⁶ Alex Walker, *Someone Spent Over \$150,000 In Microtransactions on a Transformers Game*, KOTAKU (Oct. 14, 2019), https://kotaku.com/someone-spent-over-150-000-in-microtransactions-on-a-t-1839040151?utm_source=Kotaku_Facebook&utm_campaign=Socialflow_Kotaku_Facebook&utm_medium=Socialflow.

⁴⁷ Cecilia D’Anastasio, *Player Spends \$62,000 In Runescape, Reigniting Community Anger Around Microtransactions*, KOTAKU (Sept. 18, 2019), <https://kotaku.com/player-spends-62-000-in-runescape-reigniting-communit-1838227818>.

⁴⁸ *The Dangers of Youth Gambling Addiction*, KNOW THE ODDS, https://knowtheodds.org/wp-content/uploads/2013/05/NYCPG_ebook_YouthGambling_052114.pdf.

⁴⁹ *Id.*

gamble.⁵⁰ These age restrictions are created because children and teenagers have not fully developed their brains; they are not able to properly balance emotion and logic.⁵¹ Not only are kids more likely “to act impulsively and take risks,” but they also often continue their addictions into adulthood.⁵² Thus, when gaming companies implement their predatory microtransactions in ways that target minors, they are taking advantage of the most vulnerable among us and potentially giving them lifelong addiction problems. These attempts to entice younger players can also have financial consequences for unaware parents: earlier this year, a six-year-old child spent over \$16,000 on the mobile game Sonic Forces.⁵³ His mother was completely unaware of the purchases until they received the bill from Apple and she has been unable to receive a refund for her son’s purchases.⁵⁴

Gambling regulation is necessary to prevent the social ills that come with gambling addiction. However, government regulations have mostly been unable to keep up with the times. If we want to truly curb gambling addiction, regulators need to consider predatory microtransactions as equivalent to traditional forms of gambling. When the general public thinks about gambling, they do not usually consider the standard PlayStation, Xbox, or Nintendo game, but they should: awareness of the problem of in-game microtransactions could go a long way to mobilizing regulators to take action.

⁵⁰ *How Old Do You Have to Be to Gamble?*, POKER NEWS (Aug. 30, 2019), <https://www.pokernews.com/casino/gambling-age-regulations.htm>.

⁵¹ *The Dangers of Youth Gambling Addiction*, *supra* note 48.

⁵² *Id.*

⁵³ Doree Lewak, *This 6-year-old racked up \$16K on mom’s credit card playing video games*, NEW YORK POST (Dec. 12, 2020), <https://nypost.com/2020/12/12/this-6-year-old-racked-up-over-16k-on-his-moms-credit-card/>.

⁵⁴ *Id.*

IV. INTERNATIONAL APPROACHES TO MICROTRANSACTION REGULATIONS

Countries have taken drastically different approaches to regulate predatory microtransactions. While most have focused on loot boxes, they have not done so with varying degrees of harshness and scope. There are a number of countries that have directly responded to predatory microtransactions, however I will be focusing on countries that have had the most noteworthy regulations or impact on the video game market itself. These countries are the United States, the Netherlands, Belgium, Japan, and China.

A. UNITED STATES

While the United States government has done very little substantive regulation of the video game industry and microtransactions in particular, it is important to understand what has been done so far. The United States population is estimated to spend nearly \$36 billion on video games in 2020, trailing only China in overall game revenues.⁵⁵ The United States is also home to many of the corporations that implement predatory microtransactions in their popular games like Electronic Arts, Activision-Blizzard, and 2K Games, meaning the United States government could have significant influence over these corporate monetization practices.

Alas, there has been little to no regulation of these monetization tactics in federal or state government. There appeared to be traction in 2019 when Senator Josh Hawley (R-MO) introduced bipartisan legislation S. 1629: the Protecting Children from Abusive Games Act (PCABA).⁵⁶ This legislation was designed to prevent the use of pay-to-win mechanics and loot box purchases in “minor-oriented games,” or any game produced in which the publisher has

⁵⁵ *Top 10 Countries/Markets by Game Revenues*, NEWZOO, <https://newzoo.com/insights/rankings/top-10-countries-by-game-revenues/> (last visited Dec. 17, 2020).

⁵⁶ Protecting Children From Abusive Games Act, S. 1629, 116th Cong. (2019).

