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LETTER FROM THE EDITOR

This has been a year of immense hardship and tragedy. Police brutality, systemic racism, and the COVID-19 pandemic have upended the lives of citizens across the globe. During times like these where togetherness is so badly needed, it is all the more painful that we have spent so much of our time in isolation. Now more than ever, a platform for sharing ideas and diverse perspectives with students and faculty across the country is incredibly valuable. Although we have missed out on so much of the human connection on which we thrive, the staff of DUJPEW is grateful for the opportunity to listen, read, and collaborate with our peers in the national undergraduate community.

Despite the trials of these polarizing and contentious times, we cannot shy away from discourse and conversation. Ideas must be shared with others, interrogated by listeners, and adapted when new information becomes available. Common ground cannot be reached if we do not look outside ourselves, and publications that amplify the voices of a wide body of undergraduate scholars are an invaluable tool for civil discussion. Dartmouth founder Eleazer Wheelock assigned our motto of “Vox Clamantis in Deserto,” or “a voice crying out in the wilderness.” He envisioned Dartmouth as an intellectual beacon in the woods, whose students would critically engage with and question difficult subjects and curiosities. DUJPEW’s aims are just that. Technology has enabled us to interface with students at a plethora of institutions, and our publication can serve as a vehicle for those voices to cry out from the wilderness.

We would like to thank the entire DUJPEW editorial staff for their dedication to, and enthusiasm for, launching this year’s issue. We are elated that you were all so willing to adapt to the remote format and keep DUJPEW alive. On behalf of the graduating seniors, Noah and Jonathan would also like to thank Addison for his critical work this year and we wish him the best of luck transitioning it back to an on-campus publication.

Additionally, we want to thank the entire staff of associate editors — your work was indispensable. We must also thank the many supportive professors, friends, and readers who continue to engage with and connect to the scholarship that we at DUJPEW bring to print. Finally, we must express my profound appreciation and admiration for the authors that provided the eight fantastic pieces of writing that comprise this year’s publication. We are so happy to provide a platform for your work, and we cannot wait to see what great things you will certainly accomplish in the future.

Noah Freundlich ‘21, Editor-in-Chief
Jonathan Briffault ‘21, President
Addison Dick ‘22, President
ARTICLES

5  The Cost of Subway Delays: A Counterfactual Welfare Analysis of Boston’s T
    Adam Dean, Brandeis University

23 Tracking the Tracing: A Global Investigation of Privacy Issues in the Age of
    COVID-19
    Jessie Miller, Claremont McKenna College

53  The Great Swedish Experiment
    Xiofan Gong & Michael Ratzkin, Cornell University

91 The Radicalization of the Far Right in Germany and Regional Disparities in
    Support
    Sophia Winograd, Princeton University

106 Understanding the Unique Spatial Relationships and Power Dynamics of
    China’s Urban Villages
    Kaitlyn Zhao, Cornell University

119 Sexual Violence and Sex Trafficking: An Observation of Developing
    International Law and Its Implementation
    Hannah Kate Albach, Pepperdine University

135 Weakening of the Nation-State by Climate Change: Water Weaponization by
    ISIL
    Annika Cole, Elon University

157 Minority Representation on the U.S. Court of Appeals: Do Foreign-Born Judges
    Influence Immigration Case Outcomes?
    Bianca Ortiz-Miskimen, Princeton University
The Cost of Subway Delays: A Counterfactual Welfare Analysis of Boston’s T

ADAM DEAN
Brandeis University

ABSTRACT: Boston’s subway system, the T, is an important artery for transportation in and around the city. However, it is the oldest subway system in the United States, and, as a result, is in dire need of upgrades. This paper employs a welfare analysis to calculate the economic cost of the T’s lack of reliability, while also comparing the T’s reliability rate to other transit systems around the world. With a counterfactual estimate of a 95 percent reliability rate versus the pre-pandemic 88.47 percent reliability rate, the difference in welfare is found to be between $54 million and $163 million annually. Thus, long overdue improvements to the T would have a significant impact on the overall welfare of the Boston metropolitan area, and serve as a great economic benefit to all stakeholders.

Introduction

In 2019, President Donald Trump and Democratic congressional leaders Chuck Schumer and Nancy Pelosi agreed to pursue a $2 trillion infrastructure plan. The display of bipartisanship illustrated the widespread agreement from across the political spectrum that America’s deteriorating infrastructure was in need of an upgrade. But like most infrastructure talk in recent years, the proposal failed to gain traction as lawmakers felt uneasy about the large costs and finding potential funding sources. State and federal legislators currently remain in stalemate about who will foot the bill for upcoming infrastructure projects across the country.

Boston’s subway, the T, is the oldest subway system in North America, thus making it a prime candidate for an infrastructure upgrade. In 2019, the Massachusetts Bay Transportation Authority (MBTA) released a 25-year investment plan that would modernize the regional transportation system, including the T, to best serve the needs of the region in the future. Like most transit agencies in the US, the MBTA cannot cover its costs, so shortfalls are financed by the state government. During the winter of 2015, brutal storms slammed the northeast, causing massive delays and even the complete suspension of certain transit lines for days. The poor performance brought public attention to MBTA’s issues. For example, at the time, almost one-fourth of the MBTA budget went towards servicing debt, with billions of dollars in infrastructure backlog. Following the 2015 winter disaster, the Governor of Massachusetts created a special panel to get the “MBTA Back on Track.” The panel successfully recommended a state-funded capital program to begin working through the billion-dollar backlog. However, with the onset of the COVID-19 pandemic, ridership has been decimated, threatening to impact the solvency of the agency.

As a result, funds have been shifted away from capital projects towards the immediate budget shortfall.
The pandemic will push back the day when the MBTA works through its infrastructure backlog and starts modernizing the T for the future. This will result in a continuance of the status quo costs even when ridership returns to normal. Policymakers and the MBTA have many cost-benefit analyses that explain the impacts of potential projects available to them. But being presented with just the costs and benefits of a particular project can allow policymakers to overlook the present costs delays. For every year policymakers avoid solutions to fix reliability problems, riders continue to deal with delays, which have real economic costs.

In this paper, I calculate the welfare difference between the pre-pandemic T and a hypothetical T with an improved reliability rate. This paper is a lower bound for the economic cost of subway delays because I only analyze the short-term welfare implications to consumers. In the conclusion, I will briefly explain why the long-term welfare effects are likely to be larger. I also do not explore the impact on road traffic from displaced riders nor what improved reliability would mean for employers. Additionally, I do not analyze how a more reliable public transit system would impact the environment and social equity.

In my estimate, I employ the consumer choice logit model, as created by Daniel McFadden, to estimate welfare differences. To construct my utility function, I use ridership, reliability, and line-specific data from the MBTA. With a counterfactual estimate of 95 percent reliability versus the pre-pandemic figure of 88.47 percent, I estimate the difference in the market’s welfare to be between $54 million and $163 million annually. This figure is meant to be used as the beginning of a welfare discussion because I estimate welfare implications only for consumers and not for the several other parties that are impacted by delays. Furthermore, these findings are not meant to advocate for immediate infrastructure funding, but rather to remind policymakers of the cost of maintaining the status quo.

This paper will proceed as follows. Section 2 provides background on public transit, the MBTA, and the use of consumer surplus as a welfare metric. Section 3 provides a literature review which summarizes existing studies on this topic. Section 4 shows where the data comes from and the limitations of the data. Section 5 describes the empirical strategy which employs the logit model. Section 6 presents the findings of the model and the discussion. Section 7 concludes the paper.

**Background**

**Benefits of Public Transit**

Public transit is an important asset for urban areas. This is because it is seen as beneficial to the economy, society, and environment. According to a 2020 report from the American Public Transportation Association, robust public transit allows consumers to save on vehicle ownership and maintenance, reduces traffic congestion and needed space for parking, and allows businesses access to a larger labor market. Further, effective public transit allows a variety of people access to the job market, schooling, healthcare, and leisure activities. Because they do not need to spend on a car, public transit provides individuals across the socioeconomic spectrum access to moving across a city. This benefit can also be extended to disabled people who are unable to drive, in cases where public transit is accessible. Lastly, public transportation’s efficient use of resources benefits the environment. Hundreds of countries across the world are trying to reduce their carbon dioxide emissions to limit the impacts of climate change. Public transit’s ability to move hundreds of people within a single subway car is a highly efficient use of resources. Fewer cars lead to reduced pollution.
The T

The MBTA is the fifth-largest public transportation system in the United States. It is also the oldest. Its divisions include rapid transit (the T), a bus system, the commuter rail, and a ferry. In 2019, weekday ridership of all MBTA services averaged 1.3 million people. The transit authority is a state entity that falls under the control of the Massachusetts Department of Transportation (MassDOT) and ultimately is overseen by the Governor.

The subway stretches across the Boston metropolitan area, including stations at Fenway Park, Logan International Airport, Harvard University, and Braintree, the suburb south of the city. The commuter rail feeds into North and South Stations in Boston and provides transfer points to the subway. The most ridden lines in order from greatest to least are the: Red Line, Orange Line, Green Line, and Blue Line. The system has had an 88.47 percent reliability rate since 2016. The clear laggard in reliability is the Green Line, as seen in Table 1.

The Green Line traces its origins back to the late 19th century when streetcars crisscrossed Boston in the same area the Green Line does today. The streetcars were first designated as a subway in 1897, when the Tremont Street tunnel was created and part of the streetcars’ route was put underground. The Green Line vehicles are still essentially streetcars, traveling above and below the streets. In contrast, the Red, Orange, and Blue Line vehicles are exclusively heavy rail, meaning that they are heavier trains that operate on devoted right-of-way tracks. It seems that the Green Line’s reliability issues are in part due to two main factors: above-ground traffic and tunnel entry and exit. Projected arrival and departure times include the knowledge that the Green Line may have to stop for traffic, yet delays remain substantial. Further discussion about reliability and its calculation is later in this paper.

At least every five years, the MBTA is required by the federal government to conduct a systemwide survey that gathers demographic, travel, and fare data. Among the pertinent findings to this paper from the 2015-17 survey were purpose and substitution data. Home-based work and home-based school trips made up 71.6 percent and 5.7 percent of trips, respectively. There are also data about alternative transportation options for people whose first choice was the T. If they were unable to take the T, most would opt for another MBTA service (~45%), while the second-most popular choice was driving alone (~24%).

Table 1: Summary Statistics of The T’s Lines

<table>
<thead>
<tr>
<th>Line</th>
<th>Reliability</th>
<th>Avg. Weekday Ridership (2019)</th>
<th>% of Ridership</th>
<th>Length of Track (mi)</th>
<th>End to End Time (min)</th>
<th>Year Founded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>90.09%</td>
<td>237,000</td>
<td>34%</td>
<td>45</td>
<td>~54</td>
<td>1912</td>
</tr>
<tr>
<td>Orange</td>
<td>91.95%</td>
<td>207,000</td>
<td>30%</td>
<td>22</td>
<td>~40</td>
<td>1901</td>
</tr>
<tr>
<td>Green</td>
<td>77.05%</td>
<td>177,000</td>
<td>26%</td>
<td>46</td>
<td>~59</td>
<td>1897</td>
</tr>
<tr>
<td>Blue</td>
<td>94.70%</td>
<td>71,000</td>
<td>10%</td>
<td>12</td>
<td>~23</td>
<td>1904</td>
</tr>
</tbody>
</table>

Source: MBTA Blue Book Open Data Portal

The State of the MBTA

In April 2015, the special assessment panel commissioned by Governor Charlie Baker released its report calling the “catastrophic winter breakdowns symptomatic of structural problems that require fundamental change in virtually all aspects of the MBTA.” The executive report exposed the shortcomings of the organization’s unsustainable operating budget, instability, and
lack of customer focus. The report also revealed interesting insights about the MBTA’s infrastructure issues.

A factor in the MBTA’s rising operational costs comes from the aging infrastructure. Across seven peer transit organizations across the country studied by the panel’s report, the MBTA had the oldest fleet of train cars. For example, the Red Line still uses vehicles made in the 1960s.Repeated capital underinvestment was one of the nine major findings in the report. While additional funding from the state, and potentially the federal government, will be needed to finance large capital projects, the MBTA has a history of diverting funds allocated to capital to operating expenses. In 2015, the public transit authority spent $66.5 million earmarked for capital projects on employee salaries instead. The commission found that from 2009 to 2015, the MBTA spent only $2.3 billion of the $4.5 billion it had planned to spend on capital construction. Billions of dollars in missing capital spending over just this six-year span helps to explain why the MBTA faces such a substantial infrastructure backlog.

The ramifications of reallocating capital funds can be seen in the MBTA’s capital backlog. The backlog is likely incomplete due to an inventory system that is not up to date or comprehensive. Nonetheless, in 2015, the MBTA said it had a service backlog of $6.7 billion to bring the equipment back to a State of Good Repair (SGR), a rating metric threshold for equipment quality. The report notes that due to the inadequate inventory system and underestimation of expenses, the backlog total is “unquestionably” higher. Items that directly impact reliability — such as vehicles, bridge signals, stations, track, and power — make up 85 percent of the backlog.

Another finding of the report was that when the MBTA does spend money on capital projects, it faces an elongated timeline. A recent morale boost for riders has been the occasional sighting of new train cars on the Red and Orange Lines. But the process behind the procurement of these vehicles illustrates the inefficiencies experienced by the MBTA. In 1994, 74 Red Line cars were due for retirement, and in 2004, 120 Orange Line cars were due for retirement. Despite having this information, the MBTA did not submit its first draft for buying new cars until 2008. It took another six years for the board to approve a builder for the cars. In 2020, the first non-test vehicle was supposed to be deployed, and in 2022, the MBTA should have the last car in its order delivered. If there are no further delays, it would mark 28 years from when the Red Line cars were supposed to be retired to when the old vehicles will be completely replaced. This lack of initiative to keep up with infrastructure maintenance is part of the reason why the T is in disarray.

The report recommended that all board members of the MBTA resign. Six of the seven ultimately did. But the resignation of past leadership and the implementation of new oversight have not been an instant fix for the organization. In 2018, three years after the report’s publication, the MBTA re-calculated a $10.1 billion figure for the maintenance and modernization of capital, a $3.4 billion increase from the initial estimate.

**Consumer Surplus**

An increase in reliability of the T would not directly put money in the pockets of the residents of the Boston metro region, but it would benefit them nonetheless. Consumer surplus is an economic principle that attempts to quantify this benefit, and this paper relies heavily on evaluating consumer surplus. The definition of consumer surplus is the difference between what consumers would be willing to pay for a product and what they actually pay. For example, if the price of a product decreased, with no changes in other factors, the consumer surplus would rise. Alternatively, if the quality of a product improved and the price stayed the same, the consumer
would likely be willing to pay more for the product than before; this would also increase consumer surplus. The latter example is what this paper sets out to estimate.

**Literature Review**

The literature of consumer discrete choice begins with the work of Daniel McFadden, the 2000 co-laureate of the Nobel Prize in Economics. *The Measurement of Urban Travel Demand* (1974) is where McFadden created the logit model to empirically analyze consumer behavior in BART (Bay Area Rapid Transit). I use McFadden’s model, as described by Kenneth Train’s textbook, to make my consumer surplus estimates for the T.

Outside of McFadden’s work, much of the economic literature falls short of actually estimating costs to consumers from delays or subpar access. Instead, most economic studies focus on different components of a large-scale welfare calculation.

Van Oort (2016) is one of the few papers that quantifies the costs to passengers. By studying a new tram line in Utrecht, Netherlands, the paper found benefits resulting from reliability increases accounted for two-thirds of total benefits. The estimate was done through simulating a counterfactual estimation but did not use a logit model. The analysis also claimed its findings were important to convince policymakers to support the project.

There are various papers that study the relationship between general welfare, public transportation, and transit efficiency. Benezech and Coulombel (2013) calculated the marginal effect of reliability on expected travel costs due to changes in wait times, schedule delays, and congestion. Baum-Snow and Khan (2005) evaluated the extent to which urban rail network expansions in US cities have spurred new ridership and estimated partial welfare gains that came from traffic reduction and savings in car ownership. Lobo and Couto (2015) analyze the operational performance of European metro systems and determine what factors contribute to good transit performance. Another study calculated welfare losses not from reliability changes, but from fare hikes on the Madrid Metro. Fare hikes resulted in a welfare loss of 3.66% in income for low- and medium-income households, while the richest suffered a 1.5% reduction in welfare.

The New York City Comptroller (2017) released a rudimentary calculation that estimated large-scale economic costs from delays with extensive data. By looking at ridership, magnitude of delays, and assuming a $34 hourly average wage, the report put the city’s losses in 2016 in the range of $170 million to $389 million. The costs were justified because of lost productivity for businesses and lost wages for workers. Economic loss estimates were also given for each line of the Metropolitan Transit Authority (MTA).

There is substantial literature for estimating welfare gains from social media through the use of the logit model and willingness-to-accept experiments: Alcott et al. (2018), Brynjolfsson et al. (2019), Corrigan et al. (2018), Mosquera et al. (2018), and Sunstein (2019). One study found the welfare difference in the US between not having Facebook in 2003 to having it in 2017 was $231 billion.

There have been several transportation-delay welfare studies in the airline industry as well. One paper found that flight delays on airlines negatively affect consumer demand and increase average fares. The study found that a 10 percent reduction in delays would yield a consumer surplus gain of $1.48 per passenger; a 20 percent reduction in delays would yield $3.06 per passenger. The paper was not completely comprehensive, however, as it was a partial equilibrium analysis. Welfare could change as passengers shift from other transportation sectors, like cars. Yima (2017) found that on average, the welfare costs of airline delays to consumers at their final destination to be $1.38, $1.07 and $0.91 per minute in short-, mid- and long-haul markets,
respectively. Several studies also look at the relationship between airline delays and consumer demand, but do not estimate welfare changes.

Data

MBTA Data

Nearly all of the data I use in this paper come from the MBTA Open Data Portal, created in 2015 in response to the winter disaster. The first dataset I analyze concerns reliability, which includes specific figures on reliability, date, line, and a peak indicator. In a partnership with MIT, the MBTA developed an Origin-Destination-Transfer (ODX) model that estimates reliability by analyzing Charlie Card (the T’s subway pass) data. Predicating the origin of a rider is simple as it is where a Charlie Card is first swiped. But since the T does not require swipes to exit a station, the destination is predicted by identifying the next location where the same Charlie Card is swiped. Transfers are predicted using a similar methodology with spatial and logical checks. From the sample of Charlie Cards that it analyzes, the model extrapolates the reliability metric for riders across the system.

The reliability metric is calculated as the number of people unaffected by delays divided by the number of total riders. For example, if 900 people out of 1,000 were unaffected by delays, then the reliability of that line would be 90 percent for the given time period.

There is criticism about who qualifies as being unaffected by delays. Subway trains arrive on scheduled intervals, or headways. If a subway train is supposed to arrive every five minutes, it is said to have a five-minute headway. A common understanding of subway delays would classify any train that arrives after its scheduled time as being delayed and the passengers boarding that train as having been affected. But the MBTA measures the unaffected portion of reliability as the number of riders that board a train within the scheduled headway time starting when they enter the station. This interpretation means that a person could board a delayed train and be counted as being unaffected by delays.

Figure 1 illustrates this counting phenomenon. Suppose a train had a five-minute headway, but it came to a station two minutes late, making the headway seven minutes. In a typical interpretation of delays, no matter when a rider arrived at the station, anyone boarding the late train would be deemed affected. However, the MBTA would not include every rider as having faced a delay and would opt instead to analyze when riders arrived at the station to determine if they were impacted. Suppose for the same five-minute headway train that arrived two minutes late, there were two riders who entered the station planning to ride the train. Rider 1 arrived at the one-minute mark of the five-minute headway interval, and Rider 2 arrived at the three-minute point. Since the train arrived two minutes late, Riders 1 and 2 will have waited six and four minutes for the train, respectively. Rider 1 will be counted as having been affected by delays, but not Rider 2, even though they both ultimately board on a train that was late to the station. Yes, Rider 2 does wait less than the scheduled headway time of five minutes. But had the train been on time, Rider 2 would have saved two minutes in wait time. The criticism of the metric is that it underestimates delays because it does not count everyone who would have saved time if a given train arrived as scheduled.

A second issue from the MBTA definition of reliability is that the model assumes that everyone who waits for a train during rush hour is able to get on one. Due to overcrowding, this is not always true.
However, despite the shortcomings of the metric, the reliability metric still gives valuable insight about the performance of the T.

**Figure 1: MBTA Reliability Definition**

![MBTA Reliability Definition](Source: MBTA Data Blog)

Two other data sets from the MBTA that I employ are the gated entries and monthly ridership data. The ridership data is at the monthly level because the MBTA gathers data through multiple sources (passenger counters, fare collection, counts, etc.) and adjusts the tally at the end of the month to account for fare evaders and system errors. Because my reliability data is at the daily level, this created a data mismatch. To solve this problem, I used gated entry data, which is also at the daily level. The proportionality of the gated entry data did not align with the share of ridership for each line at the monthly level because the green line does not collect gated entries at overground stations. To address this issue, I generated a new daily ridership variable that adhered to the proportionality of the ridership data at the monthly level and included the day-to-day fluctuations in magnitude from the gated entry data. This daily ridership variable is not precisely what ridership was on that day, but it is close enough that no integrity issues exist.

**Other Subways’ Reliabilities**

As previously mentioned, the reliability of the T is 88.47 percent, with the Red, Orange, Green, and Blue Lines having reliabilities of 90.09, 91.95, 77.05, and 94.70 percent, respectively. To estimate a counterfactual in reliability, I wanted to place its reliability rates in context with other systems around the world. Two difficulties emerged: many subway systems do not easily share performance data and reliability definitions can vary by system. Nonetheless, I was able to procure figures for a handful of subway systems that had similar definitions of reliability. In the results section, I will discuss why I choose to focus on a counterfactual reliability of 95 percent.

**Table 2: Reliability Rates of International Subway Systems**

<table>
<thead>
<tr>
<th>Urban Area</th>
<th>Average Weekday Ridership</th>
<th>Reliability Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>692,000</td>
<td>88.6</td>
</tr>
<tr>
<td>Berlin</td>
<td>1,500,000</td>
<td>96.3</td>
</tr>
<tr>
<td>Glasgow</td>
<td>52,000</td>
<td>95.0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4,962,000</td>
<td>99.9</td>
</tr>
<tr>
<td>New York City</td>
<td>5,700,000</td>
<td>84.0</td>
</tr>
<tr>
<td>Paris</td>
<td>4,160,000</td>
<td>98.2*</td>
</tr>
<tr>
<td>São Paulo</td>
<td>5,300,000</td>
<td>99.3*</td>
</tr>
<tr>
<td>Seoul</td>
<td>13,000,000</td>
<td>99.9</td>
</tr>
</tbody>
</table>
Additional Data and Notes

Later in this paper, I discuss instrumenting for reliability because of endogeneity issues in my regression. One of the instruments I use for this is weather data (precipitation levels and average temperatures) from the National Weather Service.

The period for all data starts in 2016 and continues to the present. However, due to the pandemic, the last month in the data is February 2020. The analysis excludes weekend data to allow for certain regression controls and to simplify the analysis.

To calculate utility, I needed to determine the T’s market share. To do this, I had to produce an estimate of the market size for potential T riders. The US Census has done analyses that estimate the daytime populations of Suffolk County (the county that Boston resides) and Somerville (a suburb of Boston). The 2010 analyses found that Suffolk Country grows around 33 percent during the day and the neighboring suburbs decrease by a similar factor. I collected population data for Suffolk County and Boston’s surrounding cities that are not in Suffolk County but still have easy access to the T (Cambridge, Somerville, Brookline, Newton, Medford, Malden, Everett). Lastly, I transformed these populations by the proportions found by the US Census analyses and added the figures together to get a market size of 1,440,000 people.
Variables Summary Statistics

Table 3: Summary Statistics of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>10,254</td>
<td>2.256627</td>
<td>0.0794851</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Precipitation</td>
<td>10,254</td>
<td>0.1238268</td>
<td>0.2967151</td>
<td>0</td>
<td>2.68</td>
</tr>
<tr>
<td>TempAvg</td>
<td>10,254</td>
<td>52.3741</td>
<td>17.26458</td>
<td>0</td>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Precipitation</th>
<th>Temp Avg</th>
<th>Previous Day</th>
<th>Inverse Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Line</td>
<td>2.602</td>
<td>0.9470299</td>
<td>0.0324076</td>
<td>0.4745002</td>
</tr>
<tr>
<td>Green Line</td>
<td>2.563</td>
<td>0.7705131</td>
<td>0.0444417</td>
<td>0.428605</td>
</tr>
<tr>
<td>Orange Line</td>
<td>2.561</td>
<td>0.9195957</td>
<td>0.0470082</td>
<td>0.3962716</td>
</tr>
<tr>
<td>Red Line</td>
<td>2.528</td>
<td>0.9009723</td>
<td>0.0543583</td>
<td>0.1541655</td>
</tr>
<tr>
<td>Aggregate</td>
<td>10,254</td>
<td>0.8847025</td>
<td>0.0815763</td>
<td>0.1541655</td>
</tr>
</tbody>
</table>

Table 4: Reliability Instruments Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>Reliability</th>
<th>Precipitation</th>
<th>Temp Avg</th>
<th>Previous Day</th>
<th>Inverse Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precipitation</td>
<td>-0.0188</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temp Avg</td>
<td>-0.006</td>
<td>-0.001</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous Day</td>
<td>0.0873</td>
<td>0.0439</td>
<td>0.0004</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Inverse Reliability</td>
<td>0.951</td>
<td>-0.0188</td>
<td>-0.006</td>
<td>0.0873</td>
<td>1</td>
</tr>
</tbody>
</table>
Empirical Strategy

I employ Daniel McFadden’s logit model, as advocated by Kenneth Train in *Discrete Choice Models in Simulation*, to estimate the consumer surplus gain from improved reliability on the T. The logit model is useful in situations where consumers make a discrete choice (i.e. only choose one item out of several alternatives). For this context, I am looking at the probability of consumers choosing to ride the T versus all other alternatives, such as driving a car or even another MBTA service.

In the model, a person, \( n \), chooses among alternatives, \( j \). The conditional indirect mean utility, excluding the i.i.d. (identically independently distributed) error term, obtained from alternative choice \( j \) is represented by \( V \) in equation 1. \( V \) includes factors that I am able to observe such as the impact of prices, reliability, and weather. The error term, \( \varepsilon \), contains unobservable factors that affect utility and it is treated as random.

\[
U_{njt} = V_{jt} + \varepsilon_{njt} \quad (1)
\]

Train describes the logit choice possibilities, as derived by Daniel McFadden, in equation 2. The equation represents the possibility that decision maker \( n \) chooses alternative \( i \) over all other choices \( j \). The equation states that the probability the decision maker chooses choice \( i \) is the probability that the utility yielded by \( i \) is greater than that of \( j \). Through further derivation and substitution, Train rewrites the probability of decision maker \( n \) choosing alternative \( i \) over all other choices \( j \) in equation 3. Equation 3 includes the outside good, whose mean utility is normalized to 0.

\[
P_{ni} = \text{Prob}(V_{ni} + \varepsilon_{ni} > V_{nj} + \varepsilon_{nj}) \quad (2)
\]
\[ P_{ni} = \frac{e^{V_{ni}}}{\sum_j e^{V_{nj}}} = \frac{e^{V_{it}}}{1 + e^{V_{it}}} \]  

(3)

Consumer surplus is utility expressed in dollars. In this logit model, this is the dollar value of the decision that maximizes utility for consumers. Equation 4 shows that the expected consumer surplus for a decision maker, \( n \), is equal to the expected value of the maximizing utility choice divided by \( \alpha \), the marginal utility of income (the change in a person’s utility resulting from a one-unit change of their income).

\[ E(CS_n) = \frac{1}{\alpha} E[\max_j (V_{nj} + \epsilon_{nj})] = \frac{\log(1 + \exp(V_{jt}))}{\alpha} \]  

(4)

From this logit framework, it is quite simple to calculate the consumer surplus using the log-sum term, according to Train. The log-sum term is the log of the denominator of equation 3. Thus, the logit model allows me to estimate the change in consumer surplus between the status quo of the T and a more reliable counterfactual by calculating the two utilities and their log-sums. The difference between the two log-sums is the consumer surplus currently lost by consumers as the T remains behind on maintenance and technological upgrades. This consumer surplus is just for one person, an aggregate number is calculated by multiplying individual consumer surplus by the market size.

From the data provided by the MBTA open data portal, I am able to estimate a regression that predicts the utility that is needed for the logit model. The model is as follows:

\[
\text{mean utility}_t = \beta_0 + \beta_1 \text{Price}_t + \beta_2 \text{Reliability}_t + \beta_3 \text{Peak}_t + \gamma (\text{Controls})_t + \xi_t
\]

where \( \text{utility} \) is the natural log of the market share minus the natural log of the outside share (market share plus outside share is equal to 1)\(^1\), \( \text{price} \) is the price of a subway ticket without a pass, \( \text{reliability} \) is the value produced by the MBTA’s ODX model, \( \text{peak} \) is an indicator equal to 1 if it is peak time, and \( \gamma \) represents the various controls used. In every regression, I use time-fixed effects at the day, week, and year level and fixed effects by line. There is an endogeneity issue with this model because ridership is thought to have an effect on reliability. For example, larger crowds can create door-closing delays. To account for this problem, I instrument for reliability using several different variables. These include precipitation levels, average temperature, the reliability of the previous day, and the reliability of the inverse peak period.

**Results and Discussion**

In this section, I review the results of my logit model regression and the consumer surplus calculation. Table 1 presents the results of the three regressions, which are differentiated based on what instruments are included for reliability.

Initially, I included an interaction variable of reliability and peak to account for the difference in reliability during peak and nonpeak hours. But after further investigation, the statistical variation between reliability during on- and off-peak hours was near zero. This appeared odd, as one would think that increased ridership during peak hours would put extra stress on a subway system. However, peak hours only represent a small portion of operating hours for the T, while the off-peak period makes up the majority of the day. It is likely that the high incidence
of delays during the peak period is matched by the length of the off-peak period in terms of total delays. This understanding seems to be further supported by the lack of statistical significance for the peak variable in all three regressions.

Because none of the four instruments employed are strong, regressions 1 and 2 differ on the magnitude of the variable effects. Table 5 shows reliability regressed on the instruments. Despite all of the instruments having a theoretical case for being strong, inverse reliability is the only statistically significant, nonzero instrument. But since reliability does not have significant statistical variation between peak and non-peak periods, inverse reliability is highly correlated with reliability. This makes inverse reliability a poor instrument as well.

Although regressions 1 and 2 differ on the magnitude of their coefficients, they both have similar effects for the variables. As expected, the results show an increase in reliability would have a positive effect on utility. The reliability coefficients are statistically significant at the 95 percent confidence level.

From 2016 to 2019, the T had two fare increases. The three different price levels during the period of the study allow the model to take into account the effect of price on the market share interaction. Typical endogeneity issues are unlikely to exist because fare hikes were planned and announced far in advance. For both regressions, price has a negative effect on utility and those findings are statistically significant. The peak variable has a slight negative effect in the regressions, but it is not statistically significant. This could be because of the previously discussed disproportionate lengths of the peak and off-peak periods.

It is unclear which regression is closer to the true values of the utility function. regression 2 has similar effects to regression 3, which does not include any instrumentals. But a strong instrument might yield effects closer to regression 1. Thus, I use both regressions to create my consumer surplus findings.
Table 5: Logit Model Utility Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>12.16616</td>
<td>0.4857369</td>
<td>0.4999682</td>
</tr>
<tr>
<td>Price</td>
<td>-1.52854</td>
<td>-0.1807926</td>
<td>-0.1778105</td>
</tr>
<tr>
<td>Peak</td>
<td>-0.1035653</td>
<td>-0.0624026</td>
<td>-0.062207</td>
</tr>
<tr>
<td>Day of Week</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Month</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>-9.415116</td>
<td>-2.299249</td>
<td>0</td>
</tr>
<tr>
<td>Observations</td>
<td>10,524</td>
<td>10,524</td>
<td>10,524</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.0531</td>
<td>0.0041</td>
<td>0.0039</td>
</tr>
</tbody>
</table>

**Instruments**

| Temperature     | Yes       | No        | No        |
| Precipitation   | Yes       | No        | No        |
| Previous Day    | Yes       | No        | No        |
| Inverse Reliability | No       | Yes       | No        |

Note: Line fixed effects are controlled for in the panel selection of the regression.

Table 6: Instrument Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t</th>
<th>F-Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precipitation</td>
<td>-0.0052141</td>
<td>-1.92</td>
<td>3.69</td>
</tr>
<tr>
<td>Temp Average</td>
<td>-0.0000369</td>
<td>-0.79</td>
<td>0.63</td>
</tr>
<tr>
<td>Previous Day</td>
<td>0.000013</td>
<td>7.09</td>
<td>50.25</td>
</tr>
<tr>
<td>Inverse Reliability</td>
<td>0.9510001</td>
<td>283.74</td>
<td>80507.85</td>
</tr>
</tbody>
</table>

Table 7: Consumer Surplus Calculations for Different Potential Reliabilities
Table 2 shows the consumer surplus calculations for four variations: two variations for regressions 1 and 2, and two variations for different counterfactual estimates. The consumer surplus calculation is described earlier in Empirical Strategy. The figures shown in the table are the yearly difference in consumer surplus between the status quo and a counterfactual reality. This consumer surplus gain is not just for current riders, but also for non-riders who theoretically switch over to the T from enhanced utility.

I focus on a counterfactual reliability of 95 percent for a few reasons. The T’s current reliability is at 88.47 percent, so an increase to 95 percent would represent a significant 6.6 percentage point increase. Additionally, this does not seem completely unreasonable given the MBTA’s documented level of underinvestment and the growing infrastructure backlog. The Blue Line has a reliability of 94.7 percent, for example. It is the newest line, so it has the smallest infrastructure backlog and makes the 95 percent target more realistic. Comparatively, the Red Line still uses train cars that were supposed to be retired over two decades ago, and has other outdated equipment in other parts of the system. If the T were able to work through its backlog and start modernizing its equipment, that would yield increased reliability as well.

Further, in Table 2, all of the international systems listed have a reliability of over 95 percent, with most of them close to 99 percent. It is unfair to make a direct comparison to international systems given the US’s historical reliance on cars and a large lack of funding given to public transit compared to other countries. Nonetheless, the international systems demonstrate that near-perfect reliability is not impossible, especially given that most of those systems carry more passengers than the T.

The subway systems of Asia are much newer than the T and are considered the best in the world. Thus, a comparison to the T cannot be made. However, the European systems trace their origins back to the late 19th or early 20th century, the same period as the establishment of the T. Given that these systems have reliability rates above 95 percent and that the T’s Blue Line itself is very close to that figure, 95 percent does represent a reasonable figure. Even still, I include a 98 percent counterfactual reliability to serve as a thought experiment, but it is a threshold that is unrealistic for the T given its current circumstances.

Using regression 1, I find that lost consumer surplus due to substandard reliability costs Boston metro residents over $160 million annually. If counterfactual reliability were upped to 98 percent, that figure rises to over $330 million. Using regression 2, I find a $54 million loss in welfare at a 95 percent counterfactual, and an $80 million loss for a 98 percent reliability rate. Using the 95 percent reliability level, from 2016 to 2019, the welfare loss to residents is between $215 million to $640 million.

**Conclusion**

This paper uses a logit model to estimate the welfare loss of residents of the Boston metropolitan area due to the unreliability of Boston’s subway, the T. By finding the difference in
consumer surplus between the status quo and a counterfactual reality of improved reliability, I estimate the annual welfare losses to be in the range of $54 million to $163 million.

This estimate is a lower bound for a few reasons. The consumer choice logit model predicts short-term welfare changes as reliability shifts day to day. In the long run, consumer welfare losses to poor reliability are likely higher. If a rider is dissatisfied with reliability during a given week, they are unlikely to go out and buy a car the next. But if reliability issues persist over months, they have more time to switch to other transportation alternatives. If the T is someone’s first choice transportation method, then transitioning to another method, such as buying a car or bike, reduces their welfare.

This estimate also does not consider the effects on third parties. It does not evaluate what the benefits of reduced road congestion would be. The commuter rail is the primary public transportation option for people that live in suburbs further from the city; they drive cars at higher rates than people that live within the immediate urban area of Boston. But, the commuter rail feeds into two stations in central Boston, where many commuters transfer to the T to get to their final destination. Thus, the reliability of the T still has effects on commuter rail riders. Lastly, there are accessibility, social equity, and environmental benefits from improved reliability that are not within the scope of this paper.

These consumer surplus estimates should not be used alone to advocate for upgrading the T because cost-benefit analyses are beneficial for understanding a broad sense of the effects of a specific project. However, my analysis should be considered in the cost side of the cost-benefit analyses read by policymakers. By having a substandard subway system in 2019, the Boston metro area lost tens of millions of dollars, if not hundreds of millions. Unless policymakers choose to let the system run without upgrades and essentially dissolve, large infrastructure upgrades will eventually happen. Every year until those infrastructure upgrades begin to improve service, the public will absorb the costs of unreliability. The pandemic has reduced ridership and has even made cutting subway service an option for meeting budget shortfalls. The losses of 2019 will not be the same as 2020 because of the pandemic. Nonetheless, the underlying principle of this paper will have relevance when the pandemic ends and ridership begins to return to more normal levels.

This paper may even be more relevant at the end of the pandemic when the economy begins to recover. Infrastructure spending may again be thrust into political discussions as a way of delivering stimulus to the economy. Ultimately, however, it will be up to policymakers to work through political obstacles that have held up large-scale infrastructure spending in recent years. If they do not, then the costs of the status quo will persist.

Notes

1. New York Times 2019
2. Encyclopedia Britannica 2017
3. WBUR 2020
4. MBTA 2018
5. Burguillo et al. 2017
6. Brynjolfsson et al. 2019
7. Britto et al. 2011
9. Casale and Odayappan 2017
10. Berry 1994
References


ABSTRACT: As the COVID-19 pandemic tore through the globe, policymakers grappled with two key questions. First, to what extent could new tools to collect and analyze data on a massive scale help limit the virus’s spread and, second, how would the collection of that data impact the privacy rights of individuals? This paper examines both questions and reveals how nation-specific traditions, values, and leaders shaped the delicate balance between the right to privacy and the protection of the population from COVID-19. An exploration of the surveillance techniques developed in response to the SARS and HIV pandemics reveals the growing consensus around the importance of accurate data collection and analysis. Next, this paper examines the COVID-19 response in 6 areas (China, South Korea, Singapore, Israel, the United States, and the European Union) to demonstrate the diverse array of responses to the pandemic. Different attitudes toward privacy and government control in each country led to dramatically different outcomes. Finally, this paper examines the role of regime type, leadership, experience with pandemics, and privacy norms in a comparison between China and the United Kingdom. This paper concludes by arguing that the balance between privacy and health can be successfully maintained by ensuring government transparency, reasonable scope and duration of implemented measures, and optimized use of technology to reduce excess data collection.

Section I: Introduction
As COVID-19 spread throughout the world, causing shutdowns and disruptions to modern society on an unprecedented scale, the threat of pandemics became painfully clear. The failure of governments and international organizations to prevent and mitigate the dangers of a global pandemic such as COVID-19 has left many desperate for the creation of new policies, norms, and infrastructure. The scientific community, alongside policy experts, demands the utilization of data that are mass collected in the 21st century to respond to pandemics. While this may be effective, if not vital, in the fight against COVID-19, one would be remiss to ignore the privacy implications of tracking the disease and its human carriers.

This paper will examine the privacy implications and efficacy of a data-driven tracking approach, with its scope limited to the first six months (March through August 2020) of the pandemic. Focusing on the early months of the pandemic provides insight into governments’ immediate responses, and allows investigation into policymakers’ first instincts when they are faced with crises. This paper also contains two sections of cross-country comparison; the first
details the strategy, efficacy, and privacy implications of pandemic response from a diverse subset of nations, while the second explores how regime type and leadership impacted nations’ pandemic response in China and the United Kingdom.

Section II: A Fundamental Review of Relevant International Pandemic Response Policy

Recent history lends an important perspective on the pandemic response. With our technological capabilities increasing at breakneck speed, pandemics such as Severe Acute Respiratory Syndrome (SARS) and Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) provide the most applicable insight into technologically-assisted responses to pandemics, as governments’ utilized digitally-assisted tracking systems and developed surveillance databases. SARS is relevant to study because it, like COVID-19, is caused by a coronavirus. Reflecting on the response to HIV/AIDS is also of interest because, as will be further discussed below, it had the most significant privacy implications of any recent pandemic or epidemic.

SARS is often referred to as the first pandemic of the 21st century. The disease is thought to have first emerged in the Chinese province of Guangdong and quickly spread throughout many countries, killing hundreds. Knowledge of the disease spread internationally when the World Health Organization (WHO) sent out a worldwide alert on March 12, 2003, describing a “severe respiratory illness of undetermined cause that was rapidly spreading among hospital staff in Hong Kong.”1 Within months, many nations implemented new policies and responses to combat the spread.

One common approach included setting up measures to track persons who were suspected to be infected. For example, the United States implemented a tracking system in an attempt to contain the spread. Soon after the WHO announcement on March 12th, 2002, the United States developed a case form to track and collect demographic data about the spread. Healthcare providers were requested (though not required) to report all suspected cases of SARS to the CDC and data on possible carriers was collected and added to a national “line list.” It is unclear whether patient permission was expressly requested before personal information was added to the list. This method of tracing was technologically limited in the sense that the collection of information was paper-based, though the CDC did keep epidemiologic data in an electronic database.2 To evaluate the effectiveness of such a response, it is helpful to analyze the surveillance system sensitivity, which is the measurement of the proportion SARS found through the surveillance system implemented in the United States. Since there were eight confirmed SARS cases, and all had been identified as “probable cases,” the sensitivity was an impressive 100%.3

Canada took a similar approach to combating SARS. The nation created a SARS hotline which was tasked with identifying potential SARS cases and contacts of infected individuals. People voluntarily called the line to report symptoms and exposure to SARS, and to ask questions about the disease. Additionally, a case reporting telephone system was developed to help hospitals report cases with ease. Furthermore, a Case Management team was established to investigate reports of potential SARS cases and determine if they met the criterion to be classified as a suspect case. Through these methods, Canada conducted 2,000 case investigations, identified 23,300 possible contacts, and placed 13,374 individuals in quarantine.4 This method was relatively effective, since the outbreak was able to be contained within populations such as hospital staff, patients and their visitors, and household members of known cases.5
Other countries opted to go beyond reporting and tracing to screening individuals in public places and at points of travel in ways that had little cause for privacy concerns. For example, in Singapore, many public buildings, offices, and residential spaces required a temperature check upon entry. At Singapore’s Changi Airport, travelers were met with infrared scanners that screened body temperature; Hong Kong, China, the Philippines, Thailand, and Taiwan also followed suit in screening passengers’ temperatures. The screenings do not appear to have been recorded, added to any database, or shared among any nations. Accordingly, such airport screenings did not result in any accusations of privacy invasion. The screenings appear to be moderately effective. Before the implementation of screening policies, transmission of the disease occurred on five flights that infected individuals onboard. After its implementation, which was recommended by WHO in March 2003, no additional flight transmissions were identified.

The myriad of international SARS policies raised many questions about the legality and rights implications of health surveillance. Tracking an individual’s contacts, movements, and health data in the name of public health posed threats to privacy. Individuals’ health data is widely considered sensitive information, and is treated with an expectation of confidentiality. Furthermore, in the haste to respond swiftly to the threat of SARS, legal professionals and courts had little say in the health policies and mitigation efforts of their respective nations. A legal review undertaken by Leslie Jacobs of York University examined legal consciousness during SARS in Hong Kong, Shanghai, and Toronto. Jacobs found that legal actors such as judges and lawyers were uninvolved in the public health efforts to reduce the spread of SARS. The exclusion of legal actors was problematic because the very parties that are tasked with the protection of and advocacy for rights were cut off from forming responses that had rights implications.

The response policies’ disconnect with legal considerations disregarded the priorities and concerns of many citizens. A survey conducted by Shanghai Academy of the Social Sciences as part of the Asia Pacific Dispute Resolution Project shows that individuals in Singapore and Toronto did not approve of their governments disregarding rights during times of health crisis. Of the approximately 200 Toronto residents who were surveyed, only 19% of respondents gave the highest importance to the government having the right to do whatever it judged necessary to prevent the spread of the disease. This shows that individuals are not willing or comfortable with sacrificing their privacy and freedom of movement in the name of public health.

Furthermore, a survey taken by 634 residents of Singapore reflects concerns about their government’s response to the pandemic in terms of privacy violations. Almost two-thirds of respondents protested against the broadcast of names to the public of those who were under quarantine orders, and 33.1% of the total respondents were against the hypothetical installation of web cameras and tag surveillance of those under home quarantine orders. In the case of public health responses aimed at preventing the spread of SARS, there is clear evidence of privacy concerns.

Similar concerns about the right to privacy concerns emerged during the HIV/AIDS epidemic. Many of the first recognized cases of AIDS emerged in 1981 in the United States, though the virus soon spread globally. Transmitted through sexual contact, blood contamination, needles, and from mothers to infants, tracking carriers of the disease quickly was a common policy. However, challenged by privacy concerns and the stigma surrounding HIV/AIDS infections, nations faced a struggle between protecting the confidentiality of infected individuals while also effectively preventing the spread of the disease. Some nations prioritized prevention. 
over confidentiality, using name-based tracking of infected individuals. Other countries were more conscientious of privacy concerns, and developed alternative tracking measures that protected infected individuals’ identities to varying degrees. It is imperative to recognize that homophobia and a lack of information about HIV/AIDS shaped both policy design and outcome.

One of the nations that is well known for robust HIV/AIDS surveillance is Cuba. Favoring prevention over confidentiality, Cuba developed strong testing and tracking measures. For example, by February 1988, Cuba had the capacity to test 25% of its sexually-active population; this was accomplished through mandatory testing of blood donors, pregnant women, those with other sexually transmitted infections, all hospital admissions, and sexual contacts of infected individuals. Tracing and notifying the sexual contacts of individuals who have tested positive was a controversial aspect of Cuba’s HIV/AIDS policy. Many concerns about protecting infected individual’s identities to protect them from social stigmatization arose. Although Cuba has faced criticism for its response, as it violated the privacy of infected persons and endangered their safety, the country has touted the effectiveness of its HIV/AIDS policy. As of 2008, Cuba claimed the highest level of AIDS treatment and the lowest rate of HIV infection out of the entire Caribbean region.

Other countries worked to find alternative, less invasive, methods of tracking the disease and its carriers. Two such countries were Canada and (within certain states) the United States. Canada implemented a compulsory case reporting system in which medical providers entered information on their patient’s birth dates, gender, and risk behaviors into a database that was maintained by the Massachusetts General Hospital Utility Multi-Programming System (MUMPS). This was done in an effort to provide some measure of protection for infected patients’ identities, while also enabling public health officials to identify trends such as higher HIV rates among injection drug users and native British Columbians.

Both Maryland and Texas took initiative and separately attempted to develop their own state surveillance systems that utilized non-name unique identifiers (UI) in the early 1990s. The UI codes were comprised of the last four digits of the patient's Social Security number, six-digit date of birth, one-digit code for race/ethnicity, and one-digit code for sex. These codes were then entered into a surveillance database, which the CDC planned to later evaluate. Although there was cooperation between state and federal authorities, the UI systems in Maryland and Texas were developed as a result of the states’ own prerogatives. Unfortunately, these systems faced problems such as attaining the data elements to construct a UI (e.g. failing to collect Social Security Numbers) and the issue of duplicate tests interfering with the accuracy of collected data. The UI system also made it difficult to follow-up with those who had tested positive; only 60% of reports could later be matched to client records. As a result, Maryland and Texas deemed the system to be “unworkable” and abandoned it in favor of name-based reporting.

In light of the failed attempts made by Maryland and Texas to adopt a UI system, many states overlooked confidentiality concerns and adopted name-based tracking systems. In fact, 31 states were conducting name-based HIV surveillance as of January 1998. This was bolstered by a 1999 policy by the Center for Disease Control (CDC) that required states to adopt a system of HIV case reporting that encouraged (though did not require) the use of names. The shift towards name-reporting reflects many Americans’ beliefs that previous AIDS responses had been inadequate and unaggressive. Most AIDS-service organizations continued to support UI and oppose name reporting, though the CDC found that “such an approach would simply impede the adoption of an effective system of surveillance.” The divergence of opinions on UI by AIDS-service organizations and the CDC highlights underlying biases that inform government policy.
Service organizations worked first-hand with infected individuals, and thus were more sympathetic towards the privacy concerns of persons living with HIV/AIDS.

Internationally, a common method of global surveillance included the use of unlinked anonymous testing (UAT). UAT involves screening blood specimens that were taken for purposes besides HIV testing and stripping them of personal identifiers without informed consent of the patient. This was done in an attempt to gather data for public health officials to analyze that would not be tainted by selection or participation bias. This response policy faced backlash from ethicists, policymakers, and academics for a multitude of reasons; the failure to obtain consent from the patients raised ethical questions and also prevented medical practitioners from notifying those who had tested positive. The tides turned most dramatically against UAT when the United States developed guidance for AIDS surveillance as a part of the President's Emergency Plan for AIDS Relief (PEPFAR). This plan dictated that the default position was non-UAT-based surveillance and that “a waiver should be submitted to conduct UAT surveillance.” As a result of these shortcomings and public opposition, most countries have since abandoned this method.

Privacy considerations are of particular import when it comes to examining HIV/AIDS response policies. In 1987 as many as 90% of AIDS cases in North America were in people who are homosexual, bisexual, hemophiliac, and/or those exposed through intravenous drug abuse or contaminated blood products. This is significant because a large proportion of infected individuals come from groups that are marginalized, and as a result stigma around HIV/AIDS itself has developed. The need for confidentiality in the handling of identifying and tracking those infected individuals is therefore of the utmost importance.

Problematically, there are often breaches of confidentiality when it comes to handling sensitive health information. There have been many instances of disclosure of such information, leading to a sense of distrust and fear from those who are affected by HIV/AIDS. For example, in 1991 a doctor at Pacific Oaks Medical Group (a clinic specializing in AIDS treatment) disclosed the information of infected patients to a fellow doctor looking to solicit supporters for homosexual candidate who was running for office. This is merely one example of an unquantifiable number of unwarranted disclosures that led affected populations to believe disclosures were common.

Disclosures are damaging to HIV/AIDS public health responses because “in the context of the intense concerns of gay men about government intentions and the severe consequences of disclosure of HIV status, the guarantee of confidentiality was a prerequisite to encouraging affected populations to access the health care system.” Inadequate privacy protections can deter high-risk populations from seeking essential care and can hinder effective tracking that can mitigate the spread of HIV/AIDS. As a result, confidentiality should be prioritized when designing and implementing any public health strategies.

If the difficult experience responding to SARS and HIV/AIDS has taught us anything, it is that there is a delicate balance between designing effective (and often intrusive) public health strategies and preserving the rights of those who are affected by pandemics. These issues existed before and throughout the development of the technology that exists today; as a result the effectiveness and intrusiveness of health surveillance has exponentially increased. Although nations such as Cuba have claimed great success in preventing the spread of a disease such as AIDS, they have not done so without threatening the ability to maintain necessary confidentiality. On the other hand, states such as Maryland and Texas learned the hard way that protecting the privacy of infected individuals can impede the effectiveness of a public health...
strategy. Strategies developed in response to COVID-19 should keep in mind the lessons of past pandemics and work to find a balance between privacy and efficacy.

Section III: Background on COVID-19 and its Privacy Implications

COVID-19, commonly referred to as coronavirus, originated in Wuhan, China in 2019. Though the origins of the disease are disputed, it is thought that it likely emerged in the Hunan seafood market in Wuhan and quickly spread to more than 50 individuals. The disease is spread from human to the human and is highly transmissible and deadly. As a result, it has spread to nearly every country and has claimed millions of lives. Nations across the globe have rushed to find different solutions to combat this growing crisis. Yet in their haste to develop effective public health strategies, concerns about rights and privacy have been oft left unconsidered.

Rights protection plays an important role in determining the efficacy of any response. In order for any contact tracing to be effective, public trust and enthusiasm is a must. This is especially important for any voluntary solutions; if concerns over privacy exist, there is little to no chance of adoption being widespread. A study conducted in April 2020 by the University of Washington surveyed the opinions and preferences of 100 individuals. The study found that while 72% of those surveyed were open to downloading a contact tracing app that “protected their data perfectly,” that number decreased as they were asked about an app with less protections. For example, when respondents were asked about an app that knew their location but claimed not to share it, only 19% of respondents said they would be extremely likely to download it. In addition, only 49% of respondents felt that it was somewhat likely that they would download an app that shared their location with their government. Public trust and privacy protections are important to consider in designing any public health measure. If public trust is undermined, people will be less likely to follow other public health advice (such as wearing masks or social distancing) that could help prevent the spread of the virus.

Concerns about the diminution of privacy rights are not limited to the short-term implications of COVID-19 public health strategies. In fact, there are many long-term concerns about the permanence of emergency measures. If countries spend lots of money and effort developing strong surveillance measures, they may be unwilling to dismantle them after the crisis has passed. This was seen in the United States after the terror attacks on 9/11. In response to these attacks, the United States government developed the Patriot Act and other anti-terror measures that continued to be used for purposes outside of their initial design. In the aforementioned survey conducted by researchers at the University of Washington, respondents were unsupportive of governments collecting and utilizing location data. Specifically, respondents felt that they did not trust their governments to use collected data solely for COVID-19 mitigation efforts and 72% of respondents reported that they felt it was “extremely unlikely” that collected data would be deleted after the threat of COVID-19 subsided. In addition, more than half of respondents were concerned that sharing their data would “bring harm to themselves or their community.” When designing measures to combat the spread of COVID-19, caution surrounding their permanence and scope must be employed.

Another emerging issue involves the growing power and influence of the tech industry during the pandemic. As these companies work to promote a better public image during the crisis, they also hope to increase their influence on politics. During COVID-19, tech companies have increased their lobbying efforts in order to precipitate favorable policies and weak regulation of their behavior. This has led to concerns that privacy protections will be dismantled to support the interests of technology companies as a result of their ‘good behavior’ during the
pandemic.\textsuperscript{35} As nations turn to technology to enable and promote societal recovery from COVID-19, resources and power will be handed over to a limited number of private players in the technology sector.\textsuperscript{36} These companies face countless accusations of privacy infringement as they amass large amounts of personal data from their consumers. As a result, their empowerment during the COVID-19 crisis raises concerns about their ability to dismantle privacy protections in the future.

The global privacy issues that have arisen during COVID-19 will not fade even if a cure or vaccine is produced. As experts predict increasing incidents of serious pandemics, the rights issues that they pose become greater threats.\textsuperscript{37} The increase in pandemic frequency, coupled with rapid technological advancements, makes it imperative to consider and design adequate policy measures that balance public safety and individual privacy.

Section V: A Review of International COVID Policies, Their Effectiveness, And Their Privacy Implications

This section explores the diverse COVID-19 response policies implemented in China, South Korea, Singapore, Israel, the United States, and the European Union. For each country, the policies are identified, and their efficacy and privacy implications are explored. These countries were selected because they each utilized unique approaches that provide insight into the diverse array of possible public health measures.

China:

Following the devastating 2003 SARS outbreak in China, the government drafted the “Regulations on Preparedness for the Response to Emergent Public Health Hazards” in order to create an emergency response plan for future epidemics.\textsuperscript{38} As a result, at the outset of the outbreak, China enacted measures such as closing transportation in Wuhan, canceling New Year celebrations and other large gatherings, enacting self-quarantine orders, and closing public spaces like schools and restaurants.\textsuperscript{39}

Additionally, the implementation of contact tracing apps has become widespread, often in the form of digital applications such as software on smartphones.\textsuperscript{40} China integrated one such software, dubbed “Health Code,” into the popular wallet app Alipay that has over 900 million users.\textsuperscript{41} Reports indicate that usage of the app is, in essence, mandatory for all kinds of movement within China; to use services such as public transportation or to enter a supermarket, one must display their status on the app.\textsuperscript{42} Those who use the app are given color-coded QR codes depending on their COVID-19 risk. Those who have not been exposed to an infected individual should display a green QR code, while those who may have come in contact with the virus or a carrier display yellow or red codes. China has also developed Artificial Intelligence applications such as chatbots or automated callers that review individuals’ travel histories in an attempt to identify and combat disease hotspots.\textsuperscript{43} Many companies require employees to submit a “travel verification report” upon return to work. Telecom providers formulate these reports which contain all the locations that an individual has traveled to for the past 14 days, as well as provide a recommended quarantine period based on the travel history.

Although skepticism surrounds the COVID-19 infection and death statistics that China has reported, independent reports suggest that many of their measures are effective. An investigation published in \textit{Science} explores China’s transmission control measures during the early stages of the outbreak in China suggests that the nation’s policies at least somewhat delayed the growth of the epidemic and reduced the number of cases.\textsuperscript{44} The investigation quantifies that without the national response and Wuhan travel ban, there would have been
744,000 confirmed cases in China by the February 19th, 2020; in the presence of these measures, there were only 29,839 confirmed cases reported as of February 2020, which is 96% fewer than there would have been without interventions.45

China’s technology-assisted system of contact tracing has also had success in limiting the spread. A retrospective cohort study conducted by Qifang Bi of John Hopkins University, Yongsheng Wu of the Shenzhen Department of Public Health Information, Shujiang Mei of the Shenzhen Department of Communicable Diseases Control and Prevention, and Chenfei Ye of Harbin Institute of Technology at Shenzhen sampled 391 Chinese COVID-19 patients and their 1,286 close contacts to investigate the efficacy of contact tracing control measures.46 The study found that, of the 379 confirmed cases who had a known mode of detection, 77% were detected via “symptom-based surveillance.”47 The study also found that contact tracing enabled quicker detection of COVID-19 cases. While COVID-19 takes on average 4.9 days to detect with symptom-based surveillance, contact tracing reduced the time to 2.7 days.48 Overall, the authors of the study said that they believe their research provides evidence that contact tracing is an effective measure.

Despite the claimed successes of China’s COVID-19 response, many concerns about the government’s policies have emerged. For example, Alipay’s Health Code does not have a transparent system for deciding who is allowed in public spaces and who is designated to quarantine.49 Individuals have expressed frustrations about the lack of provided rationale for their rating; the app, which updates your contagion risk status in real-time, can change your status from green to red and any point and stay that way for an unspecified amount of time.50 In addition, breaches of confidentiality have occurred in regard to the identity of infected persons. For example, a Chinese telecom company, Chinese Mobile, recently sent texts to media outlets with infected individuals’ detailed travel history.51 This is clearly a violation of the individuals’ privacy rights, and merits apprehension.

Furthermore, the Alipay’s Health Code appears to share information with the police, which has raised concerns about it being a “new form of automated social control.”52 A New York Times analysis of the software code found that “as soon as a user grants the software access to personal data, a piece of the program labeled ‘reportInfoAndLocationToPolice’ sends the person’s location, city name and an identifying code number to a server.”53 Additionally the analysis discovered that every time a person scans their code (an occurrence that happens numerous times as one travels about their city), their location is uploaded to the system’s servers, enabling authorities to in essence track individuals locations. The analysis concludes that “The sharing of personal data with the authorities further erodes the thin line separating China’s tech titans from the Communist Party government.”54 An additional fear is that these measures are not temporary or limited to the time of COVID-19, but rather that they are a calculated and permanent addition to China’s already advanced state surveillance system.

South Korea:

During the worst of the COVID-19 outbreak, South Korea relied heavily on a combination of high-tech solutions and widespread testing. Working in tandem with private sector partners, the South Korean government built numerous high-capacity screening clinics. At the height of the outbreak, there were around 600 testing sites that completed up to 20,000 tests per day.55 This non-technological aspect of their response has garnered praise from the international community for its facilitation of timely testing.
South Korea also utilized GPS tracking and IT solutions to trace the spread of the disease. One GPS location-based tracking app, Corona 100m, is downloaded on a volunteer basis. The app has been reported to be wildly popular and was downloaded one million times within just 17 days of its launch in February 2020. The app uses data provided by telecommunication companies and notifies users who are near (within 100 meters) to any location that an infected person has frequented. There are a variety of websites that are publicly available that track and show infection hotspots. One such website is Coronamap, which illustrates the travel histories of individuals who have been confirmed as COVID-19 carriers.

Additionally, South Korea has developed a mandatory app that uses GPS to track infected patients in quarantine and set off an alarm if they venture outside. Anyone who may have come into contact with these confirmed carriers is also put under mandatory quarantine; to enforce this the South Korean government has developed a “geo-fencing” system that relies on calls, home visits, and the voluntary use of a government quarantine app. Mobile testing teams from agencies such as the Ministry of Health and Welfare (MOHW) and Korea Centers for Disease Control and Prevention (KCDC) use location data, immigration records, CCTV footage, credit and debit card transactions, transit pass records, personal identification information, and prescription/medical records to track infected and potentially infected individuals. This collection is extensive, and has the potential to deeply infringe upon citizens’ privacy rights.

South Korea promptly mitigated the spread of COVID-19 without taking severe measures such as closing many businesses or issuing widespread stay-at-home orders. In April, mere months after original concerns about the epidemic in South Korea emerged, there had only been 10,708 cases with 240 deaths. Since mid-March, there have only been “a handful of new cases per day.” An article written by Sangchul Park of the University of Chicago, Gina Jeehyun Choi of the Korea Law Center, and Haksoo Ko of Seoul National University claims that South Koreans’ use of advanced information technology systems deserves credit for flattening the curve of new COVID-19 cases and deaths.

Nevertheless, South Korea’s use of technology has major privacy implications for its citizens. Though the availability of data may be useful for tracing efforts, it also enables problematic trends such as identifying COVID-19 carriers publicly. The collected and shared data includes information such as infection paths, hospitals of infected persons, the health of individuals who have had contact with infected persons, sex, nationality, and age (though names are not revealed). This level of detailed data makes it easy to identify and publicize the identity of infected individuals. This identification has led to profiling, unveiling of embarrassing personal details, public disdain, and loss of business for infected owners of restaurants, shops, and other businesses. Despite these negative impacts, the South Korean citizens do not necessarily disapprove of their government’s actions. In an unpublished survey of South Koreans conducted by Youngkee Ju of Hollym University and Myoungsoon You of Seoul National University between the months of February and April 2020, the majority of respondents (68.2%) said that they would be willing to sacrifice their individual privacy rights in order to continue information-sharing practices with their government. This willingness likely stems from cultural factors; South Koreans are accustomed to sharing personal data with their government because it was a common practice in their nation even before the spread of COVID-19.

Importantly, in the aforementioned article written by Park, Choi, and Ko, the authors claim that the level of public data sharing in South Korea is unnecessary for effective COVID-19 tracking and containment efforts. While acknowledging the importance of tracing the location and movement of infected individuals for epidemiologic purposes, these authors contend that...
rather than revealing personal information to the public, it could be used to inform officials where to focus public health measures. The authors also suggest that the sharing of less precise location data could help to preserve the privacy of infected individuals.

Singapore:

Singapore has also relied heavily on technology during the spread of COVID-19, and has found moderate success. One critical aspect of their approach is the government-developed TraceTogether app. This app utilizes Bluetooth technology in order to track the proximity of users’ phones to each other. If any individual is later diagnosed with COVID-19, the owners of phones that have been in proximity to the infected user’s phone can be notified to quarantine. While the Singaporean government claims that health officials “ask” to view and release the data from their phones, failing to assist the Ministry of Health to track movement is actually a crime in Singapore. The data taken from the phones are only stored for 21 days. Singapore has also enacted surveillance measures for infected patients. These measures consist of daily phone check-ins, randomized SMS messages including links to check location, and the requirement that infected patients send images of their surroundings to verify that they are in quarantine. Those who do not comply can face detainment, isolation, and be forced to be tracked with RFID technology.

The TraceTogether app is unique in that it is voluntarily downloaded by users. This aspect of the app originally hindered its efficacy; as of April, only 16% of the population downloaded TraceTogether. Nevertheless, as the severity of the virus and knowledge of its spread increases, so did citizens’ willingness to utilize the app. Currently, the app has 2.3 million users, for context, the country had a population of 5.7 million as of June 2019. The app’s efficacy aside, Singapore has generally done well during COVID-19 despite its close proximity to and involvement with China. The COVID-19 infection spread in Singapore is one of the slowest in the world, and the COVID-19 death rate is also very low. Overall, Singapore has successfully managed the virus.

Many privacy concerns have emerged regarding the TraceTogether app. While it succeeds in protecting the identity of users from each other, it does not afford the same protections from the government. Any diagnosed individual must give the list of locations they have visited (compiled in the TraceTogether app) to the Ministry of Health. The Ministry in turn collects the cell phone numbers that the infected individuals’ phone has come into contact with. While there is no indication that this information is being abused, its collection is nonetheless concerning because the identity of infected individuals and those they have physically come into contact with is not protected from the government in any way. Furthermore, the government’s creation of a database that contains location information connected to individuals numbers presents the possibility of the government tracking the locations of its individuals. Though there is no evidence that the Singapore government is doing so, its capability to do so remains alarming.

European Union:

Although countries in the EU by no means acted uniformly in their responses to COVID-19, there are certainly observable trends. For example, a report published by the Hague Center for Strategic Studies identifies two prominent trends of technologically-assisted responses that were implemented throughout the European Union. The first trend consisted of enacting anonymized phone location tracking. Utilizing connections to cellular businesses, the
governments of Belgium, Austria, Estonia, France, Germany, Latvia, Greece, Portugal, Italy, and Spain utilized data provided from companies such as Orange S.A., Tele2, A1, Deutsche Telekom, Vodafone, and LMT to track individuals’ movements and the spread of the virus. In total, at least 13 countries in the EU have confirmed access to their citizens’ anonymized location data. The uses of this data varies, and includes aiding with insight on movement trends and checking compliance with lockdown orders. The second observed trend was the widespread government implementation of contact tracing apps. Germany, the Netherlands, Austria, Spain, Ireland, and Croatia all have contact tracing apps and projects in use or development.

Notably, countries within the European Union are cooperating to find solutions. For example, Germany is spearheading collaborations with the Pan-European Privacy-Preserving Proximity Tracing (PEPP-PT) project. A concerned group of scientists and technologists from more than eight European nations have taken on this project in the hopes of proposing solutions that are both effective and conscious of privacy issues. The EU has supported such efforts and recommends the implementation of a coordinated approach towards mobile tracing applications. This aligns with the EU’s stance that requires member states to share the information that they collect regarding contact-tracing with other nations in the EU via the electronic Early Warning and Response System. This information includes personal and health data such as health status and travel history of infected individuals.

Countries utilizing anonymized phone location data have seen moderate successes. These successes include insight into population movement and trends during the pandemic. For example, the telecom company Orange (in partnership with the French Government), had sufficient information to find that 17% of Parisians moved away from the French capital. Additionally, countries have used collected information to shape their policy decisions. In Italy, the government used telecom reports to inform their decision to bolster lockdown measures after finding that their citizens were still moving about. Furthermore in Latvia, the telecom company LMT has asserted that the data they share could be used to inform law enforcement of large, illegal gatherings. It is clear that countries in the EU are not merely collecting anonymized phone location data, but instead analyzing it to make informed decisions for effective public health measures.

Contract tracing in the EU has faced some setbacks that limit efficacy. First, there is the universal problem with the contact tracing: it relies on high-risk groups such as children and senior citizens to have sufficient technology and knowledge of its use. In addition, academics have warned that apps can lead to a false sense of security which can cause individuals to forgo compliance with other measures. This problem is compounded by issues with the actual reliability and accuracy of contact tracing apps. While widespread contact tracing certainly has its merits, it seems unwise to solely rely on it to curb the spread of the virus.

Concern for privacy rights in the EU is certainly present in the time of COVID-19. While a survey of individuals in the EU residents found that 83% of respondents approved of fining those who violate quarantine, banning of public gatherings, and closing borders, 23% of respondents disapproved of using mobile phone data for tracking purposes. In fact, the survey found that the issue that was most polarizing among respondents was governments’ use of cellphone data for COVID-19 tracking. The EU has some of the world’s strongest digital privacy protections, which were bolstered in 2018 by the implementation of the General Data Protection Regulation. As a result, governments and telecom companies have taken steps to put privacy-related fears to rest. For example, telecom providers work to anonymize and aggregate data before it is shared. Specifically, when aggregating data the companies use groups of at least
30 users to prevent identification of individuals from their data.⁹⁶ This anonymization is legally necessary for countries hoping to share their data with other nations in the EU without the consent of users.⁹⁷ Sharing data across the EU has faced vocal criticism; Hannah van Kolfschooten and Annie de Ruijter of Amsterdam Law School argue that in mandating data sharing, the “European Commission has implicitly decided that the protection of public health outweighs the importance of the right to privacy in case of serious cross border threats to health.”⁹⁸ The plethora of concerns and criticisms by citizens and academics in the EU give evidence that further privacy considerations for COVID-19 measures are necessary.

**United States:**

The United States’ approach to combating COVID-19 consists of a very decentralized system of response. The federal government took actions such as suspending travel from China in February and from 26 European countries in March. Furthermore, institutions such as the CDC and many US embassies made statements discouraging non-essential travel. While travel certainly decreased within the United States, it remains unclear whether this was a result of these warnings or other factors. The individual states within the nation largely made their own unique policies and responses during the pandemic. As of August 2020, there is no centralized or widespread method of contact tracing in the United States. The development of contact tracing measures has largely been left up to states rather than the federal government. This has led to a lag in tracing, leaving the US far behind its international peers. While states such as California, Washington, and Massachusetts have invested significant resources in hopes of developing large-scale contact tracing measures, many other states have implemented little in the way of contact tracing.⁹⁹

The United States’ infection and mortality rates reflect the efficacy of the nations’ response to COVID-19. In August 2020, at least 5,140,300 Americans were infected and at least 164,000 had died.¹⁰⁰ In addition, the United States leads the world in both cases and deaths. Some experts, such as Adriane Casalotti, chief of government and public affairs at the National Association of County and City Health, blame the concerning rates of infection and spread on insufficient contact tracing measures.¹⁰¹ It is clear that the United States’ public health measures during COVID-19 are largely insufficient and ineffective.