“constructive knowledge” that their players are minors.⁵⁷ The general goal was to prevent minors from being exposed to these monetization practices, but the legislation also had other regulatory aspects. For one, pay-to-win mechanics and loot boxes would be considered “unfair or deceptive acts or practices” for purposes of the Federal Trade Commission Act.⁵⁸ Congress also required the FTC to begin studying the use of these types of microtransactions and how it affects “compulsive purchasing behavior,” providing Congress with regular reports on their findings.⁵⁹ Unfortunately, this bill has not been passed and remains tabled. Given the economic and public health crises U.S. Congress is currently dealing with, I doubt they have much interest in weighing the problematic nature of video game monetization.

However, this legislation is quite significant when compared to regulations passed in other countries. If this bill had passed, it could have been one of the most powerful pieces of legislation in curbing the use of predatory microtransactions. While most countries have focused almost entirely on the use of loot boxes in their regulatory laws, the PCABA specifically calls for regulation of pay-to-win mechanics. The focus of the bill is to protect children, but it also would define the use of these types of microtransactions as potentially unfair or deceptive.⁶⁰ This change could have potentially opened the door to further regulation. The FTC was to be given the power to investigate how these transactions affect consumer behavior. If the FTC found that these transactions also were manipulating consumer habits in adults, it is possible that Congress would have expanded the reach of this initial legislation.

⁵⁷ Patrick Sullivan, *United States: Video Game Industry Responds To Regulation Of Pay-To-Win Microtransactions and Loot Boxes*, MONDAQ (Aug. 26, 2019), <https://www.mondaq.com/unitedstates/gaming/839790/video-game-industry-responds-to-regulation-of-pay-to-win-microtransactions-and-loot-boxes>.

⁵⁸ S. 1629, *supra* note 56.

⁵⁹ *Id.*

⁶⁰ *Id.*

Hopefully, there will be a return to this tabled legislation in the future.

This attempt at legislation, however may have led to some form of self-regulation within the industry. When controversy over predatory microtransactions reached a fever pitch in 2019, the Entertainment Software Association⁶¹ promised to create required disclosures for all of their member-developers with regard to loot boxes and related transactions.⁶² Specifically, they plan to require their developers to “disclose information on the relative rarity or probability of obtaining randomized virtual items.”⁶³ This would be a good step towards creating transparency with consumers, allowing them to make a more informed decision about the actual value of the loot boxes. However, they claimed the details of these required disclosures would be released in 2020, and it does not appear they have made good on their promise.

Another attempt at self-regulation has come from the Entertainment Software Rating Board (ESRB). The ESRB is a self-described “non-profit, self-regulatory body for the video game industry,” meant to help consumers make “informed choices” about the games they play.⁶⁴ While they are primarily known for creating the rating system that determines age suitability for video games (E for everyone, T for Teen, M for Mature, etc.), they have recently added warning labels for games that include in-game microtransaction purchases.⁶⁵ More specifically, if there are loot

⁶¹ The Entertainment Software Association (ESA) is a video game trade association based in the United States. Its membership includes many of the most prominent developers around the world.

⁶² *Video Game Industry Commitments to Further Inform Consumer Purchases*, ENTERTAINMENT SOFTWARE ASSOCIATION, <https://www.theesa.com/perspectives/video-game-industry-commitments-to-further-inform-consumer-purchases/> (last visited Dec. 17, 2020).

⁶³ *Id.*

⁶⁴ *About ESRB*, ENTERTAINMENT SOFTWARE RATING BOARD, <https://www.esrb.org/about/> (last visited Dec. 17, 2020).

⁶⁵ Andy Chalk, *ESRB adds a new warning label for loot boxes*, PCGAMER (Apr. 13, 2020), <https://www.pcgamer.com/esrb-adds-a-new-warning-label-for-loot-boxes/>.

boxes, the label will also include a parenthetical “includes random items.”⁶⁶ While this is a step in the right direction, I doubt most players or parents of minor players will be looking closely enough at the label to make a purchasing decision based on these warnings. These self-regulatory measures seem to be more of an attempt to make government regulators believe that their industry can police itself. Given the increasing use of these predatory monetization practices over the past decade, despite severe criticism and backlash from consumers and the media, I do not believe what the ESRB done so far indicates that the industry is capable of policing itself.

B. THE NETHERLANDS

The Dutch government has had more success than the United States in implementing regulation of predatory microtransactions; however, the scope of these regulations is slight. Like most countries, they have specifically targeted loot boxes in their attempts at regulation.

In 2018, the Netherlands Gaming Authority (NGA) released the results of a study regarding loot boxes, and handed down a series of rulings regarding the legality of certain loot boxes in video games.⁶⁷ In fact, rather than changing the laws or adding regulations, the NGA simply applied current gambling laws to certain loot box microtransactions. In their ruling the NGA specified the difference between legal and illegal loot boxes. They ruled that when the random content in a loot box *is not transferable*, it is considered gaming, and therefore legal.⁶⁸ If the content of a loot box *is transferable*, then it is considered gambling and therefore illegal under Dutch law.⁶⁹ Games that were not found in compliance

⁶⁶ *Id.*

⁶⁷ *Loot boxes & Netherlands Gaming Authority's findings*, DUTCH GAMES ASSOCIATION, <https://dutchgamesassociation.nl/news/loot-boxes-netherlands-gaming-authoritys-findings/> (last visited Dec. 17, 2020).

⁶⁸ *Id.*

⁶⁹ *Id.*

within two months of the ruling would be illegal to sell in the Netherlands.⁷⁰

This is a relatively limited regulation when looking at the entirety of loot box microtransactions. Most content that comes from loot boxes in video games is not transferrable: gamers cannot trade the contents received for real world dollars.⁷¹ A basic example of this are the loot boxes in the popular first-person shooter *Overwatch*.⁷² With the purchase of a standard loot box in *Overwatch*, players receive five items of varying rarity, and are added to the personal archive of skins, emotes, and other cosmetic additions. These items cannot be sent to other accounts: they are permanently associated with the purchaser's account. There is a small subset of games that allow purchases to be transferred between accounts, which is what the Netherlands government targeted with their 2018 ruling. A popular game where items are transferrable is EA Sports FIFA series.⁷³ In *Ultimate Team* game mode, players purchase loot boxes with both real world and in-game currencies that include soccer player "cards" with varying stats and rarity.⁷⁴ These player cards are used to form a team that can compete in online tournaments. While players cannot sell these cards for real world currency in-game, they can purchase them with in-game currency, which can easily be obtained by spending real world currency. While these games do not directly let the player trade content for cash and vice versa, but players are indirectly allowed to do so. This can create a dangerous cycle of impulse

⁷⁰ *Id.*

⁷¹ See Joel Hruska, *The Netherlands Declares Some Loot Boxes Illegal, Warns Developers to Modify Them*, ExtremeTech (Apr. 23, 2018), <https://www.extremetech.com/extreme/267994-the-netherlands-declares-some-loot-boxes-illegal-warns-developers-to-modify-them>.

⁷² See generally *OVERWATCH*, <https://playoverwatch.com/en-us/> (last visited Dec. 17, 2020).

⁷³ See generally *EA SPORTS FIFA*, <https://www.ea.com/games/fifa> (last visited Dec. 17, 2020).

⁷⁴ See *FIFA 21 Ultimate Team*, ELECTRONIC ARTS, <https://www.ea.com/games/fifa/ultimate-team/fut-app> (last visited Dec. 17, 2020).

spending. Most loot boxes in the FIFA series do not give even a chance of a top-tier player card. New players may spend significant money before they recognize the futility of their purchases. They will play in online tournaments and get crushed by players who have spent significantly more than them on these cards. Losing these games creates the loss aversion behavior discussed in Section II, encouraging players to get that next hit of dopamine by buying the players that will make their team successful. Players will then look to the in-game trading markets and find the specific card they want in order to improve their team. While they can only buy it with in-game currency, they can obtain that currency easily by spending real cash. Players have spent hundreds to thousands of dollars on these cards in FIFA and other game series, especially in sports games like Madden NFL⁷⁵ and NBA 2K.⁷⁶

C. BELGIUM

The Belgian government, much like the Dutch government, did not create new regulations to enforce restrictions on predatory microtransactions. Instead of proposing new regulations, as the United States has attempted, they expanded the scope of the Gaming Act of 7 May 1999.⁷⁷ In 2018, after the Belgian Gaming Commission completed its report on loot boxes,⁷⁸ they determined that loot boxes, as traditionally understood, constituted a form of

⁷⁵ See generally EA SPORTS MADDEN NFL 21, <https://www.ea.com/games/madden-nfl> (last visited Dec. 17, 2020).

⁷⁶ See generally NBA 2K21, <https://www.nba2k.com/> (last visited Dec. 17, 2020).

⁷⁷ See [Act on games of chance, betting, gaming establishments and the protection for players] of May 7, 1999, https://www.gamingcommission.be/opencms/opencms/jhksweb_en/law/law/ (last visited Dec. 17, 2020).