The failure to enact comprehensive public health measures coincides with the prioritization and protection of privacy in the United States. Culturally, this can be contextualized with the general emphasis on individual freedoms and rights within the nation. Victor Cha of the Center for Strategic and International Studies explains that, “For countries in the West still suffering from the virus, political leaders struggle over the tradeoff between privacy rights and the use of smartphone app-tracking technology for contact tracing.”¹⁰² Interestingly, while the American people tend to be adamantly opposed to government infringement upon their privacy, they allow big tech to access and collect enormous amounts of their data. This raises fundamental questions about how privacy is conceptualized by the American people.

Furthermore, recent issues with data privacy in America have led policymakers to be cautious about technological strategies. Although the White House did meet with the leaders of big tech during COVID-19, conversations surrounding mobile tracing and location technologies were reportedly avoided.¹⁰³ Another factor that may influence American’s aversion to more intrusive public health measures is the nation’s experience (or lack thereof) with SARS, MERS, and Ebola. The United States faces a mere 27 cases of SARS, 2 cases of MERS, and 11 cases of
Ebola. While nations that were more affected by these diseases put in place precautionary public health measures, the United States remained unprepared for a pandemic such as COVID-19.104

**Israel:**

The Israeli government has taken one of the most extreme approaches to curtailting the spread of COVID-19. At first, the government worked to stop flights into the country, create social distancing guidelines, close schools, and impose curfews.105 To add to these measures, the Israeli Health Ministry has created a voluntary app, entitled “HaMagen,” which uses cellular location data over 14 days to check for contact with infected individuals.106 Additionally, the Israeli government has relied on Shin Bet, Israel’s internal security service, to help with tracing and identifying COVID-19 carriers using cell phone location data.107 In order to do this, the Health Ministry is required to share the names, ID numbers, and cell phone numbers of infected individuals. Shin Bet then uses a classified database dubbed “the Tool” to retrieve cell phone data from cellular providers which enables them to identify anyone who has been within two feet of an infected individual for more than 15 minutes.108 Once the information is collected, Shin Bet notifies the Health Ministry, which in turn attempts to reach potentially infected contacts and instruct them to quarantine. There have also been reports that Shin Bet has used the collected information to inform police on defiance of quarantine orders.109

The data collected by Shin Bet is incredibly detailed, and includes information on location, voice calls and text messages (their occurrence but not their content), and website visitation.110 The intrusive nature of these measures has caused concern about the privacy and rights of Israeli citizens. As a result, the measures have faced challenges in the courts. In late April, the Supreme Court of Israel ruled that “explicit statutory authority” rather than executive authorization was necessary to continue the program in the case Ben Meir v. Prime Minister.111 Despite this challenge, the program will seemingly prevail as recent legislation has passed that authorizes Shin Bet to extend the practice of its measures for at least another six months.112

Although Israel initially had success in preventing the spread of COVID-19, rising infection and mortality rates in July and August have set back the nation’s progress. In the early days of the pandemic, Israel’s public health measures caused the rates of infection to plummet to 10-20 new cases per day.113 To the world, it appeared that Israel was making all the right moves.114 Unfortunately, in late June and early July, the number of cases began to rise again. Citizens are blaming the increase in infections on the government’s reopening of schools and permitting large gatherings such as weddings.115 On July 15th, Israel reported 42,813 cases and 375 deaths.116 Furthermore, on July 21st, Israel faced over 1,500 new coronavirus cases daily.117 This infection rate is more than twice as high as it was during March and April.118 The initial successes of Israel have given way to a concerning second wave as restrictions were hastily and prematurely loosened.

Taking one of the most intrusive approaches to disease control, Israel has significantly infringed on its citizens’ privacy rights. In utilizing its domestic security service for implementation of COVID-19 measures, Israel has made clear that this problem, as well as most others the nation faces, is one of national security.119 As such, Israel has created an opportunity for its national surveillance to extend to areas besides public health.120 The Israeli government justifies these measures with a host of explanations: contact-tracing is ineffective as individuals’ memories are fallible, the large Orthodox community does not own cell phones, and the impossibility of otherwise tracing the contact of individuals in crowded places.121 Despite these rationales, it still appears that unnecessarily invasive and stringent measures are being put into place.
place. For example, there is no form of appeal for those who may be incorrectly classified as a potential contact. Furthermore, Israel’s aforementioned use of “the Tool” operates with no judicial oversight. Its use is generally classified and the contents, storage length, and protection of collected data are largely unknown. Israel’s approach to COVID-19 - shrouded in secrecy and heavily reliant on intrusive surveillance - certainly poses threats to the long-term privacy rights of its citizens.

Taiwan:

Taiwan, known for its technological prowess, has predictably relied heavily on data collection and technology for its COVID-19 mitigations efforts. One of the main control measures being employed is the border quarantine: those who return to Taiwan must either quarantine in a hotel or return to their own residences and undergo intense digital surveillance for a 14-day period. The surveillance measures include digital fencing, which consists of using an electronic fence or perimeter, enabled by cell tower triangulation from telecom providers, that sets a boundary that a quarantined individual must stay within. In order to ensure that individuals do not simply leave their phones at home and travel as they wish, officials video call multiple times a day to check in and failure to answer one of these check ins results in heavy fines. Furthermore if a quarantined individual’s cellular device runs out of battery or is turned off, the police will report to their house. During the 14-day mandatory quarantine, each individual received a $33 per day stipend. If at any time an individual breaks the quarantine, they are forced to pay back one thousand times the stipend received.

Taiwan also employed a variety of datasets to supplement its surveillance efforts. For example, the National Health Insurance database has been merged with the immigrations and customs dataset in order to ensure individuals had undergone health screenings and disclosed their travel history. In addition, Taiwan has implemented forms of contact tracing. The first 100 confirmed COVID-19 cases were all extensively tracked. An outbreak investigation team, led by the Taiwan CDC, thoroughly investigates cases and possible contacts. It is important to note that since Taiwan has seen relatively few cases (numbering less than 1,000), contact tracing may be a less important measure than in other nations where the spread is far more prevalent.

Taiwan’s response has generally been very effective and has helped curtail both the spread of COVID-19 and the resulting deaths in the nation. As of August 17, 2020, the nation had only 500 cases and a mere seven deaths. Taiwan’s successes come even in the face of significant challenges such as proximity to mainland China and frequent travel between the two neighbors. The technological aspects of Taiwan’s response have been credited for these strikingly low statistics. Technology plays an important role in shaping Taiwan’s culture and identity. As a result, citizens have enthusiastically engaged in both the use and production of virus-mitigation technologies. Jaron Lanier and E. Glen Weyl of Microsoft explain that “bottom-up information sharing, public-private partnerships, ‘hacktivism’ (activism through the building of quick-and-dirty but effective proofs of concept for online public services), and participatory collective action have been central to the country’s success in coordinating a consensual and transparent set of responses to the coronavirus.”

Though some of Taiwan’s measures such as digital fencing may seem invasive, the general widespread trust in the government and transparency of officials’ actions have helped to ease fears of privacy intrusion. Examples of government officials’ transparency include daily briefings from political leaders and scientific experts as well as the broadcasting of all of Digital Minister Tang’s meetings. This communication has helped maintain citizens’ confidence.
despite the curtailment of privacy rights.\textsuperscript{136} The Taiwan Public Opinion Foundation conducted a survey of 1079 Taiwanese citizens in order to assess their opinions of their government’s actions. 80\% of those surveyed approved of the Minister of Health and Welfare’s handling of COVID-19 and 70\% approved of the president and the premier’s work.\textsuperscript{137} The government's empowerment of previously mentioned “hacktivists” likely has to do with these high approval ratings. By allowing citizens to shape and produce the very measures they are subject to, the Taiwanese government has created a form of “participatory self-surveillance.”\textsuperscript{138} One example of this is Taiwanese citizens who, in collaboration with their government, created an online tool that aggregated data on the availability and location of face masks. As Andreas Kluth of Bloomberg explains, “by involving people in the solutions, rather than just dictating policies to them, the process is transparent and inspires trust, even civic pride.”\textsuperscript{139} It seems as though Taiwan has managed to create measures that approach the nearly elusive balance between privacy and public health.

Country Comparison:

The diverse array of public health measures implemented by different nations enable meaningful and informative comparisons. The failures of both the intensely invasive approaches of countries like Israel and China, and the astonishingly weak effort by the U.S. reveal the dangers of living on either extreme of the privacy spectrum. The experiences of the countries in between these extremes provide guidance for future policymakers.

China’s extreme secrecy enabled the virus to spread far beyond its borders; although this failure may not have had domestic health implications, it should certainly be considered when measuring the success of the nations’ measures. Israel’s measures have also proven to be somewhat unsuccessful; the nation’s burgeoning second wave undermines the government’s claims that stringent surveillance is the best response to COVID-19.

On the other side of the spectrum, the United States’ approach has been an arguably worse catastrophe. The United States, ever concerned with the protection of individual liberties, has struggled to create effective measures that can coexist with the utmost protection of rights. The unwillingness of Americans to sacrifice even limited rights for the larger societal good has led to unthinkable rates of infection and mortality. In addition, the Trump administration’s sluggish and insufficient attempts to address the disease played a large role in the nation’s ultimate failure. Lacking an efficient federal strategy, the United States has failed to use any widespread data collection or contact tracing measures to curtail the spread. Though Americans are averse to rights infringements, the absence of any meaningful attempts to track the spread with contact tracing measures makes it hard to discern whether the problem lies with American cultural norms or with the Trump administration itself. What is clear, however, is that both overreaction and inaction are problematic as governments grapple with COVID-19.

Although South Korea has low infection and mortality rates, the nation has by no means found a tenable balance between privacy and public health. Its health successes are tainted by the unnecessary disclosure of personal information that has enabled reidentification and ostracization. While South Korea has developed solid tracing and prevention infrastructure, it needs to do far better in the protection of privacy to be considered a true success story.

Nations in the EU are struggling to find a unified approach, which is reflected in the infection and mortality rates. As of August, a second wave of COVID-19 threatens most of Europe.\textsuperscript{140} This has led to the shuttering of borders and increase in testing throughout the EU. Still, the EU deserves recognition for mitigating the first wave after a devastating March and
April in Italy. Furthermore, there are valiant attempts at considering privacy throughout the EU. The coalition entitled Pan-European Privacy Preserving Proximity Tracing has worked to provide suggestions for “privacy-friendly contact tracing apps.” While the EU has not been ultimately successful in battling COVID-19, it is at least attempting a balance between privacy and public health.

Singapore and Taiwan have found the most success in the balancing of priorities. Singapore’s TraceTogether app, while initially facing challenges with voluntary adoption, has now grown into a global success story. TraceTogether is effective in tracking the movement of the virus while also protecting privacy with limited 21-day data storage and protection of users' identities from fellow users. The Hague Centre for Strategic Studies labeled TraceTogether’s use of Bluetooth technology as the “least intrusive” option among mobile tracing applications. Singapore’s approach appears to be moderately effective as well, with the country boasting very low mortality rates. In addition, Taiwan’s measures have had wild success rates. With only 7 reported deaths in a population of nearly 24 million citizens, it is clear that the Taiwanese government is utilizing the country’s technology savvy to its benefit. Furthermore, Taiwan’s transparency and inclusion of its citizens in developing public health measures has helped mitigate fears of privacy infringement. Taiwan’s triumph proves that governments can indeed use technology to fight COVID-19 without foregoing the protection of privacy rights.

Section V: Factors that Influence Response Type - A Case Study of China and the United Kingdom

While it is important to consider how nations differ in their responses, it is also vital to consider why they have chosen distinct approaches. Factors such as regime type, leadership, national pandemic history, and privacy norms play an important role in shaping a nation’s response. The importance of these factors emerges clearly when comparing the starkly divergent responses of two very different countries: China and the United Kingdom. China’s regime type, which has become increasingly totalitarian, empowers it to forcefully enact strict shutdowns and contact tracing measures while simultaneously stymying the necessary flow of information via state censorship. China’s leader, Xi Jinping has played an important role in charting China’s response, as he has utilized his strongman rule to create and enforce effective public health measures. The United Kingdom, on the other hand, has struggled to control the virus for almost its entire duration, and is currently in the midst of a devastating second wave. This can partly be attributed to the United Kingdom’s regime type, parliamentary democracy, which constrains the country from enacting intense surveillance methods as in China, and requires the government to respond to the demands of the general population. Furthermore, Boris Johnson’s populist leadership and disconnect with science has led the nation to greatly suffer.

China’s powerful centralized government allows it to implement highly invasive policies that would not be permitted in democracies because of their intrusiveness. For example, the aforementioned Chinese app “Health Code” tracks the movements of users and controls their quarantine status to an extreme degree by dictating if a person can access public spaces. While Democratic countries such as Taiwan and South Korea have also implemented COVID-19 tracing efforts, those governments' responses have been far more transparent and much less intrusive than China’s efforts. As discussed in the previous section, in Taiwan location-based tracking is generally confined to those who have recently entered the country. In South Korea, the download of the most popular contact tracing app, Corona 100m, is done on an entirely volunteer basis. In contrast to these responses, China’s app is, in essence, mandatory for all
individuals wishing to function in society, and its implementation has been overwhelmingly non-transparent. The government’s opacity is evident in its decision to secretly embed the Health Code application feature that sends the collected location information directly to the police.\footnote{Tracking the Tracing}{145} While democratic countries can certainly implement tracing efforts, the scope of their invasiveness is generally limited by citizen pushback and partisan politicking. Totalitarian regimes, on the other hand, may infringe upon citizens’ privacy with greater ease as they blur the line between state and society.

Although the increasingly totalitarian regime in China allows for invasive but effective public health measures to be implemented, their style of centralized government has also faced difficulties in mitigating the harms of the pandemic. The government aims to have a high degree of control over the flow of information, frequently engaging in state censorship. This can backfire, however, as critical intelligence can be muffled in the effort to constrain communications. The failure of information to flow both up to policymakers in the Politburo and down to citizens on the street could be a possible explanation for China’s delayed response. If the Chinese government was unaware of the extent of the virus due to censorship, it may have been unable to adequately and promptly address the situation and quickly develop public health measures. While one cannot know for certain the extent and timeline of the government’s knowledge of COVID-19, another issue that almost certainly impacted the Chinese response was the population’s lack of information about the virus early on. When doctor Li Wenliang spoke out about the virus, he was interrogated and silenced by the government, and eventually perished from COVID-19.\footnote{Tracking the Tracing}{146} Because the government attempted to control COVID-19 information during the early days of the pandemic, citizens were unable to take necessary precautionary measures or adequately protect themselves from the disease. China’s inability to quickly address the pandemic due to issues with information flow had serious implications; A simulation done by researchers at the University of Southampton concluded that had China implemented its control measures a mere week earlier, it could have prevented 67% of its cases.\footnote{Tracking the Tracing}{147}

China’s leadership is another critical factor in the country’s response. President Xi Jinping has centralized power under himself and become a personalistic strongman. President Xi’s willingness to employ “draconian” and “repressive” means, such as swiftly quarantining the 11 million people of Wuhan, are a result of his strongman rule.\footnote{Tracking the Tracing}{148} Insulated from particularist pressures and firmly in control of internal security, the military, the police, the National Security Commission, and the People’s Liberation Army (PLA), President Xi has been able to implement policies that a less secure political figure likely could not. President Xi has been active in purging political rivals and those who speak out against him.\footnote{Tracking the Tracing}{149} This massive consolidation of power allowed President Xi to not only have the capability to impose China’s extensive response, but also the political capital to do so. President Xi’s COVID-19 approach would be risky for a politician that is highly prone to the whims of the people or vulnerable to criticisms from rivals. The shutdowns so necessary for combating the spread of COVID-19 can certainly cause harm to the economy, which in the short term can be very unpopular with the masses. Yet President Xi was able to pursue such a policy without fear of immediate backlash. While President Xi’s strongman rule may not permanently overpower dissent, in the short term it has enabled him to enact necessary but potentially unpopular COVID-19 measures. The success of those measures has now bolstered the popularity of President Xi and further cemented his strongman rule.

Another factor to consider when analyzing China’s response is the country’s history with confronting pandemics. The Chinese experience with SARS and the resulting “Regulations on
Preparedness for the Response to Emergent Public Health Hazards” afforded China some preparation for the pandemic. While other countries struggled to consult experts and rapidly develop a plan during the first wave of COVID-19, China was able to utilize its existing policy infrastructure to address the crisis. Furthermore, Chinese citizens, scarred by the toll of SARS, were willing to make sacrifices in the name of public health. Citizens in nations that were less affected by SARS, such as the United Kingdom, have demonstrated less willingness to make sacrifices such as quarantining and wearing masks for the broader good of public health. China’s SARS experience has thus worked to increase compliance of the citizenry with public health measures and overall improved COVID-19 outcomes in China.

The United Kingdom has been far less successful in managing the spread of COVID-19, and has the second-highest coronavirus death toll of the world's wealthiest nations. The United Kingdom, like China, had a slow start to its pandemic response. Early on, Prime Minister Boris Johnson chose to promote the idea of “herd immunity,” which entailed letting the virus naturally spread so that a large portion of the population eventually becomes immune. However, in late March, the Prime Minister reversed course and implemented a three-month lockdown. Despite this lockdown effort in the Spring, the United Kingdom has suffered from a second spike. Although the United Kingdom has been credited with increasing the country’s testing capacity, the failure of the government to use the collected data or adequately implement robust contact tracing has limited the testing’s efficacy. Though the United Kingdom has made steps to combat the spread of the virus, they have thus far been much less effective than the Chinese measures.

The parliamentary democracy within the United Kingdom certainly impacted how the government chose to respond. In a democracy where political officials are held accountable to the people, the government is inherently responsive to the demands of its citizens. As a result, citizens’ discontent about the prolonged lockdown and economic harms of COVID-19 public health measures may have stymied the government’s ability to create a more robust response that would require greater citizen sacrifice. The government in the United Kingdom faced severe political pressure to ease the COVID-19 restrictions because they were thought to suppress the economy and limit citizen’s freedoms. While politicians being held accountable to the citizenry is one of the marked strengths of democracy, in times of crisis where unpopular sacrifice is necessary, some democratic regimes may flounder.

The leader of the United Kingdom, Prime Minister Boris Johnson, played a large role in shaping the country's COVID-19 response. The Prime Minister has faced great criticism for his promotion of “herd immunity,” and was mocked after he became infected with COVID-19 himself. Many have blamed the Prime Minister’s failed response on his populist leadership style. Populist leaders across the globe, such as President Donald Trump in America and President Jair Bolsonaro in Brazil, preside over the countries that have been some of the worst affected by COVID-19. One reason that populist leaders may falter in the face of the pandemic is that populism, by nature, often leads to the disparagement of expert knowledge and the propagation of anti-elite and anti-scientific attitudes. The anti-establishment element of populism presents a threat during COVID-19, where reliance and collaboration with established health experts and organizations is imperative.

In Britain, the disconnect between the scientific community and the populist Prime Minister has become painfully clear. Sir Patrick Vallance, chosen by Prime Minister Boris Johnson to be his chief scientific adviser, has rejected the scientific community's known aversion to “herd immunity” and chose to promote it. Sir Patrick Vallance publicly announced that “herd immunity” would require 40 million Britons to catch the disease, but failed to mention that an
estimated 250,000 would perish. Furthermore, a group of senior British scientific advisers, who are members of the Scientific Advisory Group on Emergencies (SAGE), have found their advice blatantly ignored by Prime Minister Boris Johnson. Although SAGE recommended that the Prime Minister impose a myriad of restrictions, including banning contact within the home and closing all bars, restaurants, and indoor gyms in early September, the Prime Minister opted only to advise individuals to work from home if possible. The divide between the scientific community and populist Prime Minister Johnson may account for the country’s dismal COVID-19 response.

In addition, norms surrounding the protection of an individual’s rights may have led to bureaucratic delays as a product of privacy concerns. One reason that England’s contact tracing program, Test and Trace, has had limited success is because it is highly bureaucratic in its efforts to protect patient confidentiality. For example, if a known contact resides in the same house as an infected individual, their personal information cannot be collected by contact tracers who conduct home visits. Instead, the contacts must wait days until the tracers reach out to them. This slows the process of contact tracing and hampers the government’s efforts to alert potentially infected individuals. A study conducted by Reuter’s found that in England, the Test and Trace program has only been able to trace one non-household contact for every two confirmed cases of COVID-19. To put that in perspective, the Singaporean government can trace, on average, twenty contacts for every confirmed case of COVID-19.

In China, citizens have become accustomed to government surveillance and privacy intrusions. As a result, the government could successfully implement its Health Code tracing app, which instantly notifies an individual if one of their contacts has tested positive. Such an app would likely never be allowed in the United Kingdom, where the Information Commissioner’s Office is tasked with protecting data privacy for all individuals. The stark difference in China’s successful Health Code and the United Kingdom’s lackluster Test and Trace can be largely attributed to the privacy norms. While the Chinese government has little transparency in how the Health Code application functions, what data is being collected by the app, and who has access to the data, the United Kingdom is forced to enact heavily bureaucratic and inefficient systems in order to ensure that the identity of persons infected with COVID-19 are protected. The privacy norms that exist in different countries therefore greatly affect the nature and efficacy of response measures.

China, currently boasting staggering low rates of daily cases, has emerged as a winner of the COVID-19 pandemic. It’s response has been lauded for its efficacy, even as the nation suffered setbacks at the beginning of the crisis. While the officially reported numbers may seem suspect to some, as the Chinese government is known for its use of propaganda and information manipulation, China’s response has been generally thought of as a success. The United Kingdom, on the other hand, has struggled for almost the entire duration of the pandemic. The country has failed to get a strong grasp on the spread of the virus, despite the delayed yet lengthy shutdowns in the spring. The disparities in the countries’ responses can be attributed to innumerable factors, yet some emerge more clearly than others. First, regime type is of the utmost importance; while in China, the increasingly totalitarian regime has been able implement necessarily stringent public health measures, the democratic British government has struggled to enact efficacious but unpopular policies. Individual leaders have also influenced the path of the pandemic. President Xi has used his strongman rule to implement drastic yet effective measures, while populist Prime Minister Boris Johnson has distanced himself from science with devastating consequences. Other factors such as national pandemic history and privacy norms have impacted
countries’ response efforts as well. Juxtaposing the vastly different responses of China and the United Kingdom may allow other countries and leaders to see where their peers have succeeded and failed, and to shape their own responses accordingly.

**Section VI: Policy Suggestions**

The use of technology is unavoidable when devising the most effective approach to COVID-19. As a result, privacy rights will inevitably be affected by the new and extensive public health measures. In order to minimize the privacy implications of responses while also maintaining their efficacy, a Bluetooth-based contact tracing app is advisable. Such an app would function similarly to Singapore’s TraceTogether; individual’s cellular devices can emit signals or “tokens” which are then used to record proximity to other nearby devices and individuals. If any individual is later diagnosed as a confirmed COVID-19 case, their contacts can be traced and notified. This approach protects the privacy of individuals’ movements since it uses data on a person’s proximity to other users rather than the location of the user themselves. Put simply, such an app could detect the who but not the where of an individual’s contacts. This kind of tracking is actually preferable to GPS/location tracking in terms of its efficacy because it is generally more accurate and works in a multitude of otherwise difficult situations such as in indoor and underground settings or in crowded areas. It is also more effective than contact tracing that relies solely on the memory that users have of their locations and contacts.

Another necessary aspect of such an app would be the veiling of individuals’ identities. When users’ devices come into contact and exchange “tokens”, they should be immediately anonymized to protect all individual’s identities from each other. Later, if a user is a confirmed carrier of COVID-19, anyone who received one of their “tokens” can be notified to quarantine. They will not, however, be notified of the identity of the individual that is the confirmed case. An app that utilizes Bluetooth is well-equipped to anonymize identities and protect the privacy of users because “the only information involved is contact tokens, which can be cryptographically secured in a way that is less vulnerable to de-anonymization than location histories.”

Beyond the design of a contact tracing app, more general guidelines can help shape privacy preserving practices. Marcello Ienca and Effy Vayena of the Swiss Federal Institute of Technology recommend three insightful data-management practices that help guide an interest-balancing approach. First, the authors explain that the response should be proportional to the threat; a common cold would not merit the same data-collection efforts as COVID-19. Their second guideline relates to necessity. The least possible amount of data-collection should be utilized to achieve necessary efficacy. This guideline would likely address the approaches of both Israel and China, whose data collection has been far more extensive than what is likely absolutely necessary. The final guideline proposed by the authors addresses the need for scientific justification of proposed measures. This guideline could relate to South Korea’s public disclosure of the identities of infected individuals in South Korea. The Organisation for Economic Co-operation and Development (OECD) has also provided valuable suggestions. The OECD advises that the public remains knowledgeable of their government’s COVID-19 policies and that the utmost transparency is employed when implementing new approaches. In addition, the OECD suggests that the duration of invasive COVID-19 technology use and data gathering be limited to what is absolutely necessary to avoid any measures becoming unnecessarily permanent. These guidelines can and should extend far beyond the development of tracing apps to all public health measures developed during COVID-19.
Section VII: Conclusion

Past pandemics and the recent experience with COVID-19 have revealed the importance of rapid and effective responses in order to mitigate the spread of dangerous illnesses. As seen in the case of China, a speedy response can spare tens of thousands of lives. One needs only to look at America’s experience to see the unthinkable danger of a slow and ineffective approach to COVID-19. The virus is a stark reminder of the need to develop detailed, researched, and robust response plans in advance of, rather than in response to, future pandemics.

Nonetheless serious privacy implications can arise that can have pernicious effects on citizens. In the case of HIV/AIDS, privacy violations had grave consequences for infected individuals, and ultimately discouraged many from seeking vital care. Though COVID-19 may not carry the same stigma as HIV/AIDS, the protection of privacy is still fundamental, especially in countries that are implementing voluntary tracing and surveillance efforts. Unless people feel that their sensitive health and location data will be protected, they will be unlikely to participate in such voluntary programs, thus undermining the success of government efforts. The anonymization of data through Bluetooth-based tracing apps are a promising example of policy measures that ensure both privacy and efficacy.

Analyzing the disparate responses of countries with different governance systems, leadership styles, and attitudes toward privacy reveal possible causes of the varying successes and failures of nations faced with COVID-19. Centralized governments with strongman rulers are able to quickly enact stringent policy measures, though challenges are likely to arise due to the hindered flow of information. On the other hand, democratic governments may struggle to enact efficacious yet unpopular policies, but are more likely to respect the privacy of citizens. The cases of China and the United Kingdom provide important insight into what factors facilitate or impede the ability of nations to respond to pandemics in the future.

Though the balance between privacy and effective public health measures may be precarious, nations can and should strive to find equilibrium. History teaches that pandemics will never be a thing of the past; creating norms around the protection of privacy even in the midst of health crises is therefore imperative. By employing universal guidelines such as establishing transparency of government actions and ensuring reasonable scope and duration of implemented measures, nations and their citizens can limit the long-term disruptions that pandemics produce. In addition, optimizing the use of technology to both prevent the spread of a disease and protect the privacy of users enables rights protections to persist even in the modern world. Singapore’s TraceTogether app is a perfect example of how technology can spur both effective public health measures and privacy protections. Nonetheless, more should be done to ensure the proportionality, necessity, and scientific justification of all implemented policies. As technology inevitably develops, so too should the privacy protections that surround it.

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The Great Swedish Experiment

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ABSTRACT: As COVID-19 spread across Europe, many countries chose to implement swift and stringent lockdown measures on their populations in March 2020 by shutting down businesses and banning large public and private gatherings. Sweden, however, chose to manage the pandemic by relying on its citizens to make the best decisions for themselves and their families. This paper places Sweden’s response to the COVID-19 pandemic in a political and economic context. The paper also analyzes the country’s response and effectiveness in implementing voluntary and stepwise actions. Research finds that although measures taken to slow transmission while accounting for efforts to preserve the economy did not come close to achieving their medical goal, whether refraining from a shutdown was enough to save the economy in a significant way is less clear.

“Of all the words of mice and men, the saddest are, ‘It might have been.’”
― Kurt Vonnegut, from Cat’s Cradle, 1963

Introduction

On November 16th, 2020, after months of refusing to legally lockdown the country, Swedish Prime Minister Stefan Löfven announced that strict bans on public gatherings of more than 8 people would be implemented in response to the dramatic rise in coronavirus cases in the fall. Noting that these measures are the most invasive in modern Sweden, Löfven hoped to send a clear message to the public on the need for social distancing. “It is a clear and sharp signal to every person in our country as to what applies in the future. Don’t go to the gym, don’t go to the library, don’t have dinner out, don’t have parties — cancel!” Mr. Löfven told a press conference.¹

This new message served as a stark contrast to the attitude that the Swedish government and Public Health Agency (PHA) held earlier in the year, when cases were low and Sweden had seemingly successfully flattened the curve despite having avoided a shutdown of the country. On May 8th, Sweden’s state epidemiologist Anders Tegnell boasted in a webinar held by the International Center for Journalists (ICFJ), “The Swedish model is showing you can get very far by voluntary measures”.² The backdrop to this change in tone is the surge of positive coronavirus cases Sweden experienced starting mid-October (Exhibit 6).
While many countries in Europe chose to implement swift and stringent lockdown measures in March 2020 by shutting down businesses and banning large public and private gatherings, Sweden chose to manage the pandemic by relying on its citizens to make the best decisions for themselves and their families (Exhibit 7). Sweden kept most businesses, schools, and workplaces open, and throughout the spring and summer, life in Sweden continued more-or-less the same way as before. Eight months later, on November 5th, 2020, Sweden reported an alarming figure of 4,744 new coronavirus cases, the highest number the country had seen since the beginning of the pandemic, and it seems to be trending up.3

As approval ratings along with confidence in the government dropped, domestic scrutiny centered on the Swedish government’s response. Löfven and Tegnell were both forced to publicly deny reports in Swedish media of a rift between the government and the PHA.4 Internationally, countries around the world stay attuned to Sweden’s pandemic response, waiting to see whether its unique approach in balancing public health and the economy worked better strict lockdown measures.

Hej! Välkommen till Sverige!

Covering 528,447 km, Sweden is the fifth largest country in Europe and roughly the same size as California in the United States and with a relatively low population density. With a population of 10.23 million,5 it is the largest among the countries in Scandinavia and ranks 15th in Europe in terms of population.

The nation of Sweden is one of Europe’s oldest, beginning with its relationship with and contribution to the Vikings. The country has on occasion displayed an adversity to the European mainstream and is not a stranger to straying from the herd in a global context. Europe, on the contrary, is a continent unified both geographically and politically, has a strong big-government background. It favors left-wing social and economic policies. When a problem is at hand, the continent understands government to be the solution.

Sweden had instances of breaking from European traditions early and hard. This trend was born as were many European trends: in the context of the evolution of Christianity. Martin Luther, the father of Protestantism, was a German, but his influence quickly spread around Northern Europe. Quickly, a continent defined by Catholicism began to show cracks in its theological foundations. At the forefront was Sweden. “It seems difficult to overstated,” explains Professor Inge Jonsson of the University of Stockholm. “Luther’s influence in Swedish social history.” The Protestant faith preached and spread by Martin Luther was, at its core, a continent unified both geographically and politically, has a strong big-government background. It favors left-wing social and economic policies. When a problem is at hand, the continent understands government to be the solution.

Sweden’s parliamentary representative constitutional monarchy is led by a prime minister and functions at three levels: national, regional, and local. On the national level, the federal government is composed of the office of the prime minister as well as a multitude of semi-autonomous agencies. Sweden’s highest regional level of government is the county council, which...
The Great Swedish Experiment

is made up of twenty counties. The county council deals with issues such as health care and tributary affairs. Stockholm is by far Sweden’s most populous county with 2,377,081 inhabitants followed by Västa, Götaland, and Skåne. On the local level, Sweden is divided into 290 municipalities. Each municipality designates its own elected body, tasked with governing over a plethora of issues. These elected bodies are responsible for providing many services, including housing, schooling, elderly care and childcare.

The Riksdag operates as Sweden’s parliamentary legislative body and is composed of 349 members who are directly elected by citizens. Representatives in the Riksdag come from a handful of parties. The left-winged, Social Democratic Party, that of current Prime Minister Stefan Löfven, has dominated Swedish politics for over a century. The next largest party is the Moderate Party followed by the Swedish Democrats and the Centre Party. Government in Sweden is meant to only exercise nominal administrative duties and not to step on the people’s toes. Mass movement is protected by the constitution, and the national government is generally restricted from imposing sweeping mandates. Policy and administration in Sweden operate under a dualistic relationship, whereby those elected to lead place a great deal of responsibility on local government as well as civic duty and personal responsibility on the citizens.

In 2018, Löfven lost a confidence vote to hold a majority in the Riksdag with the Social Democrats. Despite being excluded from the center-right “Alliance” that was formed by the opposition parties such as the Moderate Party, the Center Party, the Liberals and the Christian Democrats, the Swedish Democrats, a populist, right wing, nationalist party increased its vote totals from 12.7% to 17.5%, becoming the third largest party in the Riksdag. The Christian Democrats’ support waned from 31% to 28.4%, the lowest since 1908. The “Alliance” was dissolved.

Healthcare Governance

Like much else in Sweden, healthcare’s roots come from the legacy of the welfare state and is highly decentralized (Exhibit 1). The Health and Medical Service Act requires that regional councils provide every resident with good quality health care while the central government is responsible for establishing guidelines and principles to inform a national medical agenda. In Sweden, the local municipalities are tasked with providing elderly care as well as care for those with physical disabilities or psychological disorders. The PHA is one of the broadest reaching agencies when it comes to medicine in Sweden.

Longstanding Societal and Cultural Values

Swedish citizens have a rich history of active participation in the framing of the country’s values and policy. Civilian action has been responsible for achieving many landmark reforms in Sweden’s history. One of the most prominent ways through which reforms are accomplished is through the active involvement of civilians in social movements. Civilian-led social movements have been responsible for gains in childcare and equal working conditions through the women’s movement, gaining education and public health care. Additionally, ordinary citizens fought for environmental protections, labor rights and social due to an ingrained cultural sense of investment in the community and trust in achieving change through politics. Sweden’s active citizenry operates as an amplifier for its democracy.

Part of the reason citizen involvement in political issues is so strong is because the central tenets of Swedish culture and society that emphasize personal responsibility and trust in one
another, which allows for individual flexibility. Because Swedes have a deep sense of what they ought to do as individuals for their own betterment in tandem with altruistic societal motivations, they trust each other to make the right decisions. Sweden consistently ranks the most extreme nation in the world in terms of self-expressionist and secular beliefs on the world value survey (Exhibit 14). Cultures that hold the individual as more of an independent actor, like Sweden does, are more likely to allow for individual flexibility and risk-taking. “National culture in... Sweden views the individual as an independent, self-contained, autonomous entity who comprises a unique configuration of internal attributes; thus, [Sweden] encourages individual flexibility and risk-taking, consistent with these loose cultural values.”

For most of the last century, Sweden has consistently taken in refugees, operating as a beacon of asylum for those hoping to escape persecution. Jews, Danes and Estonians were allowed in during the Second World War. Chilean nationals fleeing the bloody tyranny of Augusto Pinochet as well as those fleeing war and genocide in former Yugoslavia found a home with open arms. Swedes were happy to distinguish themselves from the trend of tightening borders in Europe during the 1990’s and the 2000’s with relatively bipartisan enthusiasm. This tendency to open up and extend a helping hand became thought of as a form of Swedish Exceptionalism, following a pattern of nationalist sentiments of moral superiority being tied to a policy adopted in Sweden.