⁷⁸ Federal Public Service for Justice Gaming Commission [of Belgium], *Research Report on Loot Boxes* (Apr. 2018), https://www.gamingcommission.be/opencms/export/sites/default/jhksweb_nl/documents/onderzoeksrapport-loot-boxen-Engels-publicatie.pdf.

illegal gambling.⁷⁹ In doing so, the Belgian government took the rulings from the Netherlands a step further by banning all loot boxes purchased for real money.⁸⁰

This expansion of the Gaming act constitutes one of the most definitive crack downs on predatory microtransactions. While it doesn't address pay-to-win mechanics specifically, there were no half measures in determining the legality of real money loot box purchases. In fact, the Belgian Gaming Commission laid out specific fines and criminal liability for gaming companies that violate their regulations.⁸¹ The Belgian government released a statement on April 25, 2018, stating that companies that fail to remove the microtransactions specified as illegal could be fined up to €800,000 and up to five years in prison.⁸² Moreover, these fines and punishments can be doubled when there are minors involved.⁸³

They also took a much more expansive approach to what kind of loot boxes were banned. Essentially, all loot boxes were banned if they could be purchased for real world currency. This includes microtransactions like the ones sold in Activision-Blizzard's *Overwatch*, which were deemed acceptable in the Netherlands. Under Belgian regulations, it does not matter if the items in the loot box are purely cosmetic and not tradable; if they can be purchasable using cash, the entire game would be banned until found in compliance with these regulations. The Belgian minister of justice, Koen Geens, stated that it did not matter if there was no "financial

⁷⁹ Tom Gerken, *Video game loot boxes declared illegal under Belgium gambling laws*, BBC NEWS (Apr. 26, 2018), <https://www.bbc.com/news/technology-43906306>.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² Press Release, *Loot boxen in drie videogames in strijd met kansspelwetgeving* [*Loot boxes in three video games in violation of gambling laws*] KOEN GEENS: FEDERAAL VOKSVERTEGENWOORDIGER (Apr. 25, 2018), <https://www.koengeens.be/news/2018/04/25/loot-boxen-in-drie-videogames-in-strijd-met-kansspelwetgeving>.

⁸³ Gerken, *supra* note 79.

incentive to buying loot boxes.”⁸⁴ Geens continued, saying that even if players do not win money as a result of purchasing these boxes, they are “still a game of chance.”⁸⁵ The reasoning for this broad rejection of loot box monetization practices is based on the government’s fear of exacerbating gambling addiction, particularly for children.⁸⁶ “It is often children who come into contact with such systems and we cannot allow that,” Geens said.⁸⁷ While their stated goal was to protect children, their legislation went a step further in completely banning these monetization practices from games sold in Belgium.

The Belgian government’s swift regulatory action was taken very seriously by the industry. While companies like 2K Games disagreed with the ruling and began lobbying for a reconsideration of these regulations,⁸⁸ they generally complied with these requirements. 2K Games removed the ability to purchase card packs from their popular NBA 2K series with real-world currency; players could only attain these card packs through in-game progress.⁸⁹ Activision-Blizzard followed suit with their popular titles *Overwatch* and *Heroes of the Storm*,⁹⁰ the latter game being particularly interesting as the games monetized almost entirely by loot boxes. *Heroes of the Storm*⁹¹ is a “free” game, and disabling

⁸⁴ Keza MacDonald, *Belgium is right to class video game loot boxes as child gambling*, THE GUARDIAN (Apr. 26, 2018, 8:16 AM EDT), <https://www.theguardian.com/games/2018/apr/26/belgium-is-right-to-legislate-against-video-game-loot-boxes>.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ Haru Nicol, *2K Games Asks Fans to Contact Belgian Government About Loot Boxes*, GAMEREVOLUTION (Sept. 4, 2018), <https://www.gamerevolution.com/news/426475-2k-games-asks-fans-to-contact-belgian-government-about-loot-boxes>.

⁸⁹ *Id.*

⁹⁰ Dustin Bailey, *Blizzard kills loot boxes for Overwatch and HotS in Belgium*, PCGAMESN (Aug. 27, 2018), <https://www.pcgamesn.com/overwatch/overwatch-belgium-loot-boxes>.

⁹¹ See generally HEROES OF THE STORM, <https://heroesofthestorm.com/en-us/> (last visited Dec. 17, 2020).

the loot box features made it impossible for Activision-Blizzard to profit from it.

The gaming industry's reaction to Belgium's regulations has been varied. Most of the large game publishers, including Electronic Arts, Ubisoft, and Activision-Blizzard, did not increase prices on their standard \$60 video games after the regulatory crackdown.⁹² This raises some serious questions. It is clear from industry financial data that microtransactions have increased profitability of video games by a significant margin. If banning these monetization practices in a relatively large market like Belgium didn't cause major game publishers to react by raising prices, what are they doing to make up the loss in revenue? No multi-billion-dollar business is going to simply cut their losses and accept these regulations without making up the difference elsewhere. How have they changed their business model, and how are they planning on operating in countries like Belgium going forward? Could there be an increased focus on developing games that are cheaper to produce? Are these games companies hoping that their customers will push back against microtransaction regulations, or are they simply going to focus marketing and sales efforts on countries with more relaxed regulations? All of these questions remain unanswered at this time, as there have been no overt changes to the business models of larger video games companies.

There has, however, been one significant outlier among the larger games developers and producers: Nintendo, a flagship Japanese company in the gaming industry, reacted quite differently to Belgian regulations. Upon the Belgian Minister of Justice's approval of the Belgian Gaming Commission's recommendations, Nintendo removed two of their free mobile games, Animal

⁹² It should be noted that, since the release of the new generation of video game consoles in November 2020, most of the flagship video game publishers plan to raise the price of a standard video game to \$70 USD. This price increase is expected to hit all markets, regardless of the strength of national microtransaction regulation in each individual country.

Crossing: Pocket Camp⁹³ and Fire Emblem Heroes,⁹⁴ from Belgian mobile app stores.⁹⁵ In a statement from the company's official website, Nintendo said "due to the current unclear situation in Belgium regarding certain in-game revenue models, we have decided to end the service" of these two games.⁹⁶ While this action surprised some in the industry, as most of the leading video game publishers decided to comply with Belgian law, it is not particularly surprising when examining the revenue models for these games. While Animal Crossing, Pocket Camp and Fire Emblem Heroes have made over \$150 million⁹⁷ and over \$500 million,⁹⁸ respectively, these games are free downloads and monetized entirely by microtransactions, most of which would be banned by Belgian regulation. It appears that Nintendo decided to play hard ball with the Belgian government; they decided that, one way or another, the costs of complying with Belgian law outweighed the benefits of selling in the region. They could have made this decision for a number of reasons. For one, it is possible that their sales in Belgium were not strong enough to justify compliance. They could have reworked their monetization strategy in order to continue to make

⁹³ See generally ANIMAL CROSSING: POCKET CAMP, <https://ac-pocketcamp.com/en-US> (last visited Dec. 17, 2020).

⁹⁴ See generally FIRE EMBLEM: HEROES, <https://fire-emblem-heroes.com/en/> (last visited Dec. 17, 2020).

⁹⁵ Tom Ivan, *Nintendo shutting down selected mobile games in Belgium*, VIDEO GAMES CHRONICLES (May 21, 2019), <https://www.videogameschronicle.com/news/nintendo-shutting-down-selected-mobile-games-in-belgium/>.

⁹⁶ *Belangrijke informatie voor gebruikers in België* [Important information for users in Belgium], NINTENDO OF EUROPE (May 21, 2019), <https://www.nintendo.be/nl/Nieuws/2019/mei/Belangrijke-informatie-voor-gebruikers-in-Belgie-1561911.html>.

⁹⁷ Matthew Forde, *Animal Crossing: Pocket Camp clears \$150 million in lifetime revenue*, POCKETGAMER (May 6, 2020), <https://www.pocketgamer.biz/asia/news/73298/animal-crossing-pocket-camp-150-million-usd-lifetime-revenue/>.

⁹⁸ Matthew Forde, *Fire Emblem Heroes has grossed over \$500 million in two years*, POCKETGAMER (Feb. 13, 2020), <https://www.pocketgamer.biz/asia/news/70015/fire-emblem-heroes-has-grossed-over-500-million-in-two-years/>.

money in Belgium, but they chose not to. Another possible reason is a fear of the precedent compliance would set. Nintendo is not the only company concerned with the movement to ban loot boxes and similar microtransactions. As previously stated, these companies have become absurdly profitable because of these monetization tactics. If they set the precedent that these features can be turned off and the game can remain profitable, other countries may follow suit and chip away at their predatory monetization practices.

D. JAPAN

The Japanese government was one of the first to recognize the potential dangers of predatory monetization in video games. Not only that, the notorious “Gacha machines” in Japan may have been the precursor to what eventually became digital loot boxes.⁹⁹ To understand how and why the Japanese government began regulating loot box-like microtransactions, one has to look at the history of these mechanics in Japan and the influence of “gacha.”