Yet during the refugee crisis in 2015, fearing “system collapse” following a pouring in of migrants which resulted in a strained welfare system as well as increasing crime, with over 160,000 asylum applications. Löfven had lamented then, “It pains me that Sweden is no longer capable of receiving asylum seekers at the high level we do today. We simply cannot do any more,” reversing his position in just over half a year. This marked what some came to view as the death of Swedish Exceptionalism. The far-right nationalist Social Democrats captured the opportunity to posit themselves as the one party that had consistently called for restrictions to immigration and gained momentum, as the Swedish population became more unified on restricting immigration.

Once known for the “Middle Way” between liberalized and controlled markets, Sweden has recently engaged in somewhat extreme policy measures, opting to operate from the fringes. Sweden went from having one of the most developed welfare states on earth to liberalizing it and having one of the most market friendly basic education systems in the world after the 1990’s. The trend from one extreme to the next is apparent in the shift in attitude toward migrants from welcoming to very strict.

The word lagom, in Swedish, means “moderately,” and bears great cultural significance. Ikea’s slogan is “Live Lagom,” and the principle of not living too extravagantly is one that many Swedes take to heart. Lagom, tied in with the self-conception of the “Middle Way”, may seem at odds with what seems to be somewhat of a radical streak among the Swedish. However, the seemingly docile temperament of Swedes as it feeds into a consensus culture actually allows for the political pendulum to shift more dramatically when it does shift as Swedes unite on issues. As sociologist Daniel Lindvall puts it, “Our sense of ourselves as lagom makes it much easier to make dramatic change here, as opposed to societies that are more contentious. In other words, our extremism is made possible by our culture of consensus. Since we find ways to agree, it’s easier to move policies or whole sectors quickly, even abruptly.” Lindvall refers to it as the “paradox of consensus culture” where individual modesty results in a collective extremism.

As of 2016, single-person households were the most prominent of European households, making up 33% of all households. Sweden led the other European countries with the greatest
proportion, 52%, a decisive majority of households in Sweden being occupied by a single person, totaling 1.8 million. In Sweden, a significant proportion of the working population has the ability to work from home. As of 2019, 62% of enterprises included people who would work at home and roughly a fifth of all Swedes regularly tele-worked.

The Swedish Economy

Although Sweden is a relatively small country in terms of its population, it is one of the wealthiest countries in the world. Exports account for about one-third of Sweden’s GDP. Most Swedish enterprises and businesses are privately owned and market-oriented, although there is a large public sector as well. Government spending is also a large fraction of the country’s GDP, amounting to 49.7% over the past three years. Budget surpluses have an average of 1.1% of GDP, and public debt is equal to 39% of GDP.

Trade

The Swedish economy is open and heavily dependent on free international trade with about one-third of its GDP being made up of exports. Svante Öberg, Deputy Governor of the Swedish Central Bank, the Riksbank, remarked in January 2009 in the midst of the financial crisis: “Sweden is a small and open economy with extensive foreign trade and a financial market that is well integrated with the international markets. Sweden's dependence on the outside world has increased over time.” Sweden trades heavily with its Scandinavian and European neighbors, with Germany, the United Kingdom, Norway, Finland, and Denmark account for about two-fifths of Sweden’s export market.

Swedish manufacturing is export-oriented and produces the bulk of the country’s export income. Over the years, the emphasis has shifted from export of raw materials and semi-manufactured products such as pulp, steel, sawn wood to finished goods, the majority of which is dominated by engineering products such as cars, telecommunications equipment, hydroelectric power plant equipment, and, increasingly, high technology and chemical and biotechnology. Imports are more diversified than exports, with the top imports being cars, crude and refined petroleum, and vehicle parts. Germany is the main supplier of Sweden’s imports. In 2018, good exported totaled to $162 billion USD, and goods imported totaled to $160 billion USD.

Service Sector and the Labor Market

More than one-third of actively employed Swedes work in the service sector. In 2017, Sweden exported $66.3 billion worth of services, the top services being computer and information services, business, professional, and technical services, as well as travel services. Services imported totaled $60.2 billion, mainly comprising travel, business, professional, and technical services. Tourism also plays an important role in the Swedish economy, contributing to 2.6% of Sweden’s GDP in 2017.

Like its neighbor Denmark, Sweden is also highly unionized, with about four-fifths of all workers belonging to labor and trade unions. Unions take charge of negotiating agreements that cover issues such as fair wages, pensions, insurances, and annual leave days. Unemployment averaged 6.02% from 1980 until 2020, and was addressed by government investments in education and entrepreneurship. Notably, a short-time working scheme was introduced by the government in 2014 to increase flexibility in the labor market, where employers can reduce their employees’ working hours and receive financial support from the central government to compensate for a
significant part of the costs for retaining the employee. This measure can only be activated in a deep recession. In 2019, the labor force participation rate was 73% and the employment rate was 68%, both of which were both high by international standards. The gender employment gap of 4% is also small. The unemployment rate, 6.8%, was close to the European average.

**Taxation**

Taxes make up the majority of state revenues, which are used to maintain a high level of social services that have virtually eliminated structural poverty in the country. Personal income tax – ranging from 30 to 60 percent – are some of the highest in the world, but taxes for business, in comparison, are quite moderate. The top personal income tax rate is 57 percent, in comparison to the top corporate tax rate of 21.4 percent. The overall tax burden is equal to 44 percent of total domestic income. Since the late 1990s, there has been a shift away from tax on personal income and towards taxing goods and services and social security contributions. Social insurance policies have been changed to encourage greater participation in the workforce, and pension reforms paid into the pension system and the amount disbursed with the overall health of the economy.

**Economic Performance, 2008 - 2019**

As the oldest central bank in the world, Sweden’s Riksbank has an objective of maintaining price stability, defined as the maintenance of a low, stable rate of inflation. More precisely, the Riksbank’s target is to hold inflation in terms of the Consumer Price Index with Fixed Prices (CPIF) around 2 percent a year. The Riksbank played a pivotal role in navigating the Sweden financial markets through the 2008 Financial Crisis as well as the 2010 European Debt Crisis. In 2008, the Riksbank deployed a number of initiatives to strengthen the fragile financial market and stabilize the financial system. These initiatives included general liquidity support measures through increasing loans and loan access as well as extending emergency liquidity assistance to individual banks, liquidity support to individual institutions to prevent institutions large and small from failing, and loan facilities to neighboring countries through swap agreements with central banks of several Baltic countries and Iceland. As a result, Sweden’s GDP contracted by 5% in 2009 but bounced back with growth averaging 5% in the following two years. The European Debt Crisis that started in 2010 with Greece’s sovereign debt crisis played out in a similar manner in Sweden. The domestic economy weakened in 2012 and 2013 as a result of weak economic outlook and development abroad, and inflation levels were lower-than-expected in 2013 due to the international economic slowdown and lower import prices. This trend continued in 2014, leading to the Riksbank adopting an expansionary monetary policy to stabilize the home economy. As the economy both domestic and abroad began to recover in 2015 and 2016, the Riksbank continued to carefully monitor the situation, and Sweden has since been recuperating slowly.

According to annual Swedish Economy Reports by Sweden’s National Institute of Economic Research (NIER), coming out of the European Debt Crisis, 2015 saw strong growth in the Swedish economy through expansionary government fiscal policies that helped decrease unemployment rates, a trend that continued into 2016 and 2017, which saw an improvement in both business and consumer confidence as well as output and employment. However, underlying problems for the Swedish economy in the form of continuously weak economic conditions in Europe persisted throughout Sweden’s economic recovery, and the growth the economy had experienced peaked in the first half of 2018, after which had set into a slowdown phase. By the end of the fiscal year in 2019, the Swedish economy was well settled into its slowdown phase, which was worsened by the uncertainty surrounding Brexit and US-China trade
disputes. Swedish export of goods saw slow overall growth, and household savings increased. Unemployment was forecasted to slightly rise, and inflation was expected to drop well below 2 per cent over the next few years. Household and business sector confidence, as well as export manufacturing orders, showed decline (Exhibit 4). The NIER noted in its December 2019 report, “Our forecast is based on the assumption that there is an orderly Brexit and that the global trade conflict does not escalate further. Should these assumptions prove false, there is a considerable risk of Swedish output falling well below potential. However, public finances are strong, and there is scope to soften any downturn with expansionary fiscal policy.”

COVID-19: The Pandemic the World Was Unprepared For

In late December 2019, news from China alerted the world that a new respiratory virus was quickly spreading throughout the city of Wuhan in the province of Hubei. Much was unknown about the origins, symptoms, spread, and containment of the virus at the time. This was the origin of the novel coronavirus, also known as COVID-19. The first case of the coronavirus outside of China was confirmed on January 13th, 2020, and has since spread all over the world, presenting the world with one of the most challenging and dire public health crises in modern history. The World Health Organization (WHO) officially declared the coronavirus a pandemic on March 11th, 2020, and countries around the globe quickly implemented nation-wide lockdown measures of varying levels of control and strictness shortly thereafter. The first case of COVID-19 in Sweden was confirmed by the PHA on January 31st, 2020 in a traveler from China. A few weeks thereafter, during the second week of March, community spread in Sweden was confirmed.

In response to the now-classified pandemic, Sweden adopted the same goals as most other countries, working to ‘flatten the curve’ by slowing the rate and volume of transmission so that the healthcare system could cope with the disease. However, unlike most other countries, much of Sweden’s implementation focused on voluntary and stepwise action, rather than legislation and compulsory measures. The government had relied on the voluntary social distancing and self-restraint of its citizens, who received daily briefings and instructions concerning self-protection techniques from the PHA and press conferences held by state epidemiologists and government representatives (Exhibit 3). Recommendations the government published in March included avoiding social contact if one was experiencing symptoms of respiratory infection, working from home as much as possible, and isolating as much as possible for people over 70 years of age. Higher secondary schools for children over 16 years of age were also encouraged to switch to distance learning to curb the spread of the disease.

Outside of these recommendations, the government put few hard restrictions in place. One restriction was the government’s decision to stop non-essential travel to Sweden from countries outside of the EEA and Switzerland. Additionally, visits to elderly care institutions were banned on April 1st. Public events with a headcount of more than 50 people were disallowed, and public spaces such as cafes, restaurants, and bars needed to minimize crowding and provide for physically distancing in each venue, which also applied to shops and public transportation.

Notably, however, Sweden’s top authorities refrained from recommending the usage of face masks, and have questioned the effectiveness of mask-wearing as opposed to physical distancing. The country also never closed daycare or schools for children under the age of 16.

The Swedish government has characterized their overall strategy as a ‘common sense’, trust-based approach rather than strict measures, such as lockdowns, which they say are unsustainable over an extended period of time. Swedish authorities expressed that in their view, managing the COVID-19 pandemic would not be a sprint but a marathon—a long-term...
undertaking. Thus, policies need to be designed on a level that is acceptable to the people over a long period of time. The government had time and time again emphasized the trust it places in its citizens to ‘make the right decision’, underlining the loose cultural values that Swedish citizens embody of individuals’ self-responsibility as well as the individual as an independent, self-contained, and autonomous entity. On March 22th, Löfven gave an address to the nation where he emphasized the importance of self-restraint, declaring “Now we all have a great personal responsibility. There are a few critical times in life when you must make sacrifices, not just for your own sake, but also for those around you, for your fellow human beings, and for our country. That time is now. That day has come. And the duty is everyone’s.” (Exhibit 7)

Federal Fiscal Response

Despite the seemingly lax lockdown measures, the Swedish government devoted a substantial amount of capital and resources to help provide an adequate social safety net for businesses and people during this time. Total government support in 2020 amounted to 805 billion Swedish krona (SEK), equivalent to 16% of GDP and around 96 billion USD, which included SEK 240 billion in budget measures, SEK 335 billion in liquidity measures, and SEK 230 billion in guarantees. In March, the government pushed out a number of measures aimed at cushioning the economic impact businesses were soon expected to brace for.

Some notable measures include allowing companies to defer three months’ worth of payment of employer social security contributions, preliminary tax on salaries, and value added tax (VAT) with interest. Small and medium-sized enterprises (SMEs) were further allowed to defer VAT reported annually, including payments of last year's VAT that were due shortly. The government issued credit guarantees of up to SEK 5 billion for loans to airlines, SEK 3 billion for loans to SMEs, and guarantee 70% of new bank loans to companies experiencing financial difficulty due to COVID-19. Moreover, the government allowed for reduction of employers' social security contributions to the old age pension, providing relief of up to SEK 5,300 per employee per month. Temporary discount for rental costs in vulnerable sectors like consumer goods, hotels, and restaurants was additionally covered by the government for up to 50% of the fixed rent reduction. Later on, in April, the government announced a SEK 39 billion package to support businesses based on loss of turnover.

Monetary Response

To help stabilize the economy, Swedish financial institutions also acted to provide relief measures. On March 13th, the Swedish Financial Supervisory Authority (FSA) lowered its countercyclical capital buffer from 2.5% to 0% and postponed all new investigations and on sight supervisory activities in order to free up resources at the banks. The FSA further mandated the loss of income associated with COVID-19 as qualification for the bank and borrower to reach an agreement to reduce or suspend loan amortization payments for a limited period of time. It also clarified that it will temporarily allow banks to fall below the liquidity coverage ratio requirements to provide relief for liquidity constraints and stressed that it expected credit institutions to stop this year’s dividend payments and instead, use the earnings to further strengthen their capital.

The Riksbank decided to lend up to SEK 500 billion to companies via the banks in order to avoid robust companies being knocked out and reduced the lending rate for overnight loans to banks from 0.75% to 0.20% above the repo rate while keeping the repo rate at 0%. Banks were allowed to borrow an unlimited amount at 3-month’s maturity on a weekly basis against collateral at an interest rate of 20 basis points above the repo rate, and flexibility was increased on collateral
requirements for banks when they borrowed money from the Riksbank. The Riksbank also decided to increase purchases of securities by up to SEK 300 billion in 2020. On March 19th, the Riksbank and the US Federal Reserve agreed on a swap facility of 60 billion USD, which was extended on August 5th until March 31st, 2021.⁵⁸

**Employment, Healthcare, and Social Initiatives**

To save Swedish jobs and ensure that employers and workers did not bear the full impact of COVID-19 on the economy, the government announced that employers’ wage costs can be halved, and the government would cover a larger share of the costs. This model is similar to short-time work, but the subsidy level is significantly increased in that the employee receives more than 90 per cent of their wage. Other measures included allowing workers unable to perform work due to sickness and quarantine to be entitled to state disease carrier allowance from the Swedish Social Insurance Agency (SIA), which allowed workers to receive approximately 80% of their regular salary for up to 14 days. This also applied to self-employed workers. However, workers were required to submit a medical certificate proving they were infected or were suspected or at risk of carrying the disease in order to receive the allowance. A temporary parental allowance was also introduced to compensate parents for 90% of their salary in case they need to stay home and look after their children due to school closures.⁵⁹

**Bracing for the First Wave**

As the pandemic grew in momentum, cases began rising rapidly in Sweden and on March 17th, hospitals in the Stockholm area were directed not to admit patients whose age or body mass index exceeded 80 and 40, respectively. These patients were viewed as unlikely to be able to make a recovery and such was the situation that medical care had to be prioritized.⁶⁰

There was substantial domestic support behind the Swedish strategy, but there was also significant dissent. Swedes seemed to be divided on how to conceptualize the pandemic, but the largest proportion of people deferred to trusting their leaders with their fate. In April, roughly 31% of those surveyed believed that the country’s response to COVID-19 was simply not forceful enough while 18% were neutral and 51% considered the response to be appropriately forceful. Interestingly enough, despite the concerns that the country’s strategy was being executed at the expense of the safety of the elderly population, 40% of respondents aged 15-29 viewed the nation’s strategy as adequate compared to a higher figure 61% of those over 70. At this point, 49% of Swedes approved of Löfven’s handling of the pandemic as well.⁶¹

**Quarter One Economic Performance**

In the midst of the controversy surrounding its unconventional approach to handling the pandemic, the Swedish government released the first quarterly report of the fiscal year. Shockingly, Sweden was able to moderate the economic impact at the onset of the crisis, as the country’s GDP grew by 0.1% in the first quarter of 2020 from the fourth quarter of 2019. This contrasts with the sharp drop in GDP experienced by many other advanced economies indicated by the small increase in GDP for the first quarter of 2020 contrary to other advanced economies (Exhibit 15). Whereas Sweden experienced a 0.1% increase in GDP, in the Euro area, GDP had decreased by 3.7% and in the aggregate of the 27 countries of the EU, GDP decreased by 3.3%.⁶²

While the rather less restrictive measures helped cushion the immediate impact on the economy, exporting industries experienced declines in output as cross-borders value chains were disrupted. Durable consumer goods, travel services and capital goods-producing sectors were...
particularly affected. Although exports temporarily increased (Exhibit 10), Sweden’s composite purchasing managers’ index (PMI) declined from 55.3 index points in February to 45.6 index points in March, with the manufacturing sector being more heavily impacted than the services sector (Exhibit 16). Household consumption fell sharply, decreasing 2.5% in quarter one, although this decline is less than other countries as well as the EU aggregate of 3.0%. The main factors of consumption shrinkage were reduced expenses for transportation and vehicles, as well as a substantial decline in purchases abroad. Unemployment rose from 7.5% in January to 8.2% in February, before dropping to 7.1% in March (Exhibit 5). In comparison, the EU’s aggregate average unemployment rate was 6.4% in March.

The Rising Star of the Public Health Agency

Responsible in large part for Sweden’s unique approach, the PHA, led by Tegnell, began to attract a great deal of attention. Tegnell became famous all over the world for what many deemed to be a brazen approach. His press conferences became globally viewed, and Tegnell’s face could be seen sported on tattoos and t-shirts in Stockholm as well as in other countries around the world, where his method for combating the pandemic was applauded. In April, Tegnell expressed confidence in Sweden’s tactics, and despite qualifying that herd immunity was not the express goal of the nudge approach, he predicted that herd immunity in Stockholm could be mere weeks away. Despite being often misrepresented with regards to her immunity, Tegnell maintained that Sweden was seeking a way to live long term with the virus, asserting, “We believe herd immunity will of course help us in the long run, and we are discussing that, but it’s not like we are actively trying to achieve it as has been made out (by the press and some scientists). If we wanted to achieve herd immunity, we would have done nothing and let coronavirus run rampant through society. We are trying to keep the transmission rate as low as we can.”

Tegnell’s approach was met with a great deal of backlash within the scientific community of Sweden. Starting in April, members of a scientific forum on COVID-19 called Vetenskapsform COVID-19 decried Tegnell’s guidelines and measures as irresponsible and highly dangerous. Many openly expressed fear and condemnation for Tegnell’s approach as well as for the Swedish national government’s inability to take uniform action on a national level and bypass the bureaucratic red tape which restricts national mandates. Many of the scientists and disease specialists who expressed dissent in this way faced backlash and personal threats.

While almost every other country in the world closed down schools and in-person learning, Sweden maintained that all persons 15 years of age or under were required to attend school in-person. Parents of children with pre-existing conditions that would make them more susceptible to a serious case of COVID-19 feared that they may have had their children taken away if they didn’t send them to school because the Swedish government did not identify children as a group at risk for any sort of serious infection from COVID-19.

At the end of May, more than 5,000 people had died in Sweden from COVID-19. Although Sweden made it through the first wave with excess deaths per 100,000 lower than numbers reported by Spain, Belgium, and the United Kingdom, its numbers far eclipsed its Nordic neighbors of Norway, Finland and Denmark who detected no excess death during the first wave.

In Calm Water, Every Ship Has a Good Captain

After a rocky first wave, public opinion was a bit shaken in Sweden, with faith in the government’s handling of the pandemic falling but many Swedes still backing their nation’s approach and feeling vindicated. The first wave having passed, Sweden experienced low daily
infection and daily death figures for most of the summer. However, even as many hailed Tegnell and Sweden for seemingly finding a way around lockdown measures without experiencing catastrophic consequences, many were just as unconvinced. Confidence in the nation’s undertaking of the pandemic dropped 11 points to 45% from April to June. In June, Löfven’s approval rating also fell by 10 points. Tegnell admitted that more should have been done to contain the spread of the virus in elderly homes and that a more ideal strategy would have balanced Sweden’s approach and the rest of the world’s but reaffirmed that “the basic strategy worked well” and “based on the knowledge we had then, we feel we made the appropriate decisions.” Tegnell stuck to the principle that lockdowns were not sustainable long term and violated other central components of what public health should do as they could lead to other health problems such as mental health issues.

Löfven also remained generally unwavering when on his fealty to the country’s strategy. Curiously, some of the most vocal dissent on the pandemic strategy in Sweden, came from the far-right Swedish Democrats. Aside from generally wishing to oppose the measures of a left winged government, the Swedish Democrats assert that immigrants and asylum seekers who had not complied with guidelines over a lack of understanding exposed elderly people at the care homes they worked at.

Though a majority of Swedes said that COVID-19 led them to desire greater cooperation with the EU, the proportion of Swedes that maintained that claim was less than the proportion of any other European country surveyed. As Swede’s looked inward, cynicism infected perspectives on domestic and international affairs (Exhibit 19).

Quarter Two Economic Performance

Unlike the unwavering attitude of the Swedish government, the Swedish economy took a hard hit in the second quarter. The impact of the COVID-19 on the Swedish economy was extensive in the second quarter. GDP plummeted by 8.3 percent (Exhibit 11), which was the largest recorded decline in GDP over the past 40 years. This marked a great difference between Sweden’s economy in quarter one, which emerged comparably unscathed, and in quarter two, which hit a historic low. However, compared to Germany, France, Italy, and Spain individually, as well as the aggregate EU GDP percent change, Sweden’s economy performed better overall (Exhibit 15). The EU saw a decrease in GDP of 11.4% in the second quarter, while the Euro-area saw a decline of 11.8%, the largest the EU has experienced since its beginnings in 1995. In the Nordic neighboring countries, GDP fell less than in Sweden, with Denmark reporting 7.4% decrease, Norway reporting 6.3% decrease, and Finland reporting 4.5% decrease.

This broad downturn in the economy could be attributed to both domestic demand and foreign trade falling markedly. The second quarter saw Swedish exports of goods decrease by 16% in value and by 15% in volume compared with quarter one, and imports of goods decreased by 12% in value and 10% in volume from quarter one. Comparatively, the EU 27 exports fell by 21% and imports by 19%. Sweden’s manufacturing sector was especially impacted by the external trade environment. In April, the manufacturing PMI index continued to fall by 6.9 points from March to 38.7 points, before slowly increasing by 2.4 points to 41.1 points in May and jumping to 50.1 points in June. The services sector was less severely affected in Sweden compared to other European countries, with PMI remaining well above the EU figures throughout the second quarter (Exhibit 16).
Household consumption dropped another 7.9% from the first quarter.\textsuperscript{81} In the EU, household consumption dropped 12.3%, the largest decline since 1999.\textsuperscript{82} However, after Sweden’s consumer confidence dropped to 73.6% in April from 89.7% in March, the figure recovered throughout the second quarter with May and June reporting 77.9% and 84.5% consumer confidence in the economy, respectively.\textsuperscript{83} Unemployment in the second quarter rose dramatically, from 8.2% in April to 9% in May, finishing at 9.8% in June.\textsuperscript{84} The EU reported an aggregate of 7.1% unemployment in June.\textsuperscript{85} As of July 15\textsuperscript{th}, the Swedish manufacturing sector accounted for 30 percent of all temporary layoffs, although it only provides 15 percent of total employment (\textbf{Exhibit 16}). The stock market showed recovery as well, climbing back up to 1600 points in June from a low of 1300 points in late-March (\textbf{Exhibit 12}).

\textbf{Forgetting the Elderly}

In May, research showed unfavorable results for the public health of the country. The PHA predicted that 40 percent of the Stockholm population would have gotten COVID-19 and consequently, the antibodies that would protect them by May. However, the agency’s data collected in June indicated that only 11.4 percent of people had such antibodies in Stockholm.\textsuperscript{86}

The PHA attributed the high COVID-19 death rates in Sweden to the large proportion of deaths that occurred in nursing homes, due to shortcomings in elderly care. The high infection rate across the country was the underlying factor that led to a high number of those becoming infected in care homes. Many sick elderlies were not seen by a doctor because the country’s hospitals were implementing a triage system that appeared to have factored in age and predicted prognosis. This likely reduced intensive care unit load at the cost of more high-risk patients — like elderly people with confirmed infection — dying outside the ICU.\textsuperscript{87} Only 13% of the elderly residents who died with COVID-19 during the spring received hospital care, according to preliminary statistics from the National Board of Health and Welfare released in August.\textsuperscript{88}

Mikael Fjällid, a Swedish private consultant in anesthetics and intensive care, says he believes “a lot of lives” could have been saved if more patients had been able to access hospital treatment, or if care home workers were given increased responsibilities to administer oxygen themselves, instead of waiting for specialist COVID-19 response teams or paramedics.\textsuperscript{87}

\textbf{Luck Never Gives; It Only Lends}

After a seemingly reassuring summer, a new tide of infection arrived to rock the Nordic nation and send COVID-19 cases soaring with exponential turbulence. Faith in Löfven’s handling of the pandemic plummeted as a mere 34% of Swedes approved of the prime minister’s efforts. Following suit, support for the Social Democrats tumbled to 29.4% as citizens grew more and more uncharacteristically cynical and uncertain about their futures.\textsuperscript{88} Even support For Tegnell, the once shining poster-boy of the Swedish way, dropped.

\textbf{Quarter Three Economic Performance:}

The end of September marked the end of the third quarter in the fiscal year. In the third quarter, Sweden’s economy seemingly began making a recovery from the hit it experienced in the second quarter. GDP increased by 4.9 percent when compared to quarter two (\textbf{Exhibit 11}), mainly driven by increased exports of goods and household consumption. In quarter three, export of goods and services grew 11.2% and imports of goods and services grew 9.2%.\textsuperscript{89} In August and
September, exports rebounded to pre-pandemic levels. Composite PMI scores averaged 55 points, a slight improvement over quarter two (Exhibit 16).

Market production increased by 6.7%, with output in goods-producing industries increasing by 11.2 percent, in service-producing industries, by 4.5%, and in government production, by 1.8% percent. Comparatively, the EU experienced higher growth in terms of GDP and growth of exports and imports. GDP grew by 11.5% while exports increased by 17.2% and imports by 12.9% in the EU. Notably, every country Sweden had outperformed in quarter two in terms of GDP growth experienced higher performance in this quarter -- Germany, Italy, Spain, and France all experienced growth greater than 8%, with France topping the chart at 18.2% (Exhibit 18).

Household consumption increased by 6.3%, mostly made up of consumption of transports, as well as hotel and restaurant services. Although this is a positive improvement for the Swedish economy, this figure lagged behind that of the aggregate for the EU. The EU reported a 13.2% increase in household consumption. Unemployment saw a decrease in Sweden as well, finishing at 8.3% compared to quarter two’s 9.8% (Exhibit 5). This figure is slightly higher than the EU’s aggregate unemployment rate at 8.3% in quarter three, but shows improvement in the labor sector of the Swedish economy. Consumer confidence showed a slow but steady increase from 84.5% at the end of quarter two to 88% at the end of quarter three.

**Tensions Rising at Home**

In the backdrop of an economy healing from the damage done the previous quarter and internationally lauded low infection rates from the summer, the Swedish government attempted to continue with its previous, calm demeanor. Tegnell reiterated the party’s position that a growing death count did mean the strategy was necessarily going wrong, and remained optimistic throughout early October that Sweden’s measures had successfully prevented a second wave of cases from taking place. Other countries in Europe had started to see a substantial second wave that Sweden was simply not experiencing. Unfortunately for Tegnell, Löfven, and Swedish public, this anomaly proved merely to be a delay as Sweden began to rapidly accrue new case counts.

On October 23rd, a record high number of 1,870 daily cases was recorded in Sweden. In response to this, the PHA determined the peak infection number during the spring was likely much higher but went unrecorded due to the lack of testing at the time. Four days later, on October 27th, 1,980 new cases were registered, the highest number since the start of the pandemic. One week later, on November 3rd, that number grew tenfold to 10,177. One more week passed, and the daily infection numbers reach 15,779 on November 10th. Amidst international and domestic scrutiny, exponential surges in cases, and intensive-care beds almost full in Stockholm hospitals, Löfven was forced to walk back the government’s continuously lax attitude and make a second public address.

**A Departure from the Swedish Way**

On November 22nd, Löfven held for the second time in a calendar year, a most unprecedented live national address to the entire country. Both times Löfven spoke about COVID-19, but in late-November, the message had changed dramatically. Instead of the reassurance that there could be a middle path that protected both the economy and the people while circumventing national lockdown measures, there was a desperate plea for compliance with social distancing guidelines and frantic backpedaling. Löfven announced public gatherings are now capped at eight
people, schools are to be shut down, some for the first time, and alcohol sales are to be banned after 10 p.m. Institutions that had all been kept open for the duration of the pandemic were now closed. The PHA, along with Tegnell, were undermined and had their roles in the decision-making process for COVID-19 policy formally diminished. After the press conference ended, Löfven went as far as tweeting out urgent requests for citizens to refrain from going out to dinner, travelling, or going to the gym after the address to deliver his point.

The aura of calm that Swedes projected was fading. The government had acknowledged that the latest COVID-19 flare-up meant the economy will be weaker over the coming months than previously thought. Swedish Finance Minister Magdalena Andersson said the pandemic is now “just as serious” in Sweden as it was back in March and April. “The transmission we have seen recently, and the measures taken here and in other countries, are expected to dampen the economic recovery,” she said at a press briefing on Wednesday, November 18th.

The PHA also made policy U-turn from before, bowing to critics who have argued it has underestimated the potential for asymptomatic transmission of COVID-19. The agency said on December 1st that it recommended children who live with somebody infected by coronavirus to stay at home, contrary to previous advice that they should go to school or nursery. It follows yet another previous reversal in October that led to a recommendation that adults who live with an infected person should receive instructions from a doctor, including possibly seven days of quarantine rather than go to work as normal.

As cases rose in the late autumn at one of the highest rates in the world, those in Sweden began to seek to identify who or what might be culpable for the spike. Some blame healthcare systems for its shortcomings and the structure of the Swedish government. Some blame experts, some blame the politicians. The government’s contemptuous relationship with the PHA that had long drawn media attention had also come to a head. In October, it was revealed that there has been a lack of written communication between the prime minister and the PHA when one new outlet requested all correspondence between the prime minister’s office and the PHA for the period of January 1st to September 14th, and the prime minister’s registrar replied that none existed. Furthermore, on December 15th, Löfven appeared to levy the blame on health officials who he claimed underestimated the propensity for a heavy new influx of cases.

By December 9th, 2020, 99% of Stockholm’s intensive care beds were in use and the local health authorities requested staffing assistance from national officials. Instead of continuing on with the recommendation-based approach, the government began drafting a piece of legislation that would allow the government to circumvent constitutionally codified restrictions on mandating lockdowns and fining non-compliers. The bill, which would allow the minority coalition to cut shops’ opening hours and limit footfall, is due to take effect in March if it makes it through the consultation process.

The Economy Responds

The consumer confidence indicator in Sweden decreased by 0.9 points from the previous month to 89.2 in November 2020, as a second wave of infections and new restriction measures weighed on sentiment. Households became more negative about their own finances and about the development of the Swedish economy. However, the Swedbank Manufacturing PMI for Sweden rose to 59.1 in November of 2020 from an upwardly revised 58.3 in the previous month, the strongest expansion in factory activity since December of 2017, suggesting a robust recovery from the pandemic shock. Sweden’s Services PMI rose to 58.6 in November 2020 from an upwardly
revised 55.3 in the previous month, pointing to the sixth consecutive expansion in the services sector and the strongest since November 2018, driven by business activity and employment.

The newly introduced stricter COVID-19 response measures, while needed to fight the virus, are likely to dent economic growth, although the rebound seen during the summer months was stronger than expected, meaning it’s not yet clear how much full-year forecasts will need to be adjusted. The Swedish Finance Ministry’s latest estimate for 2020 points to a 4.6% contraction.106

Elsewhere in Scandinavia

Denmark

Denmark, a small country of 5.8 million people and Sweden’s neighbor and “old enemy” southwest of the Baltic Sea, was the second European country to implement what was considered at the time, exceptionally strict lockdown measures in response to the COVID-19 pandemic. On March 11th, Danish Prime Minister Mette Frederiksen announced the closure of all schools and universities across the country, in addition to paid leave for all non-critical public sector employees and encouraged the switch to remote working conditions for private sector employees and businesses.107 Restaurants, day cares, cafes, and gyms were all shut down, gatherings of more than 10 people were banned, and borders were closed to almost all foreigners with few exceptions.108 These lockdown measures were extended until April 15th, after which restrictions began easing in hopes of preventing Denmark from falling into a deep recession.109

As a result of these lockdown measures, the Danish economy contracted by 2.1% in quarter one, followed by a 6.9% decline in quarter two that rebounded by 4.9% in quarter three. Quarter one and quarter two’s economic performance was driven by low private consumption resulting from containment measures, as well as low government spending due to school closures and drops in exports and imports.110 In the third quarter, easing of lockdown restrictions contributed to overall growth and the strongest quarterly growth rate on record. With the exception of the first quarter, overall, Denmark has outperformed Sweden economically in both the second and third quarters.

Although Denmark has the second highest infection and death rate among the four Scandinavian countries, its numbers are several times smaller than Sweden’s at 100,489 total infections and 918 total deaths as of December 8th, 2020, compared to Sweden’s 304,793 infections and 7,296 deaths.111 Danes embrace a culture of trust like the Swedes, and adhered to the strict lockdown measures in March. As such, the country was able to ease some lockdown measure in April after having controlled the initial surge in COVID-19 infections. In June, the Danish government launched a COVID-19 infection tracing app that was downloaded more than 660,000 times, totaling approximately 12 percent of the Danish population, by July. The app allows citizens to self-report diagnosis and notifies them when they have been in close proximity to an infected. As a result of these measures, public approval for the Danish government’s handling of the pandemic at 95% was higher than each of the other 13 countries surveyed in August.112

Norway

A country of 5.3 million citizens and Sweden’s neighbor directly to the west, Norway implemented strict lockdown measures in the beginning of the pandemic as well. On March 12th, 2020, the government closed daycare centers, schools, and universities, as well as restaurants, gyms, and other businesses. Borders were closed to almost all foreigners, with few exceptions.
Social distancing requirements were also in place. These measures were extended through April, before the government started easing restrictions in May.

Norway saw similar economic performance as its neighbors who implemented strict lockdown procedures, with quarter one GDP contracting by 1.7%, quarter two dropping further by 5.1%, the steepest decline ever recorded, and recovering in quarter three by 4.6%. Key factors of poor economic performance in the first two quarters include low private consumption, low government consumption, and drop in exports and imports respectively. In quarter three, with the easing of restrictions, domestic demands and private consumption grew along with government consumption and exports and imports of goods and services, leading to economic recovery.