The advent of Japanese Gacha machines came long before similar monetization strategies in video games. Gacha machines are vending machines that give out capsules with randomized toys inside them.¹⁰⁰ These machines were the physical equivalent to a digital loot box: the player pays up and gets a random toy with varying degrees of rarity. In 2011, this type of monetization naturally made its way into mobile games.¹⁰¹ It had instant success. The first game to utilize this type of monetization, *Puzzle & Dragons*,¹⁰² netted over \$1 billion.¹⁰³ This “free” game and its successors implemented loot boxes that gave out prizes that were

⁹⁹ Vic Hood, *What the UK can learn from the Far East’s battle with loot boxes*, EUROGAMER (last updated Oct. 23, 2017), <https://www.eurogamer.net/articles/2017-10-19-what-the-uk-can-learn-from-the-far-east-s-battle-with-loot-boxes>.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² See generally PUZZLE & DRAGONS, <https://www.puzzleanddragons.us/> (last visited Dec. 17, 2020).

¹⁰³ Hood, *supra* note 99.

not just cosmetic additions but were integral to winning the game.¹⁰⁴ Japanese regulators soon recognized that this type of microtransaction was the equivalent of gambling.¹⁰⁵

In 2012, Japan's Consumer Affairs Agency (CAA) determined that "complete gacha" mechanics in video games were illegal.¹⁰⁶ Like many European nations who have regulated loot boxes, they did so by enforcing regulations that had already been implemented. However, Japan's attempt at regulation was quite limited, and there has been no additional follow through or attempts to further regulate microtransactions. The reason why their regulation was so limited was because the ban was only on "complete gacha" games.¹⁰⁷ Complete gacha games are ones where players need to acquire a set of random items in order to get a rarer item, often in order to progress further in the game.¹⁰⁸ Essentially, it is a more extreme version of loot boxes discussed above where players need items from several loot boxes to get a rare item. The Japanese regulators saw these mechanics as a bridge too far, as there were customers paying excessive amounts in order to acquire virtual items.

While these regulations seem minimal compared to the ones later enforced in Belgium, this had a significant effect on Japanese gaming companies. After it was reported in the news that the CAA would be cracking down on these types of mechanics, the stock price in several of Japan's most prominent gaming companies dropped significantly.¹⁰⁹ The drop in value of these companies exemplified how profitable these monetization practices are. Without them,

¹⁰⁴ LaPetiteJort, *Gacha System*, GIANT BOMB, <https://www.giantbomb.com/gacha-system/3015-8997/#:~:text=The%20gacha%20system%20is%20a,games%20ever%20released%20in%20Japan> (last updated Mar. 5, 2020).

¹⁰⁵ Hood, *supra* note 99.

¹⁰⁶ Steve Peterson, *Gree, DeNA Stocks Plunge as Japanese Government Cracks Down*, GAMESINDUSTRY.BIZ (May 7, 2012), <https://www.gamesindustry.biz/articles/2012-05-07-gree-dena-stocks-plunge-as-japanese-government-cracks-down>.

¹⁰⁷ *See id.*

¹⁰⁸ *Id.*

¹⁰⁹ *See id.*

video game companies lose a significant amount of revenue. This led to an attempt to self-regulate in the industry to prevent further regulation from the Japanese government.¹¹⁰ Two of the biggest video game developers in Japan, GREE and DeNA, formed a trade association known as the Japan Social Game Association.¹¹¹ They provided guidelines for transparency with regard to microtransactions, like providing “probability ratios” for items in gacha games and loot boxes.¹¹² However, this organization ultimately was unsuccessful in conducting any proper self-policing in the industry and eventually dissolved in 2015.¹¹³ Even though this attempt did not succeed, it made clear that the industry has been taking the threats of regulation from governing authorities seriously.

E. CHINA

China has taken a more comprehensive approach than other nations in attempting to curb video game addiction and gambling addiction that result from microtransactions. For example, instead of simply outright banning loot boxes and gacha mechanics, they have provided strict rules for what makes them either illegal gambling or legal gaming mechanics. In China, gambling is prohibited, but the Chinese regulators can decide what constitutes “gambling.”¹¹⁴ Chinese authorities have immense power over corporations that do business within their state, and so there has been little to no backlash against the regulations they have begun to impose in recent years.

¹¹⁰ Hood, *supra* note 99.

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

¹¹⁴ Tracey Tang, *China: A Middle-Ground Approach: How China Regulates Loot Boxes and Gambling Features in Online Games*, MONDAQ (May 16, 2018), <https://www.mondaq.com/china/gaming/672860/a-middle-ground-approach-how-china-regulates-loot-boxes-and-gambling-features-in-online-games>.