Norway has the third highest infection rate and lowest death rate in Scandinavia, with a total of 39,524 infections and 382 total deaths as of December 8th. In June, the Norwegian Prime Minister Erna Solberg admitted that its lockdown measures may have been too tough, as evidence had shown that the disease did not spread as quickly as authorities previously predicted. The COVID-19 tracing app that was successfully launched in Denmark was shut down weeks after its launch in Norway due to privacy concerns. Nonetheless, Solberg’s conservative party received a surge in public support for its handling of coronavirus, pushing it into the lead for the second month running. Widespread public support for the government’s handling of the pandemic deprived the opposition bloc of a majority for the first time in more than a year. Norway is also the only country to have been able to maintain a stable number of infections since the beginning of the second wave in November.

Finland
Finland borders Sweden to the northwest, Russia to the east, and has a population of 5.5 million people. Like its Scandinavian neighbors, Finland implemented strict lockdown procedures by declaring a state of emergency in the beginning of March and enforcing physical distancing measures, leading to a slow reopening of society a few months later in May. However, one big distinction between Finland and all other European countries is its focus on preparedness and how to act in national emergencies, born out of its collective experience during the Winter War in 1939-40 against the Soviet Union. Its law on preparedness explicitly mentions pandemics and was triggered for the first time since the second world war while its emergency stockpiles of medical and protective equipment were the envy of the continent amid shortages elsewhere.

Although its economy similarly contracted by 0.9% in the first quarter and 4.5% in the second quarter, it grew by a record-best amount, 3.3%, in the third quarter. Although the Finnish economy took a dive in the second quarter due to its strict lockdown measures and decreased consumption and trade, the country was able to keep its COVID-19 infection rates at a record low level. As of December 8th, Finland reported a mere total of 29,572 cases, the lowest among all continental European countries, and a total death count of 442. Finnish Prime Minister Sanna Marin has enjoyed high approval ratings of 85% for her government’s handling of the pandemic.

Is it Too Little Too Late for a Success Story?
Sweden seems to have been able to escape some of the harshest economic consequences that many states around the world experienced as their economies were rocked by shutdowns. As the government begins to reevaluate its strategy going forward, there is an undeniable reckoning occurring as Sweden must accept its vulnerability to a globalized world. The Swedish government fallaciously relied on individual responsibility to prevent the spread of a virus
wreaking havoc all over the world. Measures taken to slow transmission while accounting for efforts to preserve the economy did not come close to achieving their medical goal, but whether refraining from a shutdown was enough to save the economy in a significant way is not as clear.

What is clear is that as the situation in Sweden fluctuates, those who are on either side of the debate on Sweden’s COVID-19 strategy have found themselves at some point in time seemingly vindicated by the data and events unfolding at that same time frame.

Sweden attempted to be exceptional in its efforts to contain COVID-19 as well as preserve its economy and may have wound up successful in neither pursuit. As Prime Minister Löfven works with his government to take greater action on a national level that parallels more conventional COVID-19 containment strategies and Anders Tegnell finds himself less relevant and revered, Sweden must come to face with the reality that it may have to do just what it expects its citizens to do: conform.

**Exhibit 1:** The Swedish Healthcare Governance Structure

Exhibit 2: Swedish Public Health Agency’s Guidance to Protecting Oneself

- Stay home even if you only feel a little bit sick.
- 70 years old and older – avoid close contacts.
- Wash hands often with soap and water.
- Avoid social gatherings with large groups.
- Maintain distance from others both in & outdoors.
- Refrain from unnecessary travel.

Exhibit 3: Timeline of Swedish Policy Interventions


Exhibit 4a: Dec 2019 Unemployment Rates

Exhibit 4b: Dec 2019 Household and Business Confidence Indicator

Sources: Statistics Sweden and NIER.

Source: “The Swedish Economy December 2019.” konj.se. NATIONAL INSTITUTE OF ECONOMIC RESEARCH.

Exhibit 4c: Dec 2019 Export Orders in Manufacturing

Sources: Swedbank/SILF, Macrobond and NIER.

Source: “The Swedish Economy December 2019.” konj.se. NATIONAL INSTITUTE OF ECONOMIC RESEARCH.
Exhibit 5: Sweden Unemployment Rates


Exhibit 6a: Swedish Daily Coronavirus

Exhibit 6b: Swedish Daily Coronavirus Death

![Swedish Daily Coronavirus Death Graph]


Exhibit 7: Prime Minister’s Address to the Nation on March 22, 2020

This evening, I would like to speak directly to you, the Swedish people. The COVID-19 virus is testing our country, our society and all of us as fellow human beings. Every person now needs to mentally prepare for what is coming.

In Sweden, the COVID-19 virus is now spreading in the community. Lives, health and jobs are at risk. More people will get the disease, more people will have to say a final farewell to a loved one. The only way to manage this crisis is to face it as a society, with everyone taking responsibility for themselves, for each other and for our country.

I know that many of you are worried. Worried about how our society will manage this crisis. Worried about yourself, about someone you love who is in an at-risk group, or that your job will disappear. I understand this. The coming months will be trying. But our society is strong. Our government agencies are working hard day and night. Our health care and education professionals and many, many other people in critical jobs are keeping our country going.

I, as Prime Minister, and the Government I lead, will take every decision that is necessary to protect the lives, health and jobs of as many people as we possibly can.

In Sweden, public gatherings of more than 500 people have been banned, and upper secondary school and university education is now conducted online. I want you to be prepared for the
possibility of further far-reaching decisions, sometimes at short notice, sometimes disrupting our everyday lives even more.

The aim of the Government’s work is to limit the spread of infection, to prevent too many people becoming seriously ill at the same time. But also to secure health care resources, and at this difficult time lessen the impact for those of you who work and for businesses. Be prepared for this to continue for a long time. Be ready for the situation to change rapidly. But you should also know that we as a society are tackling this crisis with our collective strength. Now we all have a great personal responsibility.

There are a few critical times in life when you must make sacrifices, not just for your own sake, but also for those around you, for your fellow human beings, and for our country. That time is now. That day has come. And the duty is everyone’s. Each and every one of us has a responsibility to prevent the spread of infection, to protect older people and those in other vulnerable groups.

None of us should risk it. None of us should go to work with symptoms of illness. Young, old, rich, poor – it doesn’t matter, everyone must play their part. This also applies to those of you who are 70 or older, or who belong to other at-risk groups. I understand that it is frustrating to have to restrict your life, your social interactions, but right now it is necessary. For the sake of your own health of course, but also to protect other people and give the health care system a chance to manage the situation.

And the adults among us must now behave like adults. Not spread panic or rumours. No one is facing this crisis alone, but everyone bears a huge responsibility. Each and every one of us. I know that the demands are huge. But this is the only way we can hold back the spread of infection. I know that some restrictions are trying. But this is how we can make sure that the health care system can manage the crisis. I know that the situation feels tough. But following the advice of the authorities is every person’s duty. Yours – and mine.

Many of you are taking your responsibility as fellow human beings. You are helping your neighbours with their shopping, you are supporting your local restaurant by buying a takeaway lunch, you are not visiting your grandmother – but you are ringing her every day for a chat instead. This is solidarity in practice. I am proud to be Sweden’s Prime Minister when I see what so many people are doing for their fellow human beings.

You are showing that when things are at their toughest, our solidarity is strongest. I am sure that every one of you in Sweden will take your personal responsibility and do your utmost to safeguard other people’s health and help each other. And that you will be able to look back on this crisis and be proud of your role, your contributions for your fellow human beings, for our society and for Sweden.

Thank you

Exhibit 8: Public Opinion Surveys on Sweden’s COVID-19 Strategy

Exhibit 9: 2018 Swedish General Election Results


Exhibit 10: Percent Change in Trade in Export Goods, Q3 2019 – Q3 2020

Exhibit 11: Percent Change in GDP Previous Quarter (Data Up to Date to include 2020 Q3)


Exhibit 12: Sweden Stock Market Performance, Jan 2020 - Dec 2020
Lesson Learned?
How the strictness of national COVID-19 policies changed over time

Source: Our World in Data/Oxford COVID-19 Government Response Tracker
Note: Data tracks a composite measure based on nine response indicators including school closures, workplace closures, and travel bans. The score reflects the strictness of government policies, from 0 to 100, where 100 = strictest.

Exhibit 14: Cultural Map of the World


Exhibit 15: Swedish GDP Change Relative to Other European Countries, Q1 & Q2 2020

**Exhibit 16a:** Manufacturing Purchasing Managers Index for Sweden, Q1 and Q2 2020

**Figure 19. Purchasing Managers Index:**
Manufacturing

(Seasonally adjusted)

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<th>Mar-20</th>
<th>Apr-20</th>
<th>May-20</th>
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<td>DNK</td>
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Sources: IHS Markit, Swedbank and Haver Analytics.

**Figure 20. Sweden: Short-term Layoffs and Employment Share by Sector**

(Percent of total layoffs; percent of total employment)


**Exhibit 16b:** Services Purchasing Managers Index for Sweden, Q1 and Q2 2020

**Figure 21. Purchasing Managers Index:**
Services

(Seasonally adjusted)

<table>
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<td>Euro Area</td>
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Sources: IHS Markit, Swedbank and Haver Analytics.

**Figure 22. Europe: Hotel Revenues in March**

(Percentage changes between 2020 and 2019)

Exhibit 16c: Composite Purchasing Managers Index for Sweden, Q1 2019 to Q3 2020


Exhibit 17: Swedish GDP

Exhibit 18: GDP Growth Rates in Q3, 2020, in the EU and Euro Area


Exhibit 19: Attitudes Toward EU in Times of COVID-19

Endnotes


3. Ibid.


5. Ibid.


23. Ibid.
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The Radicalization of the Far-Right in Germany and Regional Disparities in Support

SOPHIA WINOGRAD
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ABSTRACT: The radicalization of far-right political groups is becoming an increasingly dangerous problem in German politics. While Germany may be viewed as a fervent ally for liberal thought in Europe, the far-right Alternative for Germany (AfD) party is gaining substantial traction in national politics. Interestingly, the AfD has grown disproportionately by region, drawing more support from East Germany than West. The underpinnings of this trend hinge upon increased asylum being granted to Muslim immigrants and the long-held disdane by the East for the West’s economic successes. An understanding of the AfD’s popularity is integral to combating intolerance and radicalization within Germany as well as the threat of its spread throughout Europe.

Introduction
The radicalization and political success of Germany’s far-right party, the Alternative for Germany or AfD, could pose a threat to Germany’s role as the defender of a liberal and tolerant Europe. The AfD’s negative attitudes towards immigration and Islam have fueled its most recent political advancements in the national parliament — the party won 12.6% of the national vote in the 2017 federal elections as well as making significant electoral gains in regional state governments (Arzheimer and Berning, 2019). In the state elections in the fall of 2019, Thuringia, Brandenburg and Saxony experienced large advances by the AfD — the party is currently the second largest party in these state governments, representing dramatic increases in the AfD’s vote share since the party’s establishment in 2013 (Chase and Goldenberg, 2019). It is also important to note that the AfD has veered sharply to the right since 2013. While it was founded as a conservative free-market protest party against the Greek bailout and the euro, it is now defined by its nationalist, anti-immigrant stance with elements of right-wing populism, racism, and neo-Nazism (Bennhold and Eddy, 2019). The AfD’s support also varies significantly among Germany’s states, as AfD support is much more prominent in the former East than in the former West (Goerres et al, 2018). In the elections to the European Parliament in 2019, the AfD received 11% of the vote — better than its 2014 outcome but worse than the 2017 elections — and managed to beat Angela Merkel’s center-right CDU to first place in two east German states. Currently, the AfD still comprises the largest opposition party in the German government ahead of the 2021 federal election, with polls predicting the AfD to win about 10% of the vote.

This paper seeks to understand why the AfD has radicalized and grown in prominence in recent years and, especially, why the regional differences in far-right support between the East and West exist. I argue that the recent rise of the AfD is the result of the recent spike in Muslim migrants seeking asylum in Germany and the fervent feelings of nationalism and xenophobia which it sparked, notably in the East. Secondly, I will argue that the greater support for the AfD in
the East is the result of long-existing feelings of disillusionment and resentment with the economic successes of the West as well as the socio-cultural differences that prevail today as a result of Germany’s divided history.

Germany is the symbolic leader of liberal democracy and tolerance in the E.U. and, as a result, the radicalization of the far-right in Germany poses a risk to liberal democracy everywhere. The analysis of the far-right also extends beyond Germany’s borders — in the last 10 years, we’ve seen tremendous advancements made by populist radical-right leaders and parties all over the world, and especially in Europe. The trend of such rising radical right anti-immigrant nationalist parties poses a serious threat to the survival of liberal democracy. The fact that the radical far-right is succeeding in Germany, a country with a history of Nazism that experienced the worst of what the far-right is capable of, is shocking and alarming. This paper will initially seek to understand why the far-right is radicalizing and succeeding in Germany and will focus on exploring the root of the regional differences in the AfD’s electoral base.

I have structured this paper in various sections for the purpose of clarity and organization. I will begin the paper with a literature review which will establish a scholarly foundation of what has already been said regarding the rise of populist radical right parties and regarding explanations for the regional split in AfD support. Next, I will present my hypotheses which provide the logic behind my argument, and then introduce my argument which aims to synthesize different strands of the academic literature. I argue that scholars have oversimplified the explanation for why the AfD is more successful in the former East than in the West and that a combination of political-cultural and social-economic factors as well as historical legacies have united in this specific context to facilitate the stark regional divide. The research design section establishes how I intend to go about gathering and analyzing the evidence I will use to answer the research question. Lastly, I include my findings and analysis which confirms that a confluence of variables has enabled the regional divide in support for the AfD to emerge.

**Literature Review**

*What Sort of Party is the AfD?*

The party was initially established in the context of the euro-crisis, and it stood for market-liberalism and Euroscepticism. The AfD advocated for the end of Germany’s participation with the euro and for the reintroduction of the ‘Deutsche Mark’, Germany’s former currency. While the AfD already had a nationalist element, it was restricted mainly to economics. Already in 2014, internal disputes within the party led to the emergence of two factions: one Eurosceptic market-liberal faction and one national-conservative faction that focused on immigration (Goerres et al, 2018). As the refugee crisis began severely impacting Germany in 2015, the AfD shifted in the radical-right direction in its adoption of an anti-immigrant, xenophobic and nationalist stance. One common element however remained present throughout the entire party’s history: a distinctly populist theme, either pitting the common people against an undemocratic elite or pitting German nationals against immigrants and asylum seekers (Goerres et al, 2018).

This paper will use the description of a ‘populist radical right party’, or PRRP (Goerres et al, 2018) – to describe the nature of the AfD. The PRRP class of political parties includes aspects of nativism, authoritarianism, and populism, as defined by Mudde (2007). Other far-right parties in Europe include Hungary’s Fidesz led by Viktor Orban and France’s National Rally led by Marine Le Pen. According to Mudde, nationalism strives to achieve a monocultural state, driven by ideas of internal homogenization and external exclusiveness. Nativism, as a subtype of nationalism, is an ideology that finds that states should be inhabited exclusively by members of
the native group, and that nonnative persons and ideas are fundamentally threatening to the homogeneous nation-state. Authoritarianism is defined as the belief in a strictly ordered society in which infringements of authority are severely punished; the third feature, populism, is understood as an ideology that pits society into two groups: the pure people and the corrupt elite. Given Mudde’s categorization of a party’s ideological stance, the AfD seems to fall well within the PRRPs, and has been accepted as such by multiple political scholars in recent years.

Demand-Side & Contextual Factors in the AfD’s Recent Success

The demand-side explores the reasons behind electoral support: cultural, economic and political factors as well as the changing political context that influences people to vote AfD. The literature has mainly focused on the rise of the modern political radical right, but not so much on the specific upsurge in support for the AfD or on the disparities between former Eastern and Western Germany. A popular explanatory approach is the cultural backlash thesis: “People who feel left behind or those who stand in conflict with more liberal views on topics such as family, sexuality, or national identity mobilize as a form of cultural countermovement against liberal and cosmopolitan value orientations” (Richter and Quent, 2019: 44). In the case of the AfD, supporters tend to share some key cultural-political attitudes – namely their rejection of immigration and their authoritarian, anti-democratic and chauvinistic attitudes (Richter and Quent, 2019: 44). In terms of the historical East-West and its cultural-political implications today, Richter and Quent examined how the East German disappointment after German reunification, which stemmed from mass closures of East German businesses, high unemployment rates and the feeling of being second-class citizens, helped conjure an “East German identity” which relied on depreciating the ‘other’ and those perceived as ‘weaker’ (2019: 46). Scholars have coined the term “East Deprivation” to describe the perception of personal and collective discrimination felt in the former East and have connected this perception of frustration and victimization to far-right extremist support in former East Germany (Richter and Quent, 2019: 47).

Hansen and Olsen found that AfD voters in 2017 were driven solely by two factors: their attitudes towards refugees and anti-establishment sentiments with democracy (2019). Between 2015 and 2018 Germany accepted an unprecedented 1.4 million, primarily Muslim, refugees from the Middle East and Africa. This was by far the most of any country in Europe (Statista.com, 2018). Germany is a country with a large Christian population; thus, xenophobia and anti-immigrant sentiments began to grow in parts of the country, especially in the East. The result of such a significant influx of migrants into a predominantly Christian country was the rise of xenophobia, racism, and ethno-pluralism – the belief that unique national cultures can only be preserved if they are kept separate - especially in the East (Goerres et al, 2018: 251). Such cultural sentiments seem to be a major motivation in Germany’s support for the AfD.

The literature has also examined socioeconomic explanations for divergence in regional support for the AfD. Such explanations are typically referred to as “losers of modernization” theories: “real or feared economic deprivation leads to disappointment and anger, which manifests itself in a turning away from established parties and towards the alleged solutions offered by populist and extremist parties” (Richter and Quent, 2019: 43). Most scholars agree that economic motivation exercises only a slight role in gauging support for the far-right since nationalist ideology remains the primary motive of PRRPs. However, in the case of former East and West Germany, where an economic gap stemming from the post-war divide remains to this day, the economic factor is worth exploring. Economic disillusionment in the former East could be a potential factor causing higher support for the AfD compared to the more economically successful
former West. Goerres et al. find that economic motivations do indeed drive PRRP success — laissez-faire policies aimed at less economic redistribution, lower taxation, reduced welfare expenditure and welfare chauvinism are crucial elements of the typical PRRP platform (2018). Goerres et al. additionally find that PRRP supporters are driven by three economic motivations: welfare chauvinist attitudes, high criticism of programs they suspect to disproportionately benefit immigrants, and support for social insurance programs believed to benefit the more ‘deserving’ rather than the poor and unemployed. When considering the former East and West, the East lags behind the West on multiple fronts — the former East has a higher unemployment rate, less disposable income, a lower per capita GDP, and a lower quality of living (PewResearch.org, 2019). Since the AfD earns disproportionately higher support in the former East, the economic variable is not to be discounted.

Another aspect of the scholarly literature regarding the rise of far-right radical parties is the contact theory argument which argues that increased contact with members of diverse ethnic groups will reduce prejudice and xenophobia as first-hand information about the out-group becomes available (Goerres et al, 2018: 253). The fact that there are disproportionately fewer migrants in the former East might correlate with what the contact theory would predict. Since the East Germans have less contact with the immigrants, this theory predicts that they would hold more xenophobic and racist attitudes.

Lastly, scholars have discussed the political history of Germany with regards to regional support for previous far-right parties as an explanatory variable. Goerres et al. find a significant correlation between current support for the AfD and the electoral base of Die Republikaner, Germany’s radical-right party in the 1994 German Bundestag elections. Additionally, Richter and Quent find that 360 Nationaldemokratische Partei Deutschlands or National Democratic Party of Germany (NPD) elected officials are presently strongly rooted in Eastern communities. The NPD is Germany’s far-right and ultranationalist party founded in 1964 as a successor to the German Reich Party (2019: 44). Richter and Quent find that …

In such areas, where far-right extremist issues supported by the NPD have found resonance in the social discourse for a long time, we may assume that processes of normalization and relativization go hand in hand with lowered resistance to far-right extremist positions within daily political discourse to a much greater degree (2019: 44).

Such results indicate that there may be specific local regions where extreme and radical-right voting is more common and more socially acceptable, and that these regions have historically been in the former East.

Supply-Side Factors in the AfD’s Recent Success

The characteristics and evolution of the AfD party presents another aspect in explaining the rise of the far-right in Germany. Much of why the AfD has become successful in recent years is because it began as a market-liberal Eurocentric party, not a radical-right extremist party based on nationalist ideology, because given Germany’s history with right-wing extremism, no overtly radical right party has entered the government since the end of the Second World War. As the party evolved with the influx of immigrants in 2015, the AfD channeled feelings of resentment or anger into a nationalistic, xenophobic and anti-immigrant platform. Betz and Johnson explore the nostalgic ideology of the contemporary radical populist right — the far-right draws on feelings of resentment, unfairness and injustice and channels it against mainstream politicians whom they frame as the ‘self-serving corrupt political elite’ which pursues its own agenda without concern for ordinary citizens (2004). Thus, the party created the issue of a ‘perceived’ ethnic threat to
mobilize the electorate on a strong cause – that of restricting immigration in an effort to preserve the ‘pure, national and traditional’ culture. Ultimately, the AfD’s strategic shift to the far right with their anti-immigrant focus guaranteed the party the political support necessary to advance. The party justifies its racist and nativist rhetoric by claiming that exclusion of non-native groups is necessary to preserve the identity of the group, whose very ‘purity’ makes it sacred (Betz and Johnson, 2006).

Another supply-side aspect that might explain the rise of the AfD is the fact that the established parties were not satisfying the electorate on the key issue of immigration, providing a perfect opening for the far-right. Chou et al. refer to this as the ‘collective action dilemma’ — unless all established parties coordinate on proposing tougher immigration policies, the far right will remain a potent electoral force since they provide the sole channel of true representation for parts of the population (2018). Thus, support for the AfD remains stable and growing because other established parties fail to meet the people’s preferences on their most prioritized issue: immigration (Chou et al., 2018: 3). A key component of the AfD’s rhetoric is therefore anti-establishment, putting forth the argument that elites and political leadership have not been listening to the ‘real’ German people (Betz & Johnson, 2006). The AfD was able to gain voters who previously supported one of the five main established parties through the immigration issue. Hansen and Olsen characterize the AfD as a ‘protest party’ for those dissatisfied with the current state of politics in Germany, arguing that the success of the AfD might be a signal of the failure of the established parties in Germany’s current political system. Arzheimer and Berning see German Chancellor Angela Merkel’s decision to temporarily suspend the Dublin Regulation to allow hundreds of thousands of asylum seekers into Germany as the catalyst for the growth of the populist radical right in Germany (2019). The resulting ideological shift of the AfD in 2015, which framed migrants as a threat to German identity and success, induced German citizens to vote on the basis of their attitudes on immigration.

Hypotheses

H1. Why would the AfD be radicalizing now? It seems that the political contextual changes in the past few years have been paramount in shaping the electoral base of the AfD. The rapid influx of refugees from the Middle East and Africa – foreigners, ethnically and religiously, to Germans – seems to have sparked a xenophobic backlash. The AfD was able to shift its policy platform to reflect the sentiments of parts of the German population with extreme anti-immigrant attitudes. The AfD’s success is contingent upon feelings that the German national identity is being threatened and that immigrants from countries like Syria and Afghanistan are the cause of this threat because of the perceived danger associated with Muslim migrants. It is interesting that when Turkish immigrants arrived in Germany in the 1970s, there was no extreme backlash in the form of a nationalist anti-immigrant political party as there is today with the AfD’s explicit anti-immigrant agenda. The reason might be that Germany officially invited Turkish people to emigrate to help with their labor crisis: thus, they were labeled “Gastarbeiter”, or ‘guest workers’, and provided cheap labor for German benefit (Prevezanos, 2011). The Turkish migrants were not seen as threatening since they were initially expected to stay only for a few years, and their place in society was clearly subordinate to any German citizen. While opposition to Turkish immigrants did gradually take hold in the 1970s and 80s, it never amounted to the formation of a strong far-right anti-immigrant party.

Now, the situation is quite different. The migrants entering Germany are flocking in larger numbers and are not providing cheap labor, but are becoming recipients of Germany’s generous
social welfare system. In the eyes of the AfD and their supporters, the Muslim migrants are coming to Germany in the hopes of benefitting economically and therefore do not positively contribute to society. The large number of migrants from the Muslim world sparks more of a racist nationalistic backlash today because of these various factors. Thus, I propose that the root of the radicalization of the far-right party in Germany is the spike in Muslim immigration in 2015 which induced a threat to German national identity and wellbeing.

H2. The second question this paper will attempt to answer is why there is such a strong regional discrepancy in support for the AfD between the former East and West of Germany. In the 2017 German Federal Election, the AfD received 20.5% of the vote in former Eastern Germany, while in the former West, the AfD received 10.7%—about half (Hansen & Olson, 2019: 12). While many factors might be contributing to the larger far-right sentiment in the East, I propose the hypothesis that the regional discrepancies are due to the cultural and economic differences that prevail today as a result of the post-war period in which Germany was divided. Eastern Germans remain more culturally traditional and are thus more susceptible to xenophobic and nationalist sentiment, while the West is more culturally progressive and modern as well as more economically advanced than the East.

The logic here has to do with the continuing implications of the geographic and ideological split of East and West Germany after World War II. After the war, the goal of West Germany was to become a modern liberal democracy. Therefore, West German interests subjugated to the larger interest of ensuring the success of a post-war Europe. East Germany, on the other hand, was led by Soviet communists, cut off from the modern liberal world—nationalist sentiments were able to flourish as emphasis was put only on the success of communism in East Germany. There was little movement in or out of East Germany, thus ensuring the homogeneity of the East German population. On the economic front, the East still lags behind the West considerably, fueling feelings of resentment and frustration with both the West and the political establishment. In recent years, this resentment has grown to target Muslim migrants who they claim are threatening their economic and cultural livelihood. In an interview done by the New York Times, a retired hairdresser in former East Germany who voted for the AfD said she was fed up with how had not ensured her a good pension or enough teachers for schools but had somehow found money to integrate migrants: “I can barely pay for basics, while the newcomers are given so much. That isn’t right. It makes people really angry” (Bennhold and Eddy, 2019).

Therefore, nationalism and anti-immigrant rhetoric thrives much more in the East. The AfD taps into such feelings of resentment and redirects them towards foreigners whom the AfD claims are threats to Germans and the German national identity. The combination of the cultural and economic disparities that exist between the East and West of Germany today help explain why the AfD has disproportionately higher support in the East than in the West.

Argument

Part 1: Why did Germany’s far-right party radicalize in recent years, and what explains their success?

The radicalization of the AfD in Germany stems from the spike in immigration from the Arab world in 2015 and the evolving implications of the mass migration of Muslims into Germany. Coinciding with the global right-wing populist wave—as seen in the United States, Great Britain and France as well as many other countries—the rise in migration threatened German wellbeing and national identity. The AfD shifted to become a more radical right-wing, nationalist,
xenophobic party as the influx of Muslim migrants began in around 2015. As this is not such a contested phenomenon, I plan to focus my research and discussion on the second part of the argument.

Part 2: Why is the AfD so much more successful in the former East Germany than in the former West?

While much of the scholarship has focused on separating politico-cultural and socio-economic factors, I will argue that it is the confluence of all of these factors that have converged in this particular time and context. Many political scientists have advantaged one unidimensional explanation at the expense of others, and I believe that this is not the right approach because the current specific context of Germany has allowed all of these factors to unite in a way that has brought about the success of the AfD particularly in the former East. All dimensions overlap and interact with one another. Nationalism and anti-immigrant rhetoric thrive much more in the East because of cultural and economic differences that stem from the West-East divide which lasted from 1945 until 1989. The legacy of separation stemming from the post-war time has resulted in cultural and economic differences that prevail today, and these differences have allowed the AfD’s rhetoric to resound more in the East than in the West. In the former East, the AfD is able to tap into feelings of resentment towards the West and towards the political establishment and redirect such anger toward Muslim migrants and foreigners whom the AfD claim are threats to Germany and to the German national identity.

The AfD is successfully using East Germans’ feelings of resentment and disillusionment to form a nationalist coalition that stands against globalization and immigration. Some of the factors I will explore are the legacy of communism and authoritarianism in the East today and how this historical legacy has engendered stronger feelings of nationalism and xenophobia in the East. Additionally, economic disparities that stem from the East-West divide have allowed the West to economically succeed at higher rates and achieve higher levels of education. I intend to analyze how the combination of the cultural and economic disparities that exist between the East and West today as a result of Germany’s history of separation help explain why the AfD has disproportionately higher support in the East than in the West.

Research Design

To test my two hypotheses, I use a two-part research design. The first part addresses the question of why the AfD is radicalizing now. I will do a qualitative analysis to develop a thorough explanation for why the AfD has become more successful in recent years. I identify a link between increased immigration from Muslim countries and higher support for the AfD and therefore propose that the spike in immigration caused a right-wing nationalist populist backlash because of the perceived threat to German national identity the migrants caused. I will explain the correlation between increased migration and increased support for the AfD through a qualitative analysis: why did people begin harboring such extreme anti-immigrant feelings, and how did the AfD’s platform evolve to explicitly adopt an anti-immigrant program? The qualitative nature of my research will seek to determine what exactly the causal mechanism is behind increased immigration and higher support for the AfD. I will analyze national and local news sources, the evolution of party platforms, and already-existing interviews with both members and supporters of the AfD. The mechanism I am trying to isolate is changing opinion toward immigration(essentially a measure of changing xenophobic and nationalist sentiment) as well as the changing character and policy platform of the AfD from a free-market party to an anti-immigrant right-wing populist party.
The second part of the research design will address the regional split in support for the AfD – in essence, why former East Germany has significantly higher support for the AfD than the former West. I will determine what factors are motivating support for the AfD and look at differences between West and East Germany as well as overall trends in the former West compared to the East. In order to identify the mechanism for why political-cultural and social-economic factors influence whether individuals hold anti-immigrant or radical right beliefs, I will do qualitative analysis through analyzing news sources, available online interviews, and various AfD official online platforms. This will reveal why former East Germans feel more inclined than former West Germans to vote for the AfD. I expect to find higher perceptions of threat as a result of Muslim migrants in the East, for which I will present evidence of political-cultural, social-economic and historical factors in influencing such anti-immigrant feelings. While the economic factor might be prevalent, I foresee that the social-cultural and historical variables will be more significant in influencing higher AfD support in the former East.

Through analyzing news sources, interviews and AfD online platforms, I draw the connection between stronger negative feelings and racism towards Muslim migrants in the East because of the threat they pose to East German economic advancement as well as the perceived ethnic threat as a result of stronger feelings of racism in the East. I find evidence that resentment towards the West already exists in the East, as I explore deeper through qualitative analysis of local newspapers and existing online interviews. The qualitative analysis will reveal that the AfD redirects already existing resentments in the East – economic, social and cultural – and frames the migrants as dangerous intruders that will keep East Germans behind and threaten the traditional German identity to which East Germans cling.

In an effort to get at the root of the AfD’s recent success and regional disparities within Germany, I have considered multiple avenues to come up with qualitative data. First, I analyze AfD online discourse in the form of Facebook and Twitter posts, AfD campaign posters, and comments made by AfD party members and leaders found from interviews conducted by reputable German news and media organizations. Second, I consider what AfD supporters are saying through analyzing interviews conducted by news and media organizations. Third, I delve into Germany’s divided history to provide insight into why West and East Germans still think and act so differently after thirty years of reunification.

Findings & Analysis
I have structured this section in three categories. I begin with my findings about the AfD as a party, analyzing the party’s public image and rhetoric, then move onto what is motivating AfD supporters to vote for the party, and lastly consider how Germany’s divided history has affected the regional split in far-right support. My findings reveal that the essence of the AfD as a party is their vehement anti-Islam and anti-refugee stance, and that this resounds well with East Germans because of their fear of ‘Islamization’ and of being left behind, culturally and economically which stems from the East’s unique historical legacy.

The AfD’s Public Image
The online social media content of the AfD centers around anti-immigration rhetoric. Serrano et al. analyzed the AfD’s social media platforms to find that the AfD was limiting their online content related to the economy while focusing on delivering provocative content related to immigration topics (2019: 222). Serrano et al. analyzed 12,912 Facebook posts and 30,437,991 tweets, using topic modelling to compare the AfD’s official party platform manifesto with their
social media content. Due to a lack of time and data analysis capabilities, I rely on their data and subsequent conclusions to support my analysis of the AfD’s social media discourse. While the AfD’s actual manifesto discusses the economy in 21% of the documents and immigration in 19.2%, on Facebook the economy is mentioned 4.5% of the time and immigration 16.1% and Twitter, posts regarding the economy make up 4.7% of the total while immigration make up 21.8% (Serrano et al., 2019: 222). The AfD is utilizing the power of social media to spread its more provocative anti-migration agenda, playing to those who hold xenophobic attitudes and who rely on social media as their news source. In fact, multiple studies have confirmed the fact that AfD supporters prefer to obtain information from social media platforms, stemming from their disenchantment with already established communication channels (Serrano et al., 2019: 215). Additionally, the AfD is the most active political party on Facebook with far more comments, likes and shares than any other German political party (Serrano et al., 2019: 2018). The AfD appears to be using social media as a direct means with which to get their more confrontational and inflammatory anti-immigrant messages across to their pool of frustrated voters.

The AfD’s campaign posters carry an obvious and garish tone of anti-Islamist and anti-Muslim rhetoric, suggesting that the Muslim religion does not belong in Germany. A simple Google search allowed me to find a selection of Islamophobic slogans on AfD posters: “Stop Islamization”, “Islam-Free Schools!”, “’New Germans?’ – We’ll do it ourselves.”, ”End asylum fraud! Vote AfD", and “‘Burkas?’ We like bikinis.”. While the ‘Stop Islamization’ is an image of three Muslim women wearing burkas, the rest of the posters mainly depict pretty, white and young women. The rhetoric is clearly anti-Muslim – explicitly and negatively targeting an entire religious group – insinuating that asylum-seekers from the Arab world have no place in Germany and, contrary to Merkel’s open refugee policy, are not welcome.

Many AfD posters have been defaced, vandalized, or torn down. Therefore, campaign posters are mainly hung at night to avoid the public eye, and high enough to be out of reach to those without a ladder. Such an approach to campaigning reveals that the AfD are aware that their rhetoric is incendiary and thus use tactics to prevent outright opposition and public confrontation. Hanging the poster so high that it is out of reach allows the poster to exist in a higher dimension – the people have no say or right to oppose what the poster is suggesting, and such a tactic might even be accused as being undemocratic for this reason. The AfD’s decision to focus on such imagery and derogatory slogans in their campaign posters reflects the kind of image they want to disseminate to the German public, and by doing so, shifts the frame of acceptable public discourse to the right.

AfD Party Member Rhetoric

In analyzing interviews with AfD party members and speeches given, it becomes clear that some of their words and phrases are “confusingly similar to those used by the Nazis” (Hänel, 2020). Björn Höcke – the leader of the AfD’s far-right faction in Thuringia has been notoriously designated as a fascist by the courts, partly because he wrote a book so extreme that AfD lawmakers were not able to distinguish between Hitler’s “Mein Kampf” and Höcke when presented with excerpts which were all from Höcke’s book (Huetlin, 2020). Giving a speech in Dresden in January 2017, Höcke referred to Germans as being the “only people in the world to plant a monument of shame in the heart of its capital”, referring to the Memorial to the Murdered Jews of Europe in Berlin, and went on to call for a “180 degree change” in their commemoration policy (Taub and Fisher, 2017). Höcke’s inflammatory language does not end with belittling the Holocaust — he also utilizes racial stereotypes, making comments such as “thousands of German
youths experience school as a fearful place, because African thugs mob, terrorize and beat them there” (Hänel, 2020). While Höcke represents the more extremist members of the AfD, it is estimated that around 40% of AfD party members identify themselves with the Höcke-led extremist wing. Additionally, the more radical far-right contingency dominates in the Eastern states such as Thuringia while in the West, support is substantially lower and much more moderate (Hänel, 2020).

AfD leaders have been known for their offensive remarks, inciting public response and sparking debates around their racist, fascist and highly offensive rhetoric. Alexander Gauland, co-chairman of the AfD, spoke about German national soccer team’s defender Jerome Boateng, a Ghanaian German – asserting that despite his skills on the field, people would not want “someone like Boateng as a neighbor.” Gauland continued to say that “Germany should close its borders” and, referring to an image showing a drowned refugee child, claimed “We can't be blackmailed by children's eyes” (Hänel, 2020). In 2016, former co-chair of the AfD Frauke Petry condoned shooting at refugees attempting to enter Germany illegally, marking herself as the first German politician to condone shooting at the border since Communist East German leader Erich Honecker (Hänel, 2020). Further incendiary remarks came from Andrew Wendt, member of Parliament in the Eastern state of Saxony, who inquired into how far the state covers the cost of sterilizing unaccompanied refugee minors (Hänel, 2020). Andre Poggenburg, head of the AfD in Saxony, urged lawmakers in the state parliament to “get rid of, once and for all, this rank growth on the German racial corpus” – using phrases clearly reminiscent of Nazi terminology (Hänel, 2020). Lastly, Andreas Kalbitz, AfD chief of the Eastern state of Brandenburg, admitted to attending a 2007 rally in Greece at which a swastika flag was raised, releasing a statement in 2019 that claimed he took part “out of curiosity” (Hänel, 2020). AfD leaders, especially those in power in the East, have proven to be capable of truly remarkable horrid discourse. Most of these offensive comments are extremely racist, ultranationalist and highly aggressive at their essence.

What motivates all of these comments, though, is a nostalgia for a white and traditional Germany – a vision which is being threatened by western values of multiculturalism and globalization and the political establishment’s failure to acknowledge the fears and the anger of those in the East. Angela Merkel’s ‘Willkommenspolitik’, or ‘Welcome Politics’, that resulted in the mass migration of around one million asylum-seekers from the Middle East in 2015 and 2016 is portrayed as the catalyst for the breakdown of German society and culture. Central to the AfD’s narrative is that “the east is where Germany is still Germany and where men are still men”, evoking a narrative reminiscent of “gallic villages in the eastern countryside” (Bennhold and Eddy, 2019). The AfD thus promises to fight for the Germany that the East yearns for – giving them the attention that was lacking from the mainstream political establishment.

**Voting AfD in Protest**

Having analyzed the supply-side, the AfD’s public image and rhetoric, I will now go on to analyze the demand-side: how are AfD supporters receiving the AfD and what do they think about the party? In interviews with AfD party supporters found on Der Spiegel TV, findings seem to indicate that they view the party as a protest party. Der Spiegel TV reveals that many supporters are not familiar with the party platform but claimed they would vote for the AfD anyway, as a protest vote (Der Spiegel, 2016). Others referred to a time when they were ‘robbed by foreigners’ and conveyed that they understood the AfD to be a party for the older generation and those who hold resentments (Der Spiegel, 2016). Another claims that he views the party as a real alternative that has the capacity to deliver on promises of security and freedom (Der Spiegel, 2016).
Germans seem to vote for the AfD as a protest against the current establishment, Merkel’s open refugee policy, the perceived lack of understanding and attention given to them, and the fact that East Germans are being forced to accept asylum-seekers whom they view as intruding on and threatening the traditional German way of life.

‘Der Spiegel TV’ also includes various images distributed by the AfD – all of which portray Angela Merkel and refugees in a negative light. One image portrays Angela Merkel smiling in front of a decimated bleak scene of a destroyed city, with the slogan “Terror, Bombs, Migration: Mommy says, ‘You will make it!’” (Der Spiegel, 2016). An image disseminated by a young offshoot of the AfD – the ‘Young Alternatives’ – shows a wooden box containing an ax and a sledgehammer with the slogan, “Refugee-Starter kit” (Der Spiegel, 2016). In the interview, Young Alternative member David Eckert, a 24-year old right-wing thinker, says that “it is clear that a youth organization will be more provocative than the mother organization”, and when prompted to speak about the “Refugee-Starter kit” image, he replied that it can of course be interpreted as the fact that Germany is giving refugees the tools with which to start a new life in Germany. The interviewer responds by saying that it also is a very obvious reference to refugee ax-terrorism, to which Eckert remarks “but it is you that made that connection” (Der Spiegel, 2016). Eckert continues to say that the Young Alternatives seek to get rid of German citizenship for the many Turkish people living in Germany, claiming that there are problems with their loyalty to Germany, that the term ‘Turkish guest worker’ is a myth, and that they should all leave and move back to Turkey. Additionally, the youth organization’s platform contains the fact that Germany needs more children – essentially that it isn’t the answer to accept people from outside of Germany to constitute the new generation. Eckert finds that ‘Germany needs to move to the right’ and that he wants to see ‘eventual assimilation’ (Der Spiegel, 2016). Weronika Zimnik, a 15-year old member of the Young Alternatives, looks up to Björn Höcke – the leader of the AfD’s far-right faction – and says, “We don’t want to have the refugees. We don’t want the Western values here in East Germany” (Der Spiegel, 2016). Such findings indicate that the AfD focuses on portraying xenophobic narratives aimed at Germans who feel frustrated with Merkel and her refugee policy and who are nostalgic for and yearn for a culturally homogenous, traditional and white Germany.

Voting AfD Out of Fear and Resentment

AfD supporters also tend to be fearful about ‘Islamization and terrorism’ and saddened by their perceived ‘erosion of traditional family values’ (Hill, 2017). A cheerful blonde woman in her 60s who supports the AfD interviewed by the BBC said: “The old people don't dare leave the house after six o'clock … I live in such a beautiful place but when I open the door, the first thing I see is headscarves and then I go to the tram and I see the groups of young men” (Hill, 2017). Such voters are angry with Angela Merkel for having opened Germany’s doors to a million Muslim migrants, which they perceive as threatening local populations and the German national identity. Another interviewee voiced opinion: “The refugees come here but they don't plan to ever go back to their countries when the war is over. All along they planned to stay and replace the local population. More and more people are realizing that” (Hill, 2017). BBC journalist Jenny Hill finds that the East Germans are disappointed and resentful about feeling left behind:

They’re saddened by what they see as the erosion of traditional family values. And they're angry. Their fury is directed at the mainstream political parties which, they feel, don't care about them. But the main force of their ire is directed at Angela Merkel and her decision to open Germany's doors to a million migrants (Hill, 2017).
What is clear after examining the AfD’s public discourse is that the main factor attracting support is their utter insistence that Islam does not belong in Germany and that Merkel’s welcoming refugee policy has threatened the wellbeing of the German nation and identity. There are manifold reasons why people in the East sympathize with the AfD, but a key component is that they feel ignored and left behind by the modernizing forces of the West which are making decisions that they perceive to be harmful to Germany. What remains interesting is that far fewer asylum seekers arrive in the East; the majority of refugees actually reside in the West. This fact substantiates the contact-theory argument mentioned in the literature review – namely that increased contact with a certain outgroup softens opposition to that outgroup. With minimal contact with asylum seekers in the East, unsubstantiated myths and awful stereotypes flourish much quicker, leading to much more ardent negative attitudes towards that outgroup. It is clear that AfD supporters are attracted to the party because of its outright insistence that Islam does not belong in Germany. The AfD prides itself on being the right party to challenge the mainstream parties like the CDU and SPD which they perceive have led Germany astray.

A Divided History

Since the end of World War II, the East and West of Germany have had drastically different histories — from 1945 until 1989, East Germany or the German Democratic Republic (GDR) was under communist rule while West Germany was a federal republic – a democratic form of government. While reunification occurred over thirty years ago and was a positive event in Germany’s history, it had serious ramifications for the East, some of which are still being felt to this day. On the economic front, East Germany has remained about 30% lower than West Germany in regard to all important macroeconomic indicators since 1996 (Land, 2013:109). Additionally, East German unemployment has recently been up to twice as high as in the West, hitting a high point of more than 20% in 2005 (Land, 2013: 109). Further, in 2009, GDP per capita in the East was almost a third below that in the West (Ibid: 109). Such a persevering economic divide may have contributed to an increased sense of economic discontent, frustration with the West and of being ‘left behind’ for East Germans in an increasingly global and multicultural world.

In addition to the economic aspect, the legacy of an authoritarian communist regime also cannot be discounted in evaluating why the AfD’s radical platform is received more positively in the East than the West. Up until the end, the East German Communist Party “saw ‘the people’ as a homogeneous mass that shared the party’s views” (Bösch and Gieseke, 2018: 47). During this time, East Germans lived in a homogenous society that prided itself on social equality and order. Perhaps this history of racial and cultural homogeneity has engendered an ideal vision of a purely white and traditional German society with ‘law and order’ that subconsciously influences how East Germans perceive asylum seekers from the Arab world seeking refuge in Germany. The West was opened to the idea of democracy decades before the East, where ideas of cultural, societal and political heterogeneity were allowed to flourish much earlier.

This article seeks to understand why the AfD is so much more successful in the East than in the West. I argue that Germany’s split history has resulted in legacies that undeniably influence how Germans perceive themselves today and how they perceive the recent rise in immigration. While not only economically frustrated and resentful of the West, East Germans also have a dramatically different history that has influenced who they are and how they think. The AfD has managed to become a party that voices the concerns that matter most to East Germans in today’s world: immigration, globalization and the corrupt political establishment run by ‘Western’ values.
The Radicalization of the Far-Right in Germany and Regional Disparities in Support

The majority of the AfD’s rhetoric is focused on refugees and asylum-seekers, clearly playing on German xenophobic sentiments. However, the AfD utilizes the economic grievances and frustration of those in the East who feel ‘left behind’ not only economically but also socially and culturally. The AfD gives attention to such grievances and blames their current frustrations and anger on the mainstream political establishment who have facilitated the arrival of Muslim foreigners from the Middle East. Thus, the AfD’s rhetoric center on outright xenophobia while using economic and cultural grievances to mobilize voters and to convince them that the recent spike in Muslim migrants is the cause of their discontent.

Conclusion

I have argued that the existing literature has oversimplified the question of why the AfD is more successful in the former East than in the West. Scholars often name one factor as the cause of regional divides in political attitudes, but I have synthesized the various arguments to come up with a more nuanced and holistic understanding of the complex issue of populist radical far-right support. Through my analysis of the AfD as a party, of the attitudes of AfD supporters in the East, and of Germany’s historical legacies, the paper has developed the argument that a combination of political-cultural, social-economic and historical factors have united in this specific context to facilitate the stark regional divide in AfD support.

This article adds to the existing literature on the radical far-right in a few ways. First, it is an examination of the rise of the far-right in Germany specifically. Most existing scholarly literature is focused on Western Europe or even the world more generally, but this research project delves into explaining, specifically, the success of Germany’s far-right party, Alternative for Germany, or the AfD. Additionally, while there has been literature dedicated to the rise of the far-right in Germany, this paper hopes to shed light on the reasons for the strong regional divide in support for the AfD in the former East and West of Germany, for which little literature currently exists. This information might provide crucial information for those interested or involved in German politics, as comprehending the reasons an electorate votes and thinks the way it does is especially significant in the field of politics.

One limitation of this paper is that public sentiment and opinion regarding the AfD is rapidly evolving, and the success of the AfD varies in every election and in every German state. Thus, it is difficult to test a hypothesis about regional differences if the data changes when the next election cycle occurs. An additional limitation is that it would have been extremely helpful to actually talk to AfD voters in Germany to find out what’s truly behind their decision, both in the West and the East. Since conducting interviews was not feasible for me, this presents a limitation to the project. However, while the results might change slightly, I do not think they would discount my central argument. The decades of resentment and discontent felt in the East would not disappear, nor would their strongly felt attitudes of xenophobia and anti-Islamist fears that have facilitated the AfD’s success.
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Understanding the Unique Spatial Relations and Power Dynamics of China’s Urban Villages

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ABSTRACT: China’s recent history as a Communist stronghold-turned-economic-powerhouse has garnered widespread scholarly and popular attention, as its government seeks to marry economic liberalization with one-party rule, propping up the private sector while retaining the preeminence of the CCP (Chinese Communist Party). As its economy continues to grow at astounding rates and the state begins to take a more forward position on the world stage, many have deemed it an impending threat to Western hegemony. Yet focusing on China’s outward positioning obscures the many peculiarities bubbling within it. On the ground, the landscape of the country has been fundamentally transformed within a relatively short time frame. The geography produced by the quick one-eighty from state-sponsored communism to state-sponsored capitalism is fascinating, providing us with an insightful counterpoint to processes more familiar to us in the West. The rapid urbanization that has accompanied the onset of market reforms has led to urban forms and characteristics hitherto unseen.

I. Introduction

China’s recent history as a Communist stronghold-turned-economic-powerhouse has garnered widespread scholarly and popular attention, as its government seeks to marry economic liberalization with one-party rule, propping up the private sector while retaining the preeminence of the CCP (Chinese Communist Party). As its economy continues to grow at astounding rates and the state begins to take a more forward position on the world stage, many have deemed it an impending threat to Western hegemony. Yet focusing on China’s outward positioning obscures the many peculiarities bubbling within it. On the ground, the landscape of the country has been fundamentally transformed within a relatively short time frame. The geography produced by the quick one-eighty from state-sponsored communism to state-sponsored capitalism is fascinating, providing us with an insightful counterpoint to processes more familiar to us in the West. The rapid urbanization that has accompanied the onset of market reforms has led to urban forms and characteristics hitherto unseen.

This paper will focus on one specific peculiarity: the prevalence of urban villages within many of China’s megacities. This is a phenomenon that has not yet reached the public consciousness in the West but that provides a remarkable contrast to our notions of the urban-rural divide and class tensions ubiquitous in large cities. As urban sprawl collides with rural collectivized land, urban villages develop. They subvert traditional understandings of what makes a city and what makes a village and cause us to reconsider our preestablished notions of urban space, how it is produced, and who produces it. Classical theories of spatial production may not
be appropriate for explaining the dynamics within urban villages, and conversely, urban villages may shed light on aspects of the urban experience that these same theories overlook.

In this paper, I will explore these processes in relation to Henri Lefebvre’s framework of spatial production and Harvey’s theory of the “right to the city” (Lefebvre, 1974; Harvey, 2008). I argue that urban villages are atypical in that the interactions between the forces fighting for control over the production of space in these environments differ from the conventional relationships described in Lefebvre’s and Harvey’s works. Instead of a classic Marxist struggle between the proletariat and the bourgeoisie, urban villages present a tripartite relationship in which one actor, the village collective, acts as both dominator and dominated. They are simultaneously a victim of capitalist exploitation and a perpetrator of it, and through this role they subvert many of our critical understandings of urban socioeconomic positionality. Additionally, they do this while still under a system of collectivized ownership, further casting doubt on the proposed socialist solution advanced by both Lefebvre and Harvey.

In making my argument, I am not attempting to delegitimize these theories – rather, I intend to build on them by revealing their blind spots and what they fail to account for. I will construct my argument by first providing some historical context on urban villages and how they came to be. I will then describe what they look like now amidst the processes presently ongoing. Next, I will introduce the three main actors central to my analysis – the government, the villagers, and the migrants – all of whom have a different stake in urban villages and play a role in shaping the space. Then, I will dive a little deeper into the theoretical background of this paper by describing the arguments put forth by Lefebvre and Harvey. After all of this necessary contextualization, I will begin my analysis, examining how the dynamics present within urban villages contradict Lefebvre’s and Harveys’ theories, which are often used liberally and universally to apply to most contexts. I will explain how there are many elements of urban villages that are in line with what Lefebvre and Harvey have argued, but there are also many processes that either run counter to or complicate what the theorists predicted. Finally, I will describe the wider implications of my analysis on conventional spatial theories of urbanization and capitalism and their limitations.

I am also well aware that urban villages are not homogenous. Keeping in mind the high levels of variation amongst China’s urban villages, I will only be examining urban villages in Guangdong province – though I acknowledge that even within this province there is still a significant (though lesser) degree of variation.

II. Historical Background
To understand the development of urban villages, it is first necessary to understand the history of land ownership and land reform in China through the latter half of the 20th century. During the 1950s, Maoism was the dominant ideology in China, and as such the concept of land ownership was heavily shaped by Communist principles. Land was designated as urban land or rural land, each implying its own type of ownership. Urban land was nationalized and legally owned by municipal governments, and rural land was collectivized and jointly owned by the village (Wang & Wang, 2014). Collective ownership meant that the land was not owned by households or individuals, but instead by the commune itself, overseen by “a community body that is seen as the legitimate entity representing the interests of all its constituents.” (Yep, 2015, p. 535). In other words, at the village-level, a council had to be designated to serve as representatives of the community. They were charged with managing and coordinating the resources within the community, a responsibility that included allocating land and labor and setting redistribution rules, among other things. The resultant redistribution held these collectives together. Any goods
produced or revenue earned would go not to those who produced or earned it, but rather to these representative councils (termed ‘production brigades’), who would decide how much of the surplus should be distributed to each household. This gave everyone a shared stake in both production and the profits of production. This system, however, put a great deal of power in the hands of the brigades, creating a hierarchical relationship between themselves and other members of the village collective (Kan, 2016).

This system continued until the 1980s, when it was dismantled as the state pivoted to open up to the free market, bringing with it a policy of decollectivization. Production brigades were abolished, and individual households were allocated plots of land to produce on and profit from. Yet, despite these processes, the ownership of the land still remained in the hands of the village collective – it did not become individually owned, even as other types of private property began to accumulate. Brigades were replaced by ‘administrative villages’, localized units of rural administration which essentially came to serve the same function as the brigades. Thus, the notion of ‘collective property’ remained, and the rural land stayed in the hands of the village collective (Kan, 2016, p. 591).

In the same sense, post-economic liberalization, urban land also remained under the ownership of the state. Thus, the government had jurisdiction over how land use rights were transferred or leased to users (companies, individuals, other municipal governments) in exchange for payment (Song, 2007). The government was able to establish a market for private property via this process of leasing out blocks of land, which was crucial to the regime’s objective of bolstering the nation’s economy. This initiative went hand-in-hand with the state’s desire to grow its urban areas, jumpstarting a process of urbanization that quickly took off. Cities began rapidly expanding, stimulated by the government buying up the land surrounding metropolitan areas to construct new development after new development and accelerate urban growth (Geng et al, 2020). Economic activity became increasingly concentrated in these cities, fueling waves of migration that subsequently increased the demand for new developments, creating a positive feedback loop that encouraged the buying up of more and more of the adjacent land.

However, the state ran into a problem when it began infringing on land owned by the village collective. To continue their expansion, cities had to expropriate this land, buying it up from collectives to then lease and develop on the private market. But oftentimes collectives were unwilling to sell their land or wanted to negotiate higher sums. Due to the complex and poorly understood processes of land reform that accompanied decollectivization, it was unclear exactly what the land was valued at, and therefore compensation payment offers were arbitrary and unstandardized (Wang & Wang, 2014). As a result, governments would often requisition farmland (as this was generally cheaper to expropriate) and leave existing residential areas under the ownership of the collectives (Lin et al, 2011). This left small chunks of collective-owned land amidst large plots bought up by the state. For example, in Liede, a village in Guangzhou, the village retained only 50 hectares of reserved residential land after expropriation. As compensation, the village (collectively) received 450 million yuan for lost land and 380 million yuan for lost crops (Kan, 2016).

As cities continued to expand and more and more of the surrounding villages were swallowed up by this process, these still-collectively owned residential areas ended up at the centers of cities. Skyscrapers, gated communities, and commercial centers sprang up around them in areas that the state had privately developed, while these village enclaves – called *cheng zhong cun*, literally “village in a city” in Mandarin Chinese – followed their own independent development trajectory (Geng et al, 2020, p. 182). The resulting geography presents sets of dense,
poorly maintained, run-down neighborhoods of tightly packed apartments, surrounded by seas of glimmery high-rises and shiny new developments.

This process began several decades ago and continues to this day, as China’s major cities – now termed megacities – continue to grow. Guangdong province has achieved an urbanization level of 63%, a result of flourishing economic activity in its two megacities Guangzhou and Shenzhen (Wang & Wang, 2014). Consequently, these two cities also have a high concentration of urban villages – in 2018, Guangzhou was reported to host 272 urban villages, while Shenzhen in 2000 reported 241. The villages in Shenzhen are said to accommodate approximately 2.15 million people (Geng et al, 2020).

![Aerial view of Xiancun Village, in Guangzhou, China.](image1)

(Weng, 2016)

![Google Earth photo of Shipai Village, in Guangzhou, China.](image2)

(Geng et al, 2020)

_Figure 1: Aerial view of Xiancun Village, in Guangzhou, China._

_Figure 2: Google Earth photo of Shipai Village, in Guangzhou, China._
Urban villages are primarily composed of migrants and local villagers. The former will typically only spend a few years living in the village, while the latter are usually permanently settled. As a result, villagers are far more entrenched and able to participate in the village collectives that give them access to land ownership and use rights. Taking advantage of the popularity of their neighborhoods, they have learned to develop their houses (often illegally) and rent them out to incoming migrants needing homes. For these migrants, urban villages are often their first home upon moving to a city. Their central locations and relatively cheap prices make them appear enticing to migrants who prioritize accessibility and proximity to employment opportunities (Chung, 2017).

As more and more migrants settled in these urban villages, they developed a community network, thereby attracting more migrants and so on and so forth (Chung, 2017). Now, though local villagers possess vastly more social and financial capital, the number of migrants greatly outnumber their local counterparts. This relationship will be further elaborated on in later sections, but first I will provide a closer look into what urban villages look like on the ground.

Let us consider the case of Xiaocun village, an urban village in Guangzhou. Over the last twenty years, Xiaocun has seen its population swell from two thousand to over fifty thousand (Geng et al, 2020). Migrants account for 90% of the total population and are squeezed into only 390 houses total, spread over an area of 49,600 square meters (Chung, 2017). In some areas, the population density can reach up to 2400 persons per hectare (Lin et al, 2011). Other urban villages have similar stories.

Thus, these urban villages are incredibly overcrowded and congested. This, combined with poor maintenance and a lack of official oversight, means that residences are deteriorating with little upkeep, infrastructure (such as roads and sewers) is outdated, and public security issues run rampant (Yamaguchi & Shinya, n.d.). Facilities inside the residences are even worse. Examining the housing conditions inside urban villages in Shenzhen, Wang et al. notes:

37 per cent of migrants do not have exclusive use of a toilet, bathroom or kitchen; 35 per cent do not have exclusive use of a water tap; over 40 per cent do not have showers.
Moreover, even though a gas supply has become the norm in Shenzhen, many migrants still use coal as their main source of fuel. Some migrants put coal-fired stoves or gas cookers inside their bedrooms, which could be a fire hazard and an uncomfortable source of heat in the very hot summer. (Wang et al, 2010, p. 89)

In this sense, the material conditions of these urban villages are dismal, and this is especially apparent when juxtaposed with the glitzy new developments rising up around them. This fact also provides ample ammunition for local governments to attack these villages, citing health and safety hazards as the justification for requisitioning the land and developing it formally (Geng et al, 2020). This rhetoric is becoming more and more prevalent as the state begins to use terms like ‘urban renewal’ and ‘urban clean-up’ to legitimize their initiatives to commandeer, demolish, and rebuild urban villages. For the purposes of this paper, I will not delve too deeply into these proceedings (beyond discussing the general nature of negotiations currently taking place between collectives and municipal officials). Each local government’s treatment of each urban village is so inconsistent that attempting to identify overall trends would paint an erroneous picture of where and what redevelopment is actually occurring. I will instead stick to understanding urban villages as they are right now and leave the question of what is to happen to them going forward to other work.

III. The Three Actors

Next, it is necessary to elucidate the three main actors whose interactions compose the narrative I am constructing about spatial production in urban villages. These actors are the government, the villagers, and the migrants. The government’s actions and incentives are relatively straightforward. They function similarly to the state and/or the elite in many other cities, in that their primary incentive is to maximize the profitability of the land itself. When expropriating land, their objective is to pay as little as they can in compensation, and eventually resell the land to whichever private company is most likely to increase its value the most. They do not prioritize the lives or well-being of either the local villagers or the migrants, and only seek to acquire more land for redevelopment. They view urban villages as “unsightly and congested settlements that occupy premium land in the city.” (Kan, 2016, p. 596). In their eyes, urban villages are problem areas for two reasons. First of all, they occupy highly-desirable space and “waste” it, and second of all, their unseemliness may drive down the demand for surrounding developments. In this sense, the government, like the capitalists in conventional urbanization and gentrification literature, seeks to take advantage of the realization of the ‘rent gap’ underutilized under the current land use regime (Stein 2019; Kan 2016, 596).

This aspiration is, however, complicated by the unwillingness of village collectives to give up their land, and negotiations between these two actors add a layer of complexity to the dynamics within urban villages. The village collective coalition possesses a unique set of actions and incentives and represents the second actor central to our analysis. While these coalitions are made up of several different groups, they share the common trait that they are all indigenous to the village and have likely been for several generations. The land, therefore, has been passed down through families for decades, and it is likely that the relatives of present villagers were the peasants that originally participated in the village communes during the Mao era (Chung, 2017). Hence, most come from farming, working-class backgrounds, with their main asset being that they have a claim to the land they reside on. As the city expanded around them, most villagers stayed on these lands, even as the state began to push to buy it up. Many villagers resisted these efforts,
unhappy with the value of compensation payments or simply unwilling to leave their ancestral homes. Yet, seeing how high demand was for land they already owned, many also realized the lucrative financial opportunity that had presented itself (Kan, 2016).

They found that they could invest in their properties and develop them as rental units, renting them out to migrants flooding the cities and making large profits off of the rental income. Though the land was managed by the ‘administrative villages’, each household (through long-term local residency) already had a predetermined stake in it through the structure of collectivized ownership. Thus, this structure turned former peasants into quasi-shareholders, with the administrative village serving as central management. Shareholding worked as a distributive mechanism which pooled the rental revenue generated by each unit and converted it into shares. These shares were then distributed out to individuals and households in the form of dividend payments (Kan, 2016). These dividends cultivated a sense of mutual support and trust in the collective, as each shared a financial stake in its continued success. For some villagers, dividends from rent became their primary source of income, especially as many were undereducated and unable to obtain employment in the urban economy (Kan, 2016). In an effort to bolster the amount of rental income obtained, villagers began to further develop their properties, soon becoming quite a stable fixture in the residential real estate market. However, these developments often bordered on – or were blatantly – illegal, as they violated health and safety codes or construction regulations. In the hopes of raising rental income by stuffing more and more people into limited spaces, villagers extended frames of old homes or constructed entirely new buildings on-site. As long as there was more demand for housing (which, as these cities continued growing, there always was), villagers would keep building (Geng et al, 2020). Yet this enthusiasm for development did not extend to a willingness to maintain these residencies, leading directly to the overcrowded but shoddy conditions described earlier.

This process only reinforced the frustration of the state, which acknowledged that the continued financial success experienced by villagers as landlords would make them even less likely to sell their land, but also had a heightened incentive to acquire the land as settlements became more crowded and unsightly. They have, as a result, redoubled their efforts to expropriate urban village land, though the success of these efforts varies case-by-case (Crawford & Wu, 2014).

The third set of actors crucial to the spatial production of urban villages are the migrants, who make up the bulk of renters in these neighborhoods. It is difficult, of course, to make generalizations covering such a large group of people, as there is undoubtedly significant variation in the backgrounds, preferences, and motivations of those who fall under this category. That being said, previous literature has found that the majority of migrants move to a new city in pursuit of economic opportunities, often coming from rural areas in the central and western regions of the country and migrating to urban areas in the coastal regions (Goodkind & West 2002). They are often referred to as the “floating” population, or liudong renkou, due to high rates of residential and employment mobility and short settlement durations (Zhu, 2007, p. 65).

Much of migrant life is the product of household registration. The household registration system, or hukou, is another legacy of China’s socialist era, historically acting as a form of migration control to disincentivize individuals from permanently moving their place of residence. Essentially, the system provides individuals with a form of local citizenship: it registers one’s residence in one, and only one, region. Citizens are usually registered at their place of birth and must give up their registration if they are to move permanently outside of that locale and reregister elsewhere. However, an official reregistration and change of hukou is exceedingly difficult to
obtain. In addition, local permanent registration is necessary for obtaining many social benefits – without it, migrants are unable to access social services like public schools, state sector jobs, or welfare programs (Wu, 2004). Hence, though migration itself is legal, the barriers to social living conferred by the *hukou* system disadvantage migrants in whatever region they migrate to and isolate them from the native population.

Household registration is also the primary reason why so many migrants choose to live in urban villages despite poor conditions. Without *hukou*, migrants are barred from accessing low-cost public housing built and subsidized by the state. Additionally, lacking *hukou* creates barriers to finding decently-paid permanent employment, meaning that migrants cannot afford to find better housing on the formal commercial market either (Lin et al, 2011). Both of these factors, in combination with urban villages’ convenient locations, mean that urban villages are usually the most cost-effective – if not the only – option for the majority of migrants. In that sense, migrants are essentially forced to put up with the crowded, subpar living conditions put upon them by hostile and profiteering villagers, who see migrants as an entirely different class of people. Villagers are known for treating migrants poorly, looking down on them and excluding them from local social networks. Migrants have described the feeling of ‘otherness’ that permeates their life in urban villages, as indigenous residents barely acknowledge or make contact with them beyond standard landlord-tenant interactions (Chung, 2017, p. 2255). Many migrants cope with this by forming connections and communities amongst themselves, especially with others who have migrated from similar regions (Chung, 2017).

Thus, these three actors – the state, the villagers, and the migrants – constitute the forces working to shape urban villages. Their positionality in relation to one another is a direct result of the evolution of China’s social and economic policies over the last few decades, and their interactions shape the process of spatial production, as well as the product of that process. I will now dive into a theoretical analysis of these relationships.

**IV. Theoretical Background**

As we will be analyzing the case of Guangdong’s urban villages through the lens of Lefebvre’s and Harvey’s theories of spatial production, I will now address exactly what these theories consist of. We can understand Harvey’s theory of “the right to the city” as an extension of Lefebvre’s seminal work on understanding the production of space, and so I will present them as separate but connected concepts.

Lefebvre’s theory of spatial production is grounded in a Marxist conception of capitalism and class relations. He interprets space as serving three purposes: acting as a means of production, in that particular spatial organizations can increase productive forces; serving as an object of consumption, in that space itself is consumed for production; and functioning as a political instrument, in that it can be used by the state to control hierarchy and homogeneity (Lefebvre, 1979). In that sense, he sees space as not only supported by social relations, but also as both producing and being produced by social relations (Lefebvre, 1979). He posits that capitalism specifically has appropriated this process by creating an abstract space of domination wherein capitalism is and can be the only producer of space. This space is oppressive, conforming all within it to its own conceptualization of space as a tool to extract surplus value (Lefebvre, 1979). At the same time, the space produced by capitalism is contradictory and chaotic, necessarily giving rise to those that question the capitalist exploitation of space (Lefebvre, 1979).

Lefebvre uses this as a background to advance what he sees as a solution – a shift towards a socialist production of space. To him, socialist space implies the end of private property and the
state’s domination of space, and the reprioritization of use value of space over exchange value (Lefebvre, 1979). This socialist space must be managed by a collective, democratic base, and must abolish the system of private ownership of land and resources while still maintaining an individual’s right to space (Lefebvre, 1979). To get there, a fundamental transformation of our understanding of space is necessary. While difficult, this reorientation is crucial to eliminating the deleterious and exploitative effects of capitalist space.

This theorization of space as both a sociopolitical tool and product is given a more concrete application in Harvey’s piece, “The Right to the City”. He bases his argument on Lefebvre’s conception of space but ties it explicitly to processes of urbanization under capitalism. In his view, urbanization is a social and spatial process that is accelerated by capitalism, as both require the production and reproduction of surplus value to sustain themselves. Urbanization occurs as that surplus is mobilized, a process that can only be driven by capital’s determination to expand and coopt more resources in a zero-sum system of exchange (Harvey, 2008). To do this, capital has to gain command of the entire urban process, thus giving it the “right to the city”. At its most fundamental level, the right to the city “is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization.” (Harvey, 2008, p. 23). Capital, however, has made it such that the right to the city is stolen from all citizens, leaving capitalist forces the sole controllers of that collective power, and ergo the sole producers of urban space, able to shape it into whatever they desire. Within this process lies a system of ‘accumulation by dispossession’, wherein capitalists’ preferred form of urban development involves the systematic displacement of low-income populations by the state or the economic elite in order to extract value from their land (Harvey, 2008, p. 34). Thus, capital’s domination over urban space almost always involves a class dimension that privileges the elite over the poor, underprivileged, and marginalized.

Given this, he suggests a solution similar to the conclusion Lefebvre had come to. He advocates for the democratization of the right to the city; or, in other words, broad collective control over the production and utilization of the urban surplus that has heretofore only been controlled by the capitalist elite. He believes that once the worker and the common folk have reclaimed the right to the city, they will have the ability to redefine the city as they see fit, therefore breaking up the monopolistic power of capital (Harvey, 2008). In this world, urbanization can take on new forms and dimensions, and the dispossessed can reassert agency over their place in the city – something that they have long been denied.

V. Analysis
Understanding urban villages through the lens of Lefebvre’s and Harvey’s theories of spatial production will necessarily involve quite a bit of nuance. I will start by describing the features of urban villages that do fit into the conventional interpretations of space. Firstly, the character and impact of capital are consistent, in that capital prospers by coopting more and more space for itself. Urban villages exist due to capital’s continuous consumption of space, as the onset of capitalism catalyzed urban growth and caused cities to engulf more and more of the surrounding countryside. In “The Right to the City”, Harvey describes this process exactly, citing how capitalist production requires the attainment of more and more profitable terrains to absorb and appropriate for surplus production (Harvey, 2008). We see this process manifest in China as it does in many regions around the world, with urban sprawl continuing to infringe upon the lives of previously agrarian peoples.
As in many other regions, this process also often leads to large-scale displacement. Village lands bought off by the government are usually developed to house China’s nouveau-riche, a category that previous residents – peasants and migrants – seldom fall into. As a result, the selling of such lands leads to a diaspora where households are forced to find new housing, often away from communities they have been a part of for years. This process is even more difficult for migrants, who, due to their registration status, have a hard time finding alternative housing outside urban villages. They are forced to relocate farther away from their employment and may even have to move to another city due to the limited options available (Geng et al, 2020). This perfectly exemplifies Harvey’s idea of “accumulation by dispossession”, as valuable land is forcefully captured from lower-income populations who have long occupied the space. In his piece, Harvey even uses the PRC as an example of this process, describing how, “it is often populations on the rural margins who are displaced, illustrating the significance of Lefebvre’s argument…that the clear distinction which once existed between the urban and the rural is gradually fading into a set of porous spaces of uneven geographical development, under the hegemonic command of capital and the state.” (Harvey, 2008, p. 36). This quote accurately encapsulates how capitalism has corroded the stability of those living at the intersection of urban and rural.