The Chinese Ministry of Culture began cracking down on predatory microtransactions in 2017.¹¹⁵ In May of 2017, the Ministry of Culture declared that (i) loot boxes that could be purchased directly with real or in-game currencies are banned, (ii) the items contained in loot boxes must be attainable in-game, and (iii) all companies who use loot box monetization in their games must disclose information¹¹⁶ about all items within the pool of items in the loot box ecosystem, along with the drop rates of each item with a loot box purchase.¹¹⁷ Chinese authorities also ruled that these companies could not use loot boxes in a way that created a “compulsion loop.”¹¹⁸ This rule means that these items must be acquirable outside of the loot box mechanics themselves, so players do not get addicted to the loot box gambling-like mechanics. While these are very strict regulations, the Chinese government did not entirely ban loot boxes from their country. They understood that loot boxes can “[increase] fun, engagement and monetization of online games,” but also wanted to avoid game developers turning their games into virtual casinos.¹¹⁹ So, while a player could not purchase a loot box directly, they could be gifted to players to reward progress.¹²⁰

China’s crack down on microtransactions and video game addiction in general did not stop there. In November 2019, the Chinese government implemented new regulations that limited the amount of time minors could play video game in a given day and the amount they could spend on microtransactions as a whole.¹²¹

¹¹⁵ *Id.*

¹¹⁶ Some of the information revealed in these disclosures was staggering: a number of game developers were selling loot boxes with items where there was a .1% chance of acquiring them.

¹¹⁷ Tang, *supra* note 114.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ Javier C. Hernández & Albee Zhang, *90 Minutes a Day, Until 10 P.M.: China Sets Rules for Young Gamers*, NEW YORK TIMES (last updated Nov. 8, 2019), <https://www.nytimes.com/2019/11/06/business/china-video-game-ban-young.html>.

According to the regulations stated by China's National Press and Publication Administration, users under eighteen years old are not allowed to play video games between ten p.m. and eight a.m., and they cannot "play more than 90 minutes on weekdays and three hours on weekends or holidays."¹²² While that part of the 2019 regulations is not directly related to microtransactions, the Chinese authorities also limited the amount of money that minor-aged users could spend on microtransactions.¹²³ Depending on a user's age, they could spend between \$28 to \$57 maximum per month on skins and other in-game items.¹²⁴

The Chinese approach to regulation is unique; they are not simply trying to address concerns about their citizens overspending as a result of their addiction. The regulation targets addiction itself; even if these loot boxes could not be purchased with real money, the monetization tactic was not approved if it manipulates consumers into becoming addicted to their products. China takes a rather authoritarian approach to addiction generally and has begun to focus on youth video game addiction in recent years.

However, there have been attempts by prominent companies to skirt Chinese regulations. Activision-Blizzard managed to get around China's loot box restrictions through patently deceptive means. Their flagship title, *Overwatch*, which was highly popular in China, initially removed their loot boxes to comply with the Chinese regulations.¹²⁵ Activision-Blizzard later reintroduced them, but the method of acquiring them had changed. Instead of directly purchasing loot boxes, players can purchase in-game currency; as a "gift" for the purchase of that currency, players get a set number of loot boxes.¹²⁶ Surprisingly, there are no reports of

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ Alex Ziebart, *Overwatch China changes loot box purchases to dodge gambling laws*, BLIZZARD WATCH (Jun. 6, 2017), <https://blizzardwatch.com/2017/06/06/new-way-buy-overwatch-loot-boxes-china/>.

¹²⁶ *Id.*

Chinese authorities cracking down on this process. This could indicate that they believe loot boxes are only a part of their grand plan to curtail video game addiction.

V. CONCLUSION AND REGULATORY PROPOSAL

As this article makes clear, there are a number of ways to approach the issue of predatory microtransactions. Some governments have limited the scope of what constitutes illegal or manipulative purchases, and most are focused on the harm it causes children. That being said, I do not believe any country has managed to create a comprehensive regulatory framework to combat the more insidious and predatory microtransactions, especially pay-to-win microtransactions.