What Harvey fails to include in this narrative, however, are the complex dynamics occurring under the surface. He describes how some of those displaced by the state are sent on their way with small compensation payments, while others are forcefully removed by brutal repression (Harvey, 2008). Yet he does not mention those who successfully lobby to stay – and end up becoming instruments and beneficiaries of capitalism themselves. This tension is the primary way in which urban villages diverge from Lefebvre’s and Harvey’s theories. Though the nature of capitalism is the same, the agents of capital are different. Lefebvre primarily framed the conflict over the control of urban spatial production as a Marxist class struggle, wherein the political and economic elite are positioned against the general public or the working class (Lefebvre, 1974). He draws a strong connection between the state and capitalism, in that the state has been a major player in “the maintenance and management of capitalist growth at all spatial scales.” (Brenner & Elden, 2009, p. 369). Harvey reinforces this idea, citing that the political and economic elite exert complete control over urban production at the expense of the public (Harvey, 2008). In other words, capitalist growth depends on state support, and simultaneously the state uses capitalism as an instrument of growth.

Yet, in the urban village case, while the state is in fact the main arbiter of capitalism, these efforts are emulated not only by the private sector developers with whom they contract (the ‘economic elite’) but by the working class itself. The village collectives, acting as landlords, dominate the vulnerable migrant population, essentially reproducing the same spatial dynamics propagated by the state on a smaller scale. Instead of seeing their urban village space as occupied by residents, the village collectives see it as a means of production in that it can produce surplus value for them to extract, and an object of consumption in that it can be consumed for that production. In that sense, they treat the space almost identically to how the state does. In fact, the very reason that many villagers refuse to sell their land is that they believe renting it out will be more profitable in the long term than a one-time compensation payment (Wang & Wang, 2014). These villagers are rent-seeking and acting capitalistically in every sense of the word, yet, as former peasants, they cannot be mistaken for a new ‘urban bourgeoisie’. As most are undereducated and unskilled, they share a majority of traits with the working class. They also occupy a unique position in that they are both exploited and exploiter; they are, on the one hand, being pushed off their own land by the state and private developers, but they also act abusively to
migrants and achieve power through this relationship. This dual dynamic is not even mentioned in Harvey’s piece, but it highlights the complexity of urban social and spatial relations. In occupying multiple positions at once, village collectives contradict the standard upper-class capitalist against lower-class worker framework put forward by the theories.

Additionally, the central solution advanced by Lefebvre and Harvey to counter the ills of capitalism is actualized in urban villages, yet still fails to achieve the objectives they outline. In their pieces, both authors argue for a shift towards a socialist urban space, wherein a democratic base owns control over the urban surplus and private ownership is abolished (Lefebvre, 1979; Harvey, 2008). This ideal of collectivized ownership is realized in urban villages, as all land is owned and managed by a collective made up of various shareholders. All households have a stake in the land, but none have sole ownership over any of it. Yet what we witness is not a harmonious society in which all receive an equal slice of the pie, but rather a system where even this collective ownership has been weaponized against those excluded from the collective. The power amassed by the ‘democratic base’ is leveraged to exploit those on the outside – the base has acquired “the right to the city” and has consciously chosen to recreate exactly what the state did before it. In that sense, many of the harmful effects of capitalism are not ameliorated by the presence of collective ownership.

This points to the simplicity and misplaced idealism with which Lefebvre and Harvey conceptualize the solution to the capitalist domination of space. Capitalism is far more deeply entrenched in our societies than what may be evident, and thus even if individual capitalist desires are curbed, the overall orientation of a society towards profit cannot easily be undone. Even those eager to share spoils with neighbors and community members may still seek profit-making opportunities that occur at the expense of others. This reveals something about the human spirit, which is at its heart preferential. Individuals discriminate, and though many may be willing to quell their own selfish desires to benefit those they feel a kinship with, this generosity does not necessarily extend to all members of society. The fact that this is true even in a country like China, where the culture heavily emphasizes communitarianism over individualism and capitalism is a relatively recent phenomenon, is deeply troubling for the efficacy of the proposed socialist solution.

That being said, this does not indicate that all hope is lost. Clearly, capitalism’s effect on attitudes towards profit accumulation is strong and very contagious. But this merely indicates that Lefebvre’s and Harvey’s solutions are oversimplified, not off base. They should be amended to account for the pervasiveness of capitalist thought and target the overall system instead of urban spaces as independent entities. The interconnectedness of spatial relations under capitalism precludes the possibility of a socialist community successfully operating outside of the capitalist system sans total isolation, and therefore social movements seeking to socialize one metropolis at a time will be unsustainable. There is also danger in regarding the ‘public’ as a monolith, and not accounting for the ways in which the relative positions of different groups can result in divergent behavior. Communities that thrive off of a strong affinity with each other often source loyalty from mutual characteristics that are not shared with the rest of the population, which, when combined with an unequal distribution of power, can create opportunities for ‘othering’ practices that may become exploitative. Thus, a reimagined socialist solution must account for all of these factors in its initial structural design, or there is a danger of it devolving into a replica of the very practices it was created to solve.

VI. Wider Ramifications
Given all of the above, the question then turns to what this may mean for our understanding of these theories of spatial production. The evidence above does not serve to discredit the importance of these theories, but it does prompt us to rethink our broader conceptual understandings of spatial relations. The reality of spatial existence is never as simple as the elite versus the people dichotomy that is often pointed to in the literature, and it is important to understand relationships within – and also with – space as multi-faceted and multi-positional. Space is relative and constantly changing, and one’s place within it shifts depending on who they are interacting with at any given time. In that sense, we cannot simply conceive of spatial power as flowing in one direction – from the powerful to the powerless – for the dynamics on the ground are often more complicated than that.

My argument also points out several limitations in the theories themselves. Often, these theories are regarded as universally applicable and explanatory. Yet there are several crucial elements of urban villages in China that they fail to capture. To understand these omittances, we must acknowledge that these theories were developed by Westerners, crafted with mostly Western spaces in mind. But the development of capitalism and urbanization in the West is not mirrored all over the world, and thus divergent trajectories should be expected in regions where it differs. The production of space is heavily influenced by historical legacies and cultural factors, and as such in many cases alternative frameworks will be necessary to truly understand how society interacts with the spaces it inhabits. Future work should examine how theories of spatial production can be amended and expanded to take into account these nuances, instead of taking Western characteristics as given and applying them to any and all contexts.

VII. Conclusions

In sum, this paper has analyzed urban villages in Guangdong, China, through the lens of Lefebvre’s theory of the production of space, and, relatedly, Harvey’s theory of the right to the city. In doing so, I have addressed several aspects of urban villages that the theories either take for granted or fail to take into account at all. This may shine a light on their limited applicability to non-Western contexts. That being said, there is still plenty of room for these theories to be adjusted to understand these non-Western realities, a process that I hope I have begun here. More work is needed, of course, to truly unpack how to marry these theories with complex realities. Crucial next steps involve identifying and analyzing urban phenomena occurring elsewhere that may present similar contradictions as China’s urban villages.
Notes:

Sexual Violence And Sex Trafficking: An Observation Of Developing International Law And Its Implementation

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ABSTRACT: Margot Walström, Special Representative of the UN Secretary-General on Sexual Violence defines sexual violence as a "way of demonstrating power and control. It inflicts fear on the whole community. And it is unfortunately a very effective, cheap and silent weapon with a long-lasting effect on every society." Despite the universal damage of sexual violence throughout history, international law did not begin to develop a response to such crimes until the 1990s. Worldwide fear and shame associated with atrocities of sexual violence, difficulty defining it across cultures, challenges to accurate data collection, and lack of collective action all contribute to the international community’s silence. This paper analyzes how sexual violence has been defined in international law through its integration into the international justice system: first, as torture by the International Criminal Tribunal for the Former Yugoslavia, and second, as genocide by the International Criminal Tribunals for Rwanda, and third, how the Rome Statute criminalized sexual violence in its establishment of the International Criminal Court. Additionally, this paper discusses how sex trafficking has been acknowledged by international law, primarily through the United Nations’ development of soft law. Finally, this essay examines how United Nations peacekeeping missions and other international institutions continually undermine the international community’s efforts to tackle sexual violence and trafficking.

Introduction
Margot Walström, Special Representative of the UN Secretary-General on Sexual Violence in Conflict, defines it best: "[Sexual violence] is a way of demonstrating power and control. It inflicts fear on the whole community. And it is unfortunately a very effective, cheap and silent weapon with a long-lasting effect on every society." Despite the universal damage of sexual violence throughout history, international law did not begin to develop a response to such crimes until the 1990s. Worldwide fear and shame associated with atrocities of sexual violence, difficulty defining it across cultures, challenges to accurate data collection, and lack of collective action all contribute to the international community’s silence. Nevertheless, state actors and international organizations have taken steps to acknowledge sexual violence as a crime against humanity through meticulous integration into case law of ad hoc tribunals, soft law, and foundations for enforcement mechanisms. All the while, the number of victims from developing and developed nations alike continues to rise.

This paper analyzes how sexual violence has been defined in international law through its integration into the international justice system: first, as torture by the International Criminal
Tribunal for the Former Yugoslavia, and second, as genocide by the International Criminal Tribunals for Rwanda, and third, how the Rome Statute criminalized sexual violence in its establishment of the International Criminal Court. Additionally, this paper discusses how sex trafficking has been acknowledged by international law, primarily through the United Nations’ development of soft law. Finally, this essay examines how United Nations peacekeeping missions and other international institutions continually undermine the international community’s efforts to tackle sexual violence and trafficking.

International law generally refers to the public law which governs relations between independent states, the operations of international institutions, and how states treat individuals, corporations, or other private entities. Although international law recognizes states as sovereign actors, international institutions and international tribunals can create “binding” law, although individual states accept a large portion of international law as self-enforcing norms. These norms shift over time if the majority of states change their views on a certain issue. For example, over the course of several centuries, states shifted from accepting slavery to considering it a serious violation of international law. The primary source of enforcement for international law comes from the pressure independent states place on one another to maintain international stability. Although states often break international law, states recognize the benefits they receive from a coherent international system. The international institutions that make up this system provide global solutions by creating a common standard, minimizing the incentive to free riding, providing international cooperation, and establishing enforcement mechanisms. For this reason, states accept enforcement from bodies such as the UN Security Council and the International Criminal Court because these institutions provide a source of the international cooperation and stability independent states otherwise cannot accomplish.

Due to a long cumulation of feminist pressure, in 2000, the UN Security Council adopted the landmark Resolution 1325, formally recognizing gender-based violence, especially sexual violence, in the context of war. A later resolution adopted in 2008, UNSC Resolution 1820, went even further to clarify “rape and other forms of sexual violence can constitute a war crime, a crime against humanity, or a constitutive act with respect to genocide.” which made the additional request of the Security General, “to develop and implement appropriate training programs for all peacekeeping and humanitarian personnel deployed by the United Nations.” This transition shows clear progress in the acknowledgement of sexual violence as a war crime and efforts by the UN to self-regulate its own perpetration of such crimes; nevertheless, the war against sexual violence and trafficking is far from won. The recognition of these crimes, while substantial, does not translate easily into enforceable mechanisms, so countless victims have yet to reap the benefits of the progress the international community has made.

Defining Sexual Violence in International Law

Victims and their advocates have demanded increased attention to sexual violence as a war crime for the last three decades, yet the international community has been traditionally apathetic to these crimes. The international community responded with silence to crimes of a sexual nature before the establishment of the International Criminal Tribunals for the Former Yugoslavia and Rwanda. Furthermore, the creation of the Geneva Conventions and their Additional Protocols gave little consideration to these crimes. The case law of these tribunals and subsequent ad hoc tribunals of a similar nature continue to establish the characterization of sexual violence as a legitimate human rights violation. The primary influence of these tribunals in relation to sexual
Sexual Violence and Sex Trafficking

Sexual violence has been through a process of establishing precedent which results in treaty-making, affecting later decisions.

Although this process has been a relatively slow one, in general, the few norms, that are accepted by the international community and that have graduated to the status of jus cogens, become legally binding and enforceable under international law. For example, the decisions of the ICTY and ICTR resulted in provisions to the Rome Statute and decisions made in the Special Court for Sierra Leone. This accumulation of international prosecution establishes a “norms cascade” which builds the foundation for the illegality of rape and sex trafficking. Crimes of jus cogens status don’t require ratification of a treaty, but rather crimes can be prosecuted by any state on the basis of universal jurisdiction. With the codification of the Rome Statute in 1998, the international community groundbreakingly criminalized the acts of sex trafficking, sexual violence, and forced pregnancy clearly advancing this “norms cascade.” With continued attention and acceptance of sexual violence as an international crime, these crimes receive the same status as violations such as genocide, crimes against humanity, slavery and torture.

Rape Prosecuted as Torture

Historically not recognized as a war crime, opposing sides often viewed sexual violence as simply a misfortunate consequence of war. Therefore, to achieve recognition in international law, sexual violence was first attached to pre-established international crimes. As of now, the International Criminal Tribunal for the Former Yugoslavia, the International Criminal Tribunal for Rwanda, as well as the International Criminal Court have successfully integrated sexual violence into the definition of war crimes, officially establishing jus cogens status. Yet, the first acknowledgment of sexual violence by the ICTY had to be made by characterizing it as a mechanism of torture. The Tribunal relied primarily on the UN Torture Convention and its definition:

The 1984 UN Torture Convention defines torture as any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person, information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.

The ICTY emphasized the importance of specifying what qualified as torture and the definition was revised to include the following:

(i) This act or omission must be intentional; (ii) It must aim at obtaining information or a confession, or at punishing, intimidating, humiliating or coercing the victim or a third person, or at discriminating, on any ground, against the victim or a third person; (iii) It must be linked to an armed conflict; and (iv) At least one of the persons involved must be a public official or must act at any rate act in non-private capacity, e.g. as a de facto organ of a State or any other authority-wielding entity.

This revision clarifies the act of torture as first, intentional and second, linked to the will of a public official or perpetrated on account of non-private persons. This clarification allows the crime to
supersede domestic jurisdiction and be viewed as an international crime committed by or in association with a state, thus providing ICTY jurisdiction. At that time, the Tribunal realized the prosecution of rape as torture had far more basis in international law, thus it expanded the definition of torture to include rape rather than prosecute it independently.

The ICTY notably considered rape as torture during the Čelebići Trial Judgment. In the prosecution of one of the deputy commanders of the Čelebići prison camp, Delalic was charged under Articles 2(b) and 3. The Trial Chamber found that Delalic raped his victim in an effort to intimidate her into revealing information about her husband, to punish her on account of her husband's actions, and to instill fear and helplessness. In this case, the ICTY relied specifically on the 1992 Report by the Special Rapporteur on Torture presented to the Commission on Human Rights where the Trial Chamber described “the rape of any person to be a despicable act which strikes at the very core of human dignity and physical integrity.” With these conclusions the Trial Chamber finally attested to the serious repercussions of rape and sexual violence, solidifying its validity in the international law. Additionally, the Tribunal referred to the case law of its counterpart in Rwanda and its Akayesu decision discussed further later on. The prosecution of this particular rape as torture, relied on proof that the defendant’s sexual violence against the victim was fully motivated by “obtaining information or a confession, or at punishing, intimidating, humiliating or coercing the victim or a third person, or at discriminating, on any ground, against the victim or a third person.” In addition, the Tribunal found in under the United Nations Special Rapporteur on Contemporary Forms of Slavery, Systematic Rape, Sexual Slavery and Slavery-like Practices during Armed Conflict, “the discrimination prong of the definition of torture in the Torture Convention provides an additional basis for prosecuting rape and sexual violence as torture.” Further, the “violence inflicted upon her (namely rape) was due to the fact that she was a woman;” this form of discrimination comprises a prohibited purpose for the offense of torture. Thus, the Trial Chamber accounts for Delalic’s rape as torture by intimidation, punishment, and discrimination among other reasons. At the time of the case, no official “checklist” for offenses of rape existed, so the ICTY relied on the UN Special Rapporteur on Torture to establish what acts might qualify. In this way, the Court constructed its own basis to judge the prosecution of rape as torture by “special procedures,” provided by the UN Torture Statute, the UN Special Rapporteur on Torture, and the UN Special Rapporteur on Contemporary Forms of Slavery, Systematic Rape, Sexual Slavery and Slavery-like Practices during Armed Conflict, and other case precedent.

Rape Prosecuted as Genocide

More recently international criminal law has also prosecuted rape as genocide under the Convention on the Prevention and Punishment of the Crime of Genocide. The international community took note of ICTR’s unique approach to incorporating international human rights provisions in criminal trials, especially in the Prosecutor v. Jean-Paul Akayesu case. This case represented the first conviction of sexual violence in the history of international law as a crime against humanity or genocide. Although the original indictments did not include rape charges, prosecutors amended the complaint due to criticism from the New York-based International Women’s Human Rights Law Clinic; the Center for Constitutional Rights; and Navanethem Pillay, a female judge from South Africa; among other activists. Witness accounts of horrific widespread sexual violence, including rape with foreign objects, gang rape, forced miscarriage, and forced prostitution strongly backed these efforts.
Lacking previous relevant provisions, the ICTR relied primarily on the UN Genocide Convention of 1948 and its travaux préparatoires. Enumerated in Article 2 of the Statute, the Tribunal decided that the \textit{actus reus} of the crime comprised offenses relevant to this case.\textsuperscript{26} According the 1948 Genocide Convention, Article II, genocide is:

\begin{quote}
\ldots\textit{any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such:}

(a) killing members of the group;
(b) causing serious bodily harm or mental harm to members of the group;
(c) deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part;
(d) imposing measures intended to prevent births within the group;
(e) forcibly transferring children of the group to another group. \textsuperscript{27}
\end{quote}

“The \textit{mens rea} of the crime, which makes the crime especially difficult to prove, is a specific intent to ‘wholly or partly destroy a national, ethnical, racial, or religious group.’” \textsuperscript{28} Consequently, similar to the ICTY in the Čelebići case, the proof of intent presents a roadblock for the prosecution in Rwanda.\textsuperscript{29}

After the application of genocide to the case, the Court focused on defining sexual violence within genocidal activity specifically in regard to the Akayesu case.\textsuperscript{30} The ICTR found that acts of sexual violence constitute genocide:

\begin{quote}
in the same way as any other act as long as they were committed with the specific intent to destroy, in whole or in part, a particular group, targeted as such…Sexual violence was an integral part of the process of destruction, specifically targeting Tutsi women and specifically contributing to their destruction and to the destruction of the Tutsi group as a whole…This sexualized representation of ethnic identity graphically illustrates that Tutsi women were subjected to sexual violence because they were Tutsi. Sexual violence was a step in the process of destruction of the Tutsi group—destruction of the spirit, of the will to live, and of life itself.\textsuperscript{31}
\end{quote}

The court emphasizes the destructive nature of this sexual violence against Tutsi women as being the pure motive of the sexual violence perpetrated and therefore within the definition of genocide as “a specific intent to destroy, in whole or in part.”\textsuperscript{32} Marochkin notes that when the ICTR decided what constitutes “serious bodily harm,” the emphasized acts of sexual violence and rape fully qualified.\textsuperscript{33} This officially included rape and sexual violence afflicted against Tutsi women by Akayesu on account of the intent behind the systematic rape, the constitution of rape as “serious bodily harm,” and the rape’s “destructive” nature.

In \textit{Prosecutor v. Musema}, the Chamber discussed offenses of sexual violence that prevented births of a victimized group.\textsuperscript{34} For example, sexual mutilation, forced sterilization, forced birth control, forced separation of males and females, and prohibition of marriages, all sought to limit new births of the victims’ ethnicity and therefore fell within the crime of genocide. The Court clarified that in a patriarchal Rwandan society, the identity of the father determines group membership.\textsuperscript{35} An example of a measure intended to prevent births within a group is the case where, during rape, a woman of the said group is deliberately impregnated by a man of another group, with the intent to have her give birth to a child who will consequently not belong to its mother's group.” \textsuperscript{36} Hence, in the case of the atrocities committed against the Tutsis, Hutu rapists,
such as Musema or Akayesu, could be motivated by the fact that consequential births would result in more children identified as Hutu, at least within the context of Rwanda culture. Thus, both Tribunals creatively addressed issues of sexual violence and rape by categorizing these offenses under the more explicit and widely recognized crimes that were easily prosecuted war crimes of torture and genocide. Both the ICTY and the ICTR found themselves incredibly limited by outdated, abstract, or nonexistent sources of international law. After interpreting the limited number of relevant Statutes, the Tribunals referred to a range of pre-existing soft law, such as treaties on human rights, conclusions from previous human rights cases, and other human rights bodies. From which, the Tribunals creatively filled the gaps in the present international law to adequately address rape as a distinguishable and punishable international crime.

While the Rome Statute adopts similar language of sexual violence and trafficking from both the ITCY and ICTR Statutes, its efforts to criminalize gender-based violence supersedes its predecessors. The original purpose behind the creation of the ICC was to simply codify existing international law, but nearly exclusive male participation in the establishment of international law up to that point resulted in a lack of adequate attention to women’s issues. Due to pressure from international feminist non-profit organizations, female-friendly language was added to the draft of the Rome Statute to include specific forms of gender-based violence, prosecutive and investigative mechanisms, and fair representation of women within ICC staff. This pressure resulted in the specific recognition of gender-based violence as crime against humanity in Article 7 and as war crimes under Article 8. The Rome Statute listed rape as both a crime against humanity and a war crime, allowing the prosecution more flexibility. A war crime is easier to prove than a crime against humanity, my considering the prosecution only need to prove the rape was part of a “plan or policy,” rather than a “widespread or systematic attack.” Unfortunately, while the inclusion of these articles is monumental, the ICC has had limited success in the investigation and prosecution of these crimes. The ICC’s first conviction of sexual slavery incredibly did not occur until July 2019. As the Court’s fourth conviction overall, Ntaganda was unanimously sentenced to 30 years in prison.

Defining Sex Trafficking in International Law

Modern slavery works similarly to other forms of trafficking of drugs or arms, except these traffickers transport individuals. Such individuals, in search of better opportunities especially when they hope to cross into better developed countries such as the United States, may be ensnared by trafficking institutions. Involuntary trafficking on the other hand, entails the abduction of individuals transported to a foreign country and forced into various forms of servitude including sex work. The overlap between issues of migration, modern slavery, and smuggling consequently complicate both the identifying and criminalizing of sex trafficking on the whole. Although apparent discrepancies exist in how different governments, academics, and activists characterize sex trafficking, both voluntary and involuntary modes entail transportation of individuals across borders for the purpose of exploiting their labor and therefore, encompass trafficking.

Although sex trafficking was widely recognized as an issue well before the 21st century, the lack of a formal definition hindered any effort of the international community to combat it. This definition was finally established in 2000 with the UN Protocol to Prevent, Suppress, and Punish Trafficking in Persons, Especially Women and Children (Palermo Protocol) in Article 3, Section (a):
"Trafficking in persons" shall mean the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude or the removal of organs;”

Later reinforced in Article 6, the Protocol obligates states to criminalize trafficking as defined.50

The Palermo Protocol represented the first contemporary initiative to combat sex trafficking at the international level.51 Of the 192 states of the UN, 172 have signed and ratified the Protocol, none of which included reservations specifically regarding the definition provided in Article 3.52 Article 5 obligates states to "adopt such legislative and other measures as may be necessary to establish as criminal offences the conduct set forth in Article 3 of this Protocol." 53 Yet despite this mandatory measure, states failed to criminalize sex trafficking by defining it to a limited scope of conduct.54 For example, the US State Department’s narrow definition exemplifies this failure, decisively ignoring extra-legal migration.55 In this way, although many states were quick to adopt the Protocol into domestic law, the resulting domestic law applied to more limited circumstances than what the international law had originally called for. States additionally lacked the readiness to actually enforce even the inadequate law they adopted.56

This absence of a clear definition in domestic criminal law exists in multiple states, despite their being obligated to incorporate such under Article 5.57 For this reason, the United Nations has installed several mechanisms: under the UN Transnational Organized Crime Convention and its Protocols, the Conference of the Parties of the United Nations Convention on Transnational Organized Crime (Conference of the Parties) to monitor states’ compliance.58 In 2006, the Conference of Parties underwent a survey of definitions provided by obligated states.59 The survey asked how states defined trafficking in persons in their domestic law in accordance with Article 3.60 Many states’ responses claimed to be in full compliance with the definition provided in Article 3 and obligations in Article 5, but basic analysis of their domestic laws’ definition of human trafficking showed clear noncompliance.61 Nonetheless, some states, such as Turkey, copied the definition of human trafficking from Article 3 verbatim into their own domestic law, but these states are in the minority.62 According to Dempsey, Hoyle, and Bosworth, gaps could be due to a state’s lack of technical expertise in drafting effective criminal codes, the absence of a competent international enforcement mechanism, pressure from economic crisis, or possibly, the inherent vagueness of the Article 3 definition.63 Whatever cause creates gaps in the states’ definitions, other actors can interfere, effectively making change more likely. In this case, as the authoritative regulatory party, the Conference of Parties has the responsibility for holding noncompliant states accountable.64 If the Conference of Parties drew enough attention to states’ neglect of human trafficking, states would eventually adapt in order to protect their reputations.65

Aside from narrowing the definition of human trafficking, states hesitate to collect data on sex trafficking within their territories.66 Due to the intimate and traumatic nature of the crime, sex trafficking, already extremely underreported, results in often inaccurate data. Due to public appearances, states want to keep hidden even those underreported numbers.67 Still aside from
acknowledgement of United Nations Convention against Transnational Organized Crime and the Protocols Thereto, the US made additional efforts to regulate foreign states’ efforts to combat human trafficking. The US Trafficking Victims Protection Act mandated that the US State Department report efforts of foreign states to regulate trafficking. This mandate has influence over states who rely on US foreign aid, and for this reason, has proven in some ways more effective than international law established by the UN. Although representing significant progress in providing accountability, the US TVPA encourages dependent states to underreport the severity of trafficking within their borders to preserve humanitarian and military aid from the US. Ironically, the US did not evaluate its own practices until a decade after the US TVPA was passed. When it did finally perform self-evaluation, the US concluded itself a leading crusader against human trafficking on the world stage. This contradiction presents a conflict of interest: how can the international community avoid global super powers, such as the US, from acting as an international police force and producing biased promotions of their own efforts? This conflict only further shows the politicized nature of human trafficking reporting and the ensuing possibility of corruption. Therefore, while both international law and domestic law have made notable efforts to respond to human trafficking, both ultimately fall short of collecting dependable data and painting a representative portrait of illegal trafficking practices abroad. Thus, despite the clear establishment of laws against trafficking, these laws largely lack enforcement priorities.

Subsequently, the lack of protection and assistance of victims of trafficking weakens international law. In the rare instances of successful prosecution, human traffickers are usually prosecuted under immigration violations, not under human rights abuse, resulting in little to no acknowledgement of victims. Because hard international law encroaches on state sovereignty, the international sphere has primarily implemented soft law to aid victims. For example, the Palermo Protocol and other efforts by the UN largely support this prosecution-focused approach, but use vague language regarding assistance and pathways for justice of victims. In addition, in 2002, the UN High Commissioner for Human Rights adopted the Recommended Principles and Guidelines on Human Rights and Human Trafficking. Although soft law, the Recommended Principles and Guidelines deter policies that unfairly prosecute trafficking victims as illegal migrants. Even if successful, scholars and policy makers understand that focusing on punishment would not effectively deter sex trafficking, thus activists favor a more proactive human rights approach centered on protecting victims.

Activists in the drafting of the Rome Statute played a key role in establishing protection for witnesses and victims of sexual violence and trafficking, primarily in Article 65. The first case in the ICTY, Prosecutor v. Tadic, should have been easily won. Unfortunately, the prosecution was forced to drop rape charges against Tadic because the last witness refused to testify under threats to herself and family. Lehr-Lehnardt argues that this case likely influenced the drafters of the Rome Statute to include witness anonymity and protection until a witness protection plan can be enacted. The Rome Statute also created a Victims and Witnesses Unit specifically tasked to provide protection, counseling for trauma caused by sexual violence, and other necessary assistance. In summary, the Rome Statute takes progressive steps to recognize the needs of witnesses and victims in the ICC that previously caused prosecution failure in the ICTY. Furthermore, the Rome Statute took specific caution to identify the trafficking of women and children as a crime against humanity and therefore highly prosecutable in the ICC.

Development of International Law with Regard to Peacekeeping Operations

Hannah Kate Albach
Although the international community has made a notable effort to address sex trafficking through the development of law, its institutions simultaneously escalate human trafficking issues as exemplified by UN peacekeeping missions. For the past three decades, victims continually bring allegations against peacekeepers for sexual misconduct against the people they were sent to protect. Dating back to the early 1990s, the first accusations to gain international attention originated from Cambodia and Somalia, shortly followed by similar allegations in Sierra Leone in 2003 and the Democratic Republic of the Congo in 2004. Many more allegations of sexual abuse of humanitarian aid workers have surfaced since the early 2000s. This year sex scandals erupted in the Democratic Republic of Congo where humanitarian workers were sent in response to the Ebola crisis and in Uganda where aid workers respond to food shortages due to extreme drought throughout the region. Aside from allegations brought specifically against UN peacekeepers, in general, peacekeeping missions have been instrumental in reinforcing local trafficking systems. Shortly after the Cold War, the United Nations took on more ambitious peacekeeping missions, enlisting forces of less experienced and less capable states; ergo, questions arose of mission effectiveness and, all too often, the conduct of the peacekeepers involved. Peacekeeping mission units are assembled from a wide range of cultures and ideologies. This reality alone makes managing and communicating accurately within units challenging but preventing misconduct even more difficult.

Therefore, as state governments and UN bureaucrats fight for the legitimacy of global anti-trafficking policy, such as the Palermo Protocol, corrupt UN peacekeepers in crisis zones around the globe undermine their efforts. The first specific effort made by the UN to recognize the misconduct of peacekeepers didn’t occur until 2005 with the release of the Zeid Report. The report found that in the DRC “typical forms of sexual exploitation and abuse...included the exchange of sex for money, food, or jobs; what some young girls interviewed by the commission described as ‘rape disguised as prostitution.’” Similar reports “from missions in Bosnia and Herzegovina, Cambodia, Kosovo, and Timor-Leste in the 1990s and in West Africa in the early 2000s, and called for uniform, binding standards of conduct for peacekeepers.”

Trafficking crime thrives within well-developed states, such as the US, despite genuine preventative measures taken to stamp out its existence. In less-developed states, human trafficking has substantially fewer hoops to jump through, already embedded into local communities in crisis well before the arrival of peacekeeping operations. Nevertheless, the mere presence of a large number of male peacekeepers further drives the local sex industry. Unchecked, operations heighten demand for women, resulting in the increased establishment of brothels, strip clubs, and bars. Furthermore, through their inherent authority, peacekeepers contribute to systematic “transactional sex,” trading much-needed resources for sex with locals. Since peacekeeping missions were first introduced in 1957, demand for humanitarian intervention has increased, leading to less vetting. When forces became increasingly diversified, accountability decreased, driving up illegal activity.

Slowed by collective action problems, the development of international law in response to these atrocities has rendered little progress in the realistic prevention of misconduct by UN peacekeepers. With the Zeid Report in 2005, the UN made an official effort to combat the sexual misconduct of peacekeepers. Prior to the release of the Zeid Report, the UN Department of Peacekeeping Operations acknowledged there was strong evidence of peacekeeper missions involvement in trafficking, with the release of a policy paper in 2004. This paper, “Human Trafficking and United Nations Peacekeeping,” outlined two main objectives: (a) in support of the Secretary General’s “zero-tolerance” policy proposal, the UN will establish a system by which
peacekeeping forces will be monitored, investigated, and punished on account of involvement in trafficking practices, and (b) upon request, have the mechanisms capable of supporting national efforts made by international member states in curbing human trafficking, especially within post-conflict states.\textsuperscript{97} Since this proposal, limited advances have been made in terms of enacting these proposals, but the UN successfully created the Conduct and Discipline Unit within the Department of Peace Operations in 2005 and the deployment of Conduct and Discipline Teams to DPKO’s beginning in 2007.\textsuperscript{98} Such measures secured the UN’s responsibility to conduct training, spread awareness, and collect allegations of misconduct.\textsuperscript{99} Additionally, other operations, such as the UN Office of Internal Oversight Services, have offices in a few of the most abuse-prone PKO host countries, which facilitate investigations into peacekeeping operations independent of the DPKO.\textsuperscript{100} Yet, these regulatory mechanisms lack effectiveness without the additional action to vet peacekeepers.\textsuperscript{101} The source of peacekeepers’ misconduct is their functional immunity, which protects individuals when currently engaging in mission efforts.\textsuperscript{102} The Memorandum of Understanding (MoU), an agreement between a troop-contributing country (TCC) and the UN, essentially dictates only TCCs have the power to prosecute military members of its nationality for crimes committed in the context of a peacekeeping mission (usually internally, within the TCC’s military justice system). These peacekeepers are never subject to the host state’s jurisdiction, but rather the military justice systems of the TCC, even for serious allegations.\textsuperscript{103} Automatically, peacekeepers' cases fall within the jurisdiction of the domestic court from which they originate. On the other hand, the UN Security Council Resolution 2272 (2016) gives the Secretary-General the power to repatriate military and form police units “when there is credible evidence of widespread or systematic sexual exploitation and abuse by that unit,” and “requests the Secretary-General to repatriate all military or formed police units of TCCs that systematically fail their accountability obligations, from the country where the allegations have arisen.”\textsuperscript{104} Jennings clarifies that immunity is not waived in these cases, but even if the Secretary-General exercises authority to repatriate units, the peacekeepers involved are still only subject to the authority of their home country, not the host country.\textsuperscript{105}

While the Rome Statute takes a clear stance on trafficking and sexual violence by an perpetrator, due to its “complementary” jurisdiction, the ICC faces similar blocks to the UN.\textsuperscript{106} In order for ICC jurisdiction to apply, a peacekeeper must first commit an international war crime, genocide, or crime against humanity.\textsuperscript{107} Second, the TCC must be determined “unwilling” to adequately investigate and prosecute this crime in a “meaningful manner and without good reason.”\textsuperscript{108} Ultimately, the ICC was created to prosecute those guilty of “the most serious crimes of concern to the international community as a whole.”\textsuperscript{109} Arguably, the ICC should be reserved for large scale international crime of which the transgressions of peacekeepers would not usually qualify, except in extreme cases.\textsuperscript{110} Thus, the ICC may not represent the path to prosecution of these crimes. Since the states in which these crimes occur usually have ineffective or polluted justice systems, prosecution becomes the responsibility of the domestic courts of criminal peacekeepers.

As a preventative measure, the counterintuitive activities available to peacekeepers where they are stationed could be replaced by extracurriculars that are beneficial to community development.\textsuperscript{111} The UN outlined multiple crime prevention strategies in crisis zones: the social development approach which promotes prosocial behavior through social, economic, health and educational measures; community-based prevention, which focuses on altering the conditions in communities that encourage victimization; situational crime prevention aimed at reducing crime opportunity; and reintegration and assistance programs.\textsuperscript{112} All of these indirectly reduce the sex
trafficking systems built into the societies before the peacekeepers arrive. Cumulatively, these mechanisms work to not only hold peacekeepers accountable, but prevent misconduct before it occurs.