If I were to choose one of the above countries' regulatory models to build upon, I would pick Belgium's. Their law is bold enough to require companies to substantially change their games, and has been unafraid of backlash from the industry or a potential loss of tax revenue from banning the sale of immensely popular games. I also find that the threat of criminal liability for noncompliance against the officer in charge of corporations like Electronic Arts provide a strong deterrent for implementing these mechanics. While companies as large as 2K Interactive can handle massive fines, I doubt their officers are willing to go to jail over loot boxes. So far, the larger game publishers have not raised their game prices in Belgium as a result of the ban of loot boxes, and only one has completely removed their games from their market. It appears that, as of 2020, video game companies have not tried to circumvent the rules in Belgium in order to reinsert loot boxes of some form into their games.

However, I do not believe even Belgium goes far enough to eliminate the problem they intend to solve. The Belgian authorities claim they are attempting to stop games from becoming virtual casinos and insidiously prey on those who normally would not participate in gambling, yet they've ignored pay-to-win mechanics in microtransactions—exclusively focusing on loot boxes. I believe this shows Belgian authorities either don't fully understand the issue of predatory microtransactions, or they are simply unwilling to "go to the mat" on these issues with the gaming industry.

Another problem with the Belgian model of regulation is that it may not be effective in our global economy. Unless other countries follow suit and adopt similar regulations, game companies could simply freeze out the industry like Nintendo did. Consumers want to play these games and will likely demand their government relax their regulations if sought-after games become banned in their home country. As long as national governments of countries that purchase large numbers of video games, like the United States, fail to regulate microtransactions in any meaningful sense, other national governments may not have long-term bargaining power to keep these companies from implementing these manipulative monetization practices. It also, inadvertently, could hurt the economy of countries like Belgium. If companies like Electronic Arts decide to stop selling FIFA games in Belgium, it is likely that their citizens who are desperate to play will simply buy the game from another country. While it would likely barely dent a large economy, the loss of video game sales for retail businesses in Belgium could be impactful.

I do acknowledge that not all of these microtransactions are manipulative or insidious. Many microtransactions are simply standard purchases: players see a character skin or other cosmetic item they want, and can purchase it directly for a small fee. This does not use manipulative monetization tactics to keep player invested spending. Also, many microtransactions are purely cosmetic and do not affect gameplay itself. However, these uncontroversial microtransactions are often used as a cover for video game companies to claim that *their* microtransactions are not manipulative. These companies point to games that have been viewed to have “fair” microtransaction mechanics to muddy the waters and make regulating them a more difficult task.

My proposal to solve the issue of predatory microtransactions would begin by giving each country’s gaming commission the power to, on a case-by-case basis, analyze whether a game’s microtransaction mechanics are misleading, manipulative, or alter gameplay significantly. If a country’s gaming commission already has similar regulations for traditional gambling, like the Belgian gaming commission, then the current regulations can expand the scope of their regulation to explicitly include modern video game monetization practices. If a country doesn’t have a gaming

commission, they should model one on the laws similar to the Netherlands or Belgium.

Game developers and publishers would be unable to sell their games in a country until the gaming commission has approved of their use of microtransactions. This stands in contrast to the often rigid regulations that other countries have implemented that strictly allow or disallow certain microtransactions. My proposal for giving more agency power to gaming commissions is purposefully vague. The reason why I would not create any bright line rules is to prevent games companies from attempting to side-step regulations. As discussed, even in an authoritarian state like China, games companies have managed to circumvent the law and defeat its intended purpose by indirectly allowing loot box purchases as “gifts.”¹²⁷ Electronic Arts has also attempted to circumvent regulation by claiming their loot boxes are not actually loot boxes: they are “surprise mechanics.” These corporations will clearly attempt any possible means to bypass regulation, as these predatory monetization tactics have been incredibly profitable. While this process inevitably may slow down the speed at which games will be brought to the market, the social benefits of curbing these practices outweigh the potential financial cost to gaming companies. And, over time, the evaluation and approval process for games will become streamlined as the gaming commission becomes more familiar with how these companies implement microtransaction mechanics.

In my proposal, the gaming commission would be required to submit a public report detailing why a particular game was found compliant or noncompliant. By releasing public reports, over time these games developers and publishers will know what constitutes manipulative, misleading, or gameplay altering microtransactions, and adjust their games accordingly. By allowing the gaming commission to continuously review what constitutes a predatory microtransaction, it will prevent companies from adapting to regulations.

¹²⁷ *Id.*

In summary, while there is clearly no one-size-fits-all approach to regulating predatory microtransactions, what has been done so far simply is not enough. Gambling addictions continue to rise, consumers continue to overspend on these entertainment products, and profits from these insidious monetization practices continue to soar. Unless national governments take a stand and take video game microtransactions seriously, game companies will continue to push boundaries until there may be no significant difference between a real-life casino and a standard video game.