Before any opposition from conflict-ridden states would be unheard of, but with a growing transnational advocacy network, this opposition has a much louder voice. This voice continues to draw attention to allegations against peacekeepers, especially when they detail the atrocities of sexual violence and trafficking. This rising pressure undoubtedly forces the international community to turn inward and deal with the sexual violence its institutions protect and promote.

Conclusion

Throughout this paper, one can observe that although ad hoc tribunals, such as the ICTY and ICTR, have successfully integrated the prosecution of sexual violence as a war crime, the international community refrained from establishing hard law on the issue of sexual violence and sex trafficking. While the language of the Rome Statute has allowed the prosecution of sexual violence and human trafficking a much clearer path to conviction, both of these crimes have already been largely recognized under customary international law, resulting in little to no implementation in the ICC. The established soft law can be easily manipulated by perpetrators, such as UN peacekeepers who commit sexual misconduct in crisis zones. Although genuine efforts have been made by policymakers to combat sexual violence and sex trafficking, the lack of hard law and adequate enforcement mechanisms limit real change both externally across the globe and internally by their own peacekeeping operations and humanitarian personnel.

Reports made by the UN Secretary General on women, peace, and security, first started in 2002, upon request of the UNSC resolution 1325. This resolution marked a formal recognition by the UNSC to assess the impact of war conflict on gender-based violence, especially in regard to sexual violence. In 2002, the Secretary General reported that in times of war, “women and girls are vulnerable to all forms of violence, in particular sexual violence and exploitation, including torture, rape, mass rape, forced pregnancy, sexual slavery, enforced prostitution and trafficking.” Since 2002, the Secretary General has published 34 reports, establishing a steady increase in measures taken by the UN to combat sexual violence. The report from November 24, 2010, showed progress implemented over a 2-year span through Resolutions 1820 and 1888 with “measures to improve the collection of information and recommendations aimed at enhanced response.” In the latest report, issued June 3, the Secretary General recognizes the year of 2020 as a pivotal moment in the fight against sexual violence, marking the 25th anniversary of the adoption of the resolution 1325.

As summarized by the Secretary General:

Despite important progress on the policy and operational fronts, we face an increasingly complex global security environment in which sexual violence remains a cruel tactic of war, torture, terror and political repression, and a brutally effective tool of displacement and dehumanization. We have yet to adequately invest in tackling the structural root causes that drive and perpetuate this violence, including gender inequality, which is exacerbated by conflict and militarization. Survivor-centred, rights-based response aims to create a safe and participatory environment, including through contextualized solutions that build resilience and address the diverse experiences of all survivors. This approach is critical to ensuring that no one is left behind or excluded from the dividends of peace and development.
This statement indicates both the difficult path ahead, and the adoption of a new approach: the proactive, victims-centered method advocated by Dinan and other activists. This paper gives an account of the development of policy in regard to sexual violence and the failure of the international community to adequately report and prosecute such crimes. Yet, as the Secretary General notes, to adequately solve the issue of sexual violence and sex trafficking, the international community must attack the root from which these crimes stem, gender inequality. This inequality has orchestrated every transgression taken against women on account of their gender and continues to influence even the most well-developed nations where women continue to fight for their rights. In reality, international law developed in regard to sexual violence cannot function fully until gender inequality is truly eradicated, a development that could take centuries. In the meantime, the international community can take advantage of its influence, prosecuting the few cases of sexual violence within its jurisdiction, and establishing enforcement mechanisms which effectively apply pressure to the entrenched systems of rape and sex trafficking.
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Sexual Violence and Sex Trafficking

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Weakening of the Nation-State by Climate Change: Water Weaponization by ISIL

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ABSTRACT: Climate change is quickly becoming one of the biggest threats faced by the international community and has the capacity to greatly impact global security. The relationship between climate change and conflict is still unraveling; however, worsening climatic events have contributed to political instability around the world. As climate change implications become more apparent, water is less abundant due to worsening droughts and less precipitation, allowing it to become a target for groups seeking to control territory or populations. This paper examines the impact of climate change in shifting the power dynamic between states and violent non-state actors within their borders. More specifically, focusing on the use of water weaponization by the Islamic State of Iraq and the Levant (ISIL). The water weaponization of ISIL in Iraq and Syria shows the ability of water resources to be manipulated in a water scarce and politically unstable environment to strengthen the role of violent non-state actors. This research creates a chronology of water weaponization to track acts of water weaponization by ISIL from 2012, as they gained power in Iraq and Syria, until 2019 following the ‘defeat’ of their caliphate. Succeeding the chronology, acts of water weaponization are tracked using the Institute for the Study of War’s ISIS Sanctuary maps and Situation Reports to find the connection between acts of water weaponization and the strength of their caliphate through territory held. Through identifying fourteen water weaponization acts by ISIL from 2012-2019, a connection is found between the acquisition of a water resource, or an attack weaponizing water, and the territorial shifts of the caliphate over time. In doing so, this research hopes to contribute to a better understanding of the relationship between climate change and conflict connected to future security and counterterrorism measures to combat climate related threats.

Introduction
As the effects of climate change become more visible, there is intensifying discussion of the nexus between climate change and conflict. In 2014, the International Panel on Climate Change (IPCC) dedicated a report, the first of its kind, addressing the human security dimensions of climate change. Increased droughts in arid and semi-arid regions are one of the most frequent ways in which climate change might increase conflict, one of the most affected regions being the Middle East. The Middle East has experienced ten out of twelve of its’ driest winters since 1902 within the last 20 years, with climate change being one of the key factors for this increase in drying. In relation to this prediction, this research seeks to explore the connection between climate change and conflict in the Middle East.

The drought between 2006 and 2010 in the Levant region was a major factor in the 2011 uprising in Syria. It was estimated that 1.3 million Syrians experienced or were affected by agricultural failures due to the drought. Wheat and barley prices dropped 47% and 67%
respectively and approximately 800,000 inhabitants lost their livelihoods. This major agricultural failure led to a widespread migration of up to 1.5 million Syrians from rural to urban centers. In September 2008, the first UN drought appeal claimed that migration from rural areas during 2007 and 2008 was 20 to 30% higher than during previous years. A subsequent UN report estimated the drought migration at 65,000 families in that time period, although a UN Special Reporter once claimed 600,000 people had emigrated. De Châtel (2014) notes that the Northeast region of Syria had been declining since 2000 due to the agricultural practice shifts and mismanagement of water and land resources; however, continued mishandling of climatic events and a weak socio-political atmosphere exacerbated existing instability.

Water management in Iraq has been poor throughout continued conflicts in the past decades. The first and second Gulf wars led to a major breakdown of an already crumbling water management system. The 2006-2010 drought interacted with the poor socio-economic system following the geopolitical upheavals in Iraq following the Gulf wars and the 2003 US invasion and continued insurgency. Namely, the drought intensified grievances and stress on the Iraqi society through the effects of migration and agricultural losses (King, 2015). Between 2008 and 2009, Iraqi crop yields plummeted 45% leading to a sharp increase in food prices and food insecurity. This event led to over 10,000 farmers abandoning their fields along the Euphrates to emigrate to already struggling urban centers, which increased tensions with the Iraqi government who failed to provide adequate services. These conditions allowed the Syrian conflict to spill across the border into North-Western Iraq.

In areas where climate disasters weakened central government authority, new areas opened that not only provided a safe haven to violent non-state terror actors, but also served as an incubator where these groups could increase their numbers and gain momentum. The Northern provinces of Syria, which produced two-thirds of Syria’s crop yields, were some of the most impacted by the drought. These same regions are the ones that ISIL has maintained steady control of since the beginning of the conflict. Due to the political instability in Iraq and Syria, exacerbated by the drought and weak water management systems, dams overwhelmingly became a focal point of struggle, and a weapon in war. ISIL captured strategic natural resources and weaponized them to accomplish political, economic, and military aims. It is these actions that showcase ISIL’s goal of establishing a caliphate that intends to assume many of the attributes of statehood, including control of territory and providing municipal services to its population. Through apprehending water resources or manipulating them to control the local population, ISIL shifts the power dynamic away from the established state by decreasing state sovereignty and maintaining control over key resources such as food, water, energy and employment.

This paper first explores the existing literature on the relationship between climate change and conflict, water weaponization and the weakening of nation-states. In order to explore the connections between these concepts, a water weaponization chronology of fourteen water weaponization acts by ISIL is produced, along with subsequent state actions against these acts, from November 2012 through June 2018 using information from a variety of news sources, the Pacific Institute’s Water Chronology Site and the Global Terrorism Database. Following the chronology, the Institute for the Study of War’s ISIS Sanctuary Maps and Campaign Tracker are utilized to map these water weaponization acts coinciding with the caliphate’s territorial activity in Iraq and Syria until March 2019 with the announcement of the caliphate’s defeat. The analysis of the chronology and territorial shifts shows a connection between the acquisition of water resources or manipulation of water with the gaining and loss of territory by ISIL over this time period.
**Literature Review**

The weakening of the nation-state as the primary security actor has caused great concern among the international community. Recent technological, economic, and social developments have posed serious challenges to the capacity of a nation to fulfill their traditional functions of security, welfare, and identity, which has allowed for a greater playing field for violent non-state actors (VNSAs) including terror organizations. A report by the US National Intelligence Council explains that challenges such as water shortages, poor water quality, and floods increase the risk of instability and state failure and elevate interstate tensions.

Of increased interest is the degree to which climate change might exacerbate both water insecurity and political instability, causing opportunity for these violent non-state actors. Climate change is often classified as a ‘threat multiplier’, meaning that it triggers, accelerates and intensifies current instabilities. Scholarly research has primarily explored the MENA region, Africa and Southeast Asia. Climate change has enflamed water stress in these areas due to increased droughts, less precipitation and natural disasters combined with weak governments and powerful non-state combatants. When extreme poverty is exacerbated by climate threats and the presence of terrorist organizations, climate change can expand the role and recruiting of these organizations. Climate change impacts elicit the occupation of vital water infrastructure, or the targeting of essential water sources, which make the local population rely on the occupying group for vital resources. The developed world will be far better prepared to tackle the effects of climate change compared to developing nations; therefore, the gap between developed and under-developed countries can potentially provide an opening for extremist ideologies and create the conditions for terrorism. In relation to anticipated climate change effects, increased poverty and reduced state capacity may contribute to the creation or preservation of functional space which may allow terrorist groups to flourish. Of this discussion, the most frequently sought connection between climate change and terrorism within these regions is through water.

In order to conceptualize water as a strategic resource utilized by these terror actors, scholars studying water in security studies focus on water scarcity combined with other factors as a determinant of intra-state conflict. Violent non-state actors such as terrorist organizations pose a significant threat to nation-states as they are engaging states in “asymmetric wars,” in which there are no rules to warfare enabling the expansion of tactics used. For instance, under the 1977 Protocols to the Geneva Convention it is prohibited to “attack, destroy or render useless objects indispensable to the survival of the civilian population”, including water. While states must abide by social norms of war including international law, non-state actors do not, which has increased the direct targeting of strategic resources, such as water, to achieve their goals.

Some classify water weaponization in the concept of “hydro-terrorism.” VNSAs destabilize governments through violent and coercive acts using resources like water as a target, a weapon, a leveraging tool, and a nation-building strategy as well as a motive for violent response. King provides a detailed clarification on types of water weaponization used by these groups. In his assessment of water weaponization, King defines strategic, tactical, psychological terrorism, extortion or incentivization, and unintentional weaponization. He outlines strategic weaponization as “the use of water to virtually or actually control large or important land areas or facilities to fulfill the vision of sovereignty, and…an asset to fund activities, such as administration and weapons acquisition, of a ‘state.'” Tactical weaponization is primarily the “use of water as a weapon on the battlefield in direct or instant support of military operations or against targets of military value.” Psychological terrorism encompasses “creating fear among non_combatants or...
the denial of access or contamination of the water supply.” Extortion or incentivization involves the “use of the water weapon to establish credibility as a governing authority or to reward support from the local population.” Lastly, unintentional weaponization describes when the “use of water as a weapon causes collateral damage to civilians or the ecological environment.” This classification is the most detailed of water weaponization and is useful to separate the multiple utilizations of this strategy.

Additional definitions are utilized to encompass the use of water weaponization. Von Lossow (2016) describes weaponized water as “water resources directly used as an instrument of war in order to achieve strategic political and tactical military goals through targeting the population, addressing the opponent’s political leadership and confronting the opposing military.” Von Lossow’s definition is an all-encompassing definition to describe the strategy rather than separate the different types of weaponization and primarily combines King’s tactical and strategic water weaponization classifications. Daoudy (2020) rather splits it into categories including: domination and legitimacy, the control over resources and infrastructures; attack and capture of large infrastructures (a military target and goal); cutting off water, intentional flooding and defensive fortification (a military tool); and delivery or refusal of basic infrastructure-produced services (a tool of cooperation). This paper utilizes Daoudy’s (2020) definition as it is primarily interested in the ways in which water weaponization is used to shift the power dynamic between the nation-state and VNSAs and the four classifications seen in this definition are the most aligned with the types of weaponization used by ISIL to accomplish this.

Water weaponization is also covered in the context of environmental terrorism—distinct from ‘hydro-terrorism’. Gleick (2006) defines the term “environmental terrorism” as referring to the “unlawful use of force against environmental resources or systems with the intent to harm individuals or deprive populations of environmental benefit(s) in the name of a political or social objective.” Although environmental terrorism encompasses any environmental resources, water is damaged by rendering water unusable, or destroying purification and supply infrastructure, harming local populations. For this research, the classification of acts of water weaponization is not utilized; however, this discussion is useful to clarify the meaning of the term and how scholars have previously identified these acts.

The degree to which water is able to be weaponized relies on its value to the state, which makes regions of the world more prone to water scarcity exacerbated by climate change greater targets. Von Lossow (2016) noted that the effect of water as a weapon depends on the regional hydrological and political context. A resource is more strategically appealing and destructive based on its potential impact in a specific environment. Sofuoğlu et al. (2019) show support for a general causal pattern between climate change and political instability within 16 countries, and conflict in 15 countries, in the Middle East and North Africa region (out of 18 analyzed over the time period of 1985-2016). In arid or semiarid regions like the Middle East and North Africa where water is already scarce, combatants use water to provide robust leverage over their opposition as a militarized target. ISIL in Syria and Iraq has employed the most frequent use of water as a strategic resource in gaining control of territory. ISIL has distinguished itself from other terror organizations through its vision of a caliphate that will assume many of the attributes of statehood, including territorial dominance and provision of municipal services to its population. Water is a key component of this strategy through their ability to both maintain control and gain territory, but also as a source of taxation, agriculture, and as a service usually provided by a state.

Alternative organizations employing these strategies that scholars have explored include Al Shabaab in Somalia, Boko Haram in Nigeria and the Taliban in Afghanistan. Although less
central to their strategy, these groups have all used water as a strategic weapon. Succeeding widespread regional droughts in 2011, Al Shabaab cut off liberated cities from their water sources, forcing residents from cut-off cities to walk to nearby towns to fetch water, many of which Al Shabaab controlled. Al Shabaab’s water weaponization was widely unsuccessful in its attempt to gain legitimacy or hurt the Somali government forces; however, it led to widespread suffering in the population and maintained their presence in the region during the ongoing civil war in Somalia. Boko Haram was documented weaponizing the limited water resources in Nigeria, strategically contaminating water sources such as streams and wells pursued by their enemy, capitalizing on the unrest caused by the civil war from 2005-2010. Continued water stress and intensification of both droughts and flooding in the region impeded the governance capacity of the weak Nigerian government, which led to Boko Haram’s violent surge to create an Islamic caliphate in 2010. In 2017, the Taliban blew up a dam constructed in the Kandahar province of Afghanistan, a key irrigation resource to agricultural lands and its destruction sparked panic among residents. Afghanistan is prone to drought and flooding, which have become more severe as climate change impacts have progressed, causing less snow, earlier snow melting, and an extended, hotter growing season. Additionally, the national government of Afghanistan was not functional for much of the past few decades meaning a lack of central governance over water infrastructure. These are additional examples in which states with weak central governments have been unable to maintain authority to govern due to environmental crises, allowing VNSAs to manipulate water resources as weapons.

As the above examples of countries in the Middle East and African regions imply the vulnerability of states to both climate threats and terrorism hinges on their strength as a state. A decrease in state authority often correlates with an increase in non-state terror organization occurrence who can use strategic resources to their advantage. The provision of goods is a key measure indicating the difference between a weak state and a strong state. The state’s primary function is to provide security meaning to prevent invasions, territorial loss and to eliminate domestic threats or assaults on the national order and social norms. Unlike strong states, failed states cannot maintain their borders and may lose authority over sections of territory. Climate change has the capacity to contribute to reduced state capacity, state failure and economic troubles fostering an enabling environment for non-state actor terrorist groups. In the case of interceding climatic disasters, the economic failure and pervasive neglect that is endemic to failed states leads to recurring food shortages and widespread hunger furthering political instability and providing increased access to VNSAs. VNSAs capitalize on the destabilization of weak borders and reduced state capacity to provide key resources exacerbated by these climatic events.

The strength of a violent non-state actor is measured similarly to that of states. Oktav (2017) uses characterizations of actorness, powerfulness and effectiveness to demonstrate the measure. Actorness includes territoriality and geopolitical codes as well as community building, specifically highlighting territorial control for administrative practices and enforcing the idea of citizenship. Powerfulness comprises financial resources including territorial control and natural resources as well as taxes and confiscations, additionally, recruitment and propaganda. Finally, effectiveness encompasses regional engagements including regional territorial control and degree of security threat as well as international engagements, legitimacy, level of autonomy and counterterrorism actions by the international community. Oktav’s study using the Islamic State as an example, highlights viewing territory not only as a shelter but also an opportunity to engage in administrative aspects of proto-statehood and community-building practices, as well as its funding through the extortion of the population within its territories through taxes, fees, and
These distinctions solidify the importance of territory to measure the influence of these actors as an indicator of state-like behavior. As discussed previously, water is identified as a key component of the ability to both maintain control and gain territory, but also as a source of taxation, agriculture, and resources provided by the state.

The connection between the identified weakness and failure of states and the advancement of violent non-state actors is of vital importance to examine the role of water in these conflicts. Through the capitalization of state weakness, substate actors gain control over areas within the state, build up their own local security mechanisms, authorized markets, and can even establish attempted forms of international relations. VNSAs have particular power in contexts where governments demonstrate a lack of capacity to provide the goods commonly associated with statehood such as security, infrastructure, and other basic welfare services, such as in the Middle East and North Africa region suffering from civil wars and continued unrest. Organizations can leverage their armed capacity to capture and monopolize access to state-sponsored services; specifically, previously existing infrastructure, such as dams, to secure locally dominant status at the expense of the state while avoiding costly and time-consuming investment in independent welfare systems. This strategy ensures the dependency of the local population and demonstrates that a militia is capable of running the state after the conflict.

The existing literature is primarily concerned with the exploration of ISIL’s water strategy rather than the tactic’s use in the deterioration of state sovereignty in Iraq and Syria. Additionally, while they focus on the beneficial use of the strategy in expanding ISIL’s caliphate, they neglect the effect of the loss of these resources and the eventual defeat in March 2019. My research aims to link the environmental issues caused by climate change with terrorism by showing how the acquisition or manipulation of water resources illustrates the shifting power dynamic between the state and VNSAs. In order to show the complete power shift, this paper will analyze not only the attainment or manipulation of these resources, but the effects of their retrieval by the state in the weakening of the caliphate to provide a full view of the influence of water weaponization to gain legitimacy and power.

Research Design
The unstable conditions produced by the droughts in Iraq and Syria from 2006-2010 played a meaningful relationship in the Syrian uprising and the ensuing spill over into Iraq, a weakness capitalized upon by ISIL to set up their caliphate. Brewing grievances against the failing governments and weakened civil institutions produced a safe haven for ISIL combatants and an incubator to recruit and gain momentum. In Syria, following the loss of livelihood and environmental crisis, ISIL recruited 60 to 70% of its fighters locally; likewise, in Iraq, ISIL recruited heavily from disgruntled Sunni Iraqis and prisoners released from Abu Ghraib Prison. The maintenance of municipal service organizations, such as the Islamic Network for Public Services, by ISIL provided electricity and transportation greatly supported by the dams captured through water weaponizations, and was key to this recruitment. For this reason, acts of water weaponization are used, primarily the seizing of dams or use of water to control the local population, to track ISIL’s rise to power and fall to defeat.

While other scholars have sought to identify acts of water weaponization to quantify the links between climate change and terrorism, the previous studies were finalized before the so-called ‘defeat’ of the ISIL caliphate in March of 2019, which is of great importance in understanding how water resources have contributed to their strength. Additionally, the previous studies have been concerned with the exploration of ISIL’s water strategy rather than the strategy’s
deterioration of state sovereignty. My research aims to link environmental issues caused by climate change with terrorism by showing how the acquisition and manipulation of water resources illustrates the shifting power dynamic between the state and VNSAs.

In order to do this, this paper explores the strategy of water weaponization by ISIL in the creation of their caliphate in order to show the power shift from the nation state to the terror group. To further explore this, this paper continues to analyze the decline of the caliphate with the loss of these key water resources and the eventual defeat of the caliphate to further show the power shift back to the nation state. The Islamic State of Iraq and the Levant is used in this case study as their use of water weaponization is the strongest identified utilization of this strategy and their acquisition of territory to build a caliphate is transferable to tracking territorial power shifted to the VNSA group from the state and vice versa.

A chronology of acts of water weaponization by ISIL throughout Iraq and Syria is produced from 2012, as they build their caliphate, eventually announcing in June 2014, through March 2019 with the announcement of their defeat. The Pacific Institute’s Water Chronology Site, the Global Terrorism Database, news sources, local government and UN reports are employed to locate the acts of water weaponization. The Pacific Institute’s Water Chronology Site is a database tracking and categorizing events related to water and conflict. Their database is coded by region, date, category of conflict and includes sources confirming the event. The database is sorted through acts coded as ‘triggers’, ‘weapons’, and ‘casualty’; however, this was not utilized in my research. When the specific timeline of the event was unclear, this research utilized the Global Terrorism Database’s incident reports to narrow the specific date.

This research corroborates these acts through newspapers and reports detailing the events. When possible, using both Western and regional news sources to detail the events in order to verify accurate depictions of the events and obtain both international and local accounts. Although multiple sources are used seeking to prevent bias and error, news media reports in conflict areas provide both crucial on-the-ground information and areas for uncertainty and misinformation. The UN and other international organizations publish reports periodically on the humanitarian situation and events in conflict zones, which are sometimes used to verify news reports.

This chronology is then compared with the regional campaign tracker produced by the Institute for the Study of War in order to compare acts of water weaponization with territory controlled by the caliphate. The institute provides periodical publications of ISIS Sanctuary Maps detailing an assessment of the organization’s control throughout Iraq and Syria. Their publications begin in June of 2014 and the most recent was August 2019. To track the territory controlled by the ISIL, this research turns to their Syria Situation reports and other campaign tracking reports of Iraq and Syria which detail areas controlled by pro-regime forces, ISIL, SDF forces, Iraqi Security forces and reconciled opposition terrain.

By connecting the acquisition and losses of these resources and acts of weaponization through the chronology with the tracking of territory controlled within the timeframe, this paper aims to show that the rise and decline of the ISIL caliphate in Iraq and Syria corresponds with the number of weaponization acts and areas attacked. In doing this, this paper hopes to provide a clearer view of how ISIL’s water weaponization coincides with their strength as a group. This correspondence will aid in solidifying the link between climate change and terrorism.

Results and Discussion

Preceding the proclamation of a caliphate by ISIL in June 2014, declaring the Islamic State, the insurgent group had already acquired territory and water resources. Figure 1. shows the territory
gained by ISIL up until just before the declaration of the caliphate. In a year-long offensive starting after the splintering of the group from Al Qaeda in 2013, ISIL sought territorial gains by fracturing Iraqi Security Forces starting from Mosul, Iraq. From Mosul, the group moved to weaken Iraqi government control toward Baghdad, expanding operations South of Mosul to Taji, Kirkuk and eventually to Baghdad aiming to lay the ground for an Islamic State. ISIL claimed Mosul from June 6-9, 2014 after dissolving the security forces and freeing over 3,000 prisoners from Abu Ghraib Prison. The Ar-Raqqah region of Northern Syria also provided a safe haven and training ground for ISIL seeking control of the Kurdish regions of Northern Syria.

Key. Marking of Weaponization Acts.

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<thead>
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<th>Key</th>
<th>Marking of Weaponization Acts</th>
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<tbody>
<tr>
<td>-</td>
<td>Act of water weaponization territorial acquisition</td>
</tr>
<tr>
<td>-</td>
<td>Loss of water resource previously held</td>
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<tr>
<td>-</td>
<td>Attempt of water weaponization (brief territorial acquisition)</td>
</tr>
<tr>
<td>-</td>
<td>Attempt of water weaponization (no territorial acquisition)</td>
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Figure 1. Institute for the Study of War ISIS Sanctuary Map June 10, 2014

In Figure 1. their acquisition of Fallujah, Ba’ath, Tabqa and Tishrin dams are highlighted. ISIL captured the Tishrin Dam along the Euphrates in Manbij, Syria on November 16, 2012, their first dam seizure while the group was still fragmented and vying for power. Tishrin supplied several Syrian towns with energy, with the capacity to produce 630 megawatts of...
hydroelectricity. This attack led to a Syrian government air raid to regain territory and the dam; however, ISIL maintained control of the dam and surrounding areas.

Several months after capturing Tishrin Dam, ISIL seized the neighboring Tabqa Dam in February 2013 and a year later, the Ba’ath Dam, both located in Ar-Raqqa, Syria (Figure 1.). This acquisition gave much of the countryside to the militant group while government forces struggled to retain the cities of Raqqa and Tabqa. ISIL eventually conquered the city of Raqqa in later January 2014. ISIL leaked that they had controlled the provision of water services after this acquisition by threatening the population with significant fines if the local population evaded the water taxes or tried to steal electricity. Their acquisition of Tabqa Dam, the largest dam in Syria, supplying five million people (including Aleppo) with water including irrigation for agricultural purposes and several towns with electricity, with a max hydropower capacity of 824 megawatts, greatly strengthened their security threat. The control over this Dam gave them power over this population. The Tabqa Dam is also strategic due to its location on Lake Assad and has been Syria’s main source of electricity, in the past making Syria self-sufficient in power generation. The Ba’ath dam provides less hydropower, a max capacity of 81 megawatts, but supplies 60% of Syria’s water.

<table>
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<tr>
<th>Date</th>
<th>Location</th>
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<tbody>
<tr>
<td>November 26, 2012</td>
<td>Manbij, Syria</td>
<td>ISIL rebels(^{85}) capture Tishrin Dam</td>
</tr>
<tr>
<td>February 11, 2012</td>
<td>Raqqa, Syria</td>
<td>ISIL rebels capture Tabqa Dam</td>
</tr>
<tr>
<td>February, 2013</td>
<td>Raqqa, Syria</td>
<td>ISIL rebels capture Ba’ath Dam</td>
</tr>
<tr>
<td>January, 2014</td>
<td>Aleppo, Syria</td>
<td>ISIL seizes Aleppo Water Pumping Station</td>
</tr>
<tr>
<td>April 11, 2014</td>
<td>Nuaimiya, Iraq</td>
<td>ISIL rebels capture Fallujah Dam</td>
</tr>
<tr>
<td>June, 2014</td>
<td>Qaraqosh, Iraq</td>
<td>ISIL blocks water pipes in Qaraqosh</td>
</tr>
<tr>
<td>June 25, 2014</td>
<td>Haditha, Iraq</td>
<td>ISIL troops advance toward Haditha Dam</td>
</tr>
<tr>
<td>August 7, 2014</td>
<td>Mosul, Iraq</td>
<td>ISIL captures Mosul Dam</td>
</tr>
<tr>
<td>August 18, 2014</td>
<td>Mosul, Iraq</td>
<td>Kurdish troops regain control of Mosul Dam</td>
</tr>
<tr>
<td>December, 2014</td>
<td>Salahaddin, Syria</td>
<td>ISIL contaminates drinking water in Salahaddin Governorate</td>
</tr>
<tr>
<td>January, 2015</td>
<td>Mosul, Iraq</td>
<td>ISIL attacks Mosul Dam</td>
</tr>
<tr>
<td>April, 2015</td>
<td>Samarra, Iraq</td>
<td>ISIL attacks Samarra Dam</td>
</tr>
<tr>
<td>June, 2015</td>
<td>Ramadi, Iraq</td>
<td>ISIL shuts off water flows below the Ramadi Dam</td>
</tr>
</tbody>
</table>
December 23, 2015  |  Manbij, Syria  |  Syrian Democratic Forces regain control of Tishrin Dam  
June 13, 2016  |  Fallujah, Iraq  |  Iraqi forces regain control of Fallujah Dam  
November 29, 2016  |  Mosul, Iraq  |  ISIL destroys water pipeline in Mosul  
December, 2016  |  Ramadi, Iraq  |  Iraqi officials announce they have full control of Ramadi  
February, 2017  |  Aleppo, Syria  |  ISIL floods fields in Aleppo to stop the Syrian Army  
March, 2017  |  Aleppo, Syria  |  Syrian Regime forces regain water pumping station in Aleppo  
March-May 2017  |  Raqqa, Syria  |  US and Syrian forces fight ISIL controlling Tabqa Dam  
June, 2017  |  Raqqa, Syria  |  Syrian Democratic Forces Seize Ba’ath Dam  
June, 2018  |  Raqqa, Syria  |  Syrian Government announces reoperation of Tabqa and Tishrin Dams  

In January 2014, ISIL rebels seized one of the main water-pumping stations in Aleppo, Syria leading to the local population being without water for two months (Figure 1.). This site had previously been captured by opposition forces in February 2013. Their final acquisition before the caliphate was the Fallujah Dam in Nuaimiya, Iraq on April 11, 2014 (Figure 1.) which helps to distribute water from the Euphrates River as well as provide water for a number of irrigation projects throughout the Anbar province. ISIL captured Nuaimiya in February and closed the gates to the dam one week before (approximately week of April 4) which reduced water flow to the rest of Iraq’s Southern provinces. Insurgents reopened five gates on April 10 fearing that the dam would flood their stronghold in Fallujah (Reuters, April 11, 2014). Iraqi officials stated that previous flooding from the dam has already caused families to flee and had prevented security troops from retaliating against ISIL. Decline of water levels from the dam closure also resulted in power outages (decrease from 170 megawatts to 90 megawatts) in Baghdad which relied on steam-powered generators. By closing the floodgates, they diverted water over an irrigation channel, flooding land up to 100 km away, including the city of Abu Ghraib, under up to four meters of water. More than 10,000 houses and 200 square kilometers of fertile farmland, including the annual harvest, were destroyed between Fallujah and Abu Ghraib. Over 60,000 residents in the area were displaced after losing their livelihood to the flood. In destroying homes, agricultural fields and livelihood, the local population is forced to succumb to the insurgent groups’ authority or flee.

Figure 2. Institute for the Study of War ISIS Sanctuary Map October 30, 2014
In June 2014, following the declaration of the caliphate, ISIL obstructed water pipes to the predominantly Christian town of Qaraqosh, Iraq (Figure 2.). They took over agricultural lands displacing close to 50,000 inhabitants pushing them to arrive in search of safety, food and water in Erbil. This action followed ISIL’s seizure of the city of Mosul on June 10, 2014 which is nearby. The seizure of Mosul attached ISIL’s southern Dier ez-Zour and Anbar system, which was the primary goal throughout July. ISIL also maintained vast control of territory in Northeast Syria in the Ar-Raqqa province and surrounding Aleppo continuing to hold Tishrin, Ba’ath and Tabqa dams as well as the Aleppo Pumping Station (Figure 2.).

Later in June, Iraqi security officials reported that ISIL troops were advancing on the Haditha Dam (Figure 2.). More than 2,000 Iraqi troops were deployed to the area to protect the dam, prepared to open the floodgates if ISIL reached the dam which would cause flooding of the town and villages and potential harm to the locals. Due to its attachment to Lake Qadisiyah, which could be a potential weapon of mass destruction, US rangers seized Haditha Dam during the 2003 invasion of Iraq to prevent Saddam Hussein’s forces from destroying it and causing an enormous flood. ISIL was unable to seize the dam due to Iraqi presence; however, this would have been a major gain if they had, as it supplied more than 30% of Iraq’s energy, particularly to the city of Baghdad.

ISIL captured the key facility of Mosul Dam (Figure 2.) on August 7, 2014 prompting swift airstrikes by the Iraqi government, Kurdish and US starting on August 11. The head of the Kurdistan region’s presidency office noted that ISIL had transitioned from a terrorist organization to a terrorist state. The dam can produce 1010 megawatts of electricity, 75% of Iraq’s energy production capability and holds back 12 billion cubic meters of water which are crucial for the
irrigation of local agriculture of the Nineveh province.\textsuperscript{104} It is estimated that a catastrophic failure of Mosul dam could result in a flood wave of 20 meters toward the city of Mosul.\textsuperscript{105} ISIL’s featured their capture in their propaganda campaign and the group placed an Islamic State flag on top of the dam declaring their victory shown in Figure 3. The Iraqi government and Kurdish forces announced that they have fully regained control of Mosul Dam with the help of US airstrikes on August 18, 2014 (Figure 2.).\textsuperscript{106} US airstrikes commenced on August 8 following ISIL’s capture.\textsuperscript{107} These were the first US operations in Iraq since 2011 when they pulled out of the war in Iraq and prompted further European involvement against the insurgent group.\textsuperscript{108}

**Figure 3. ISIL Propaganda featuring Mosul Dam.**

Photos retrieved from UN Security Council CTED Trends Report March 2017

September and October 2014 marked ISIL’s consolidation of control over the Anbar province of Iraq, specifically the midpoint of Hit between Ramadi and Haditha.\textsuperscript{109} This corresponded with ISIL’s quest for the Haditha Dam (Figure 2.). The ‘Southwestern Baghdad Belts’ had been an ISIL stronghold including Jurf al-Sakhar, Farisiyah, Fadhiliyah, Abu Ghraib, and Amiriyat al-Fallujah; however, Iraqi Security forces were struggling to maintain control of Amiriyat al-Fallujah which was crucial for their strength.\textsuperscript{110} Their stronghold in Mosul fell before the June attack on Mosul dam, but it is noted that this could have been in order to preserve the surprise of their great attack.\textsuperscript{111}
In October 2014, ISIL captured the city of Hit between Ramadi and Haditha, as previously targeted, and sought to take Ramadi.112 In December 2014, ISIL conducted simultaneous attacks on Iraqi Security Forces in Haditha and Ramadi in their widespread ground offensive to capture Ramadi.113 In December 2014, the UN reported that ISIL had intentionally contaminated drinking water with crude oil in the Governorate of Salahaddin as well as in Aleppo, Deir ez-Zor and Raqqa (Figure 4.).114 During this time, Kurdish SDF forces pushed ISIL’s presence to the periphery of Raqqa; however, ISIL expanded greatly in the Hasaka province and surrounding Damascus in Syria near where the Salahaddin contamination took place.115 ISIL also saw losses in Mosul in January 2015 and launched another attack on Mosul Dam (Figure 4.); however, the militant group was not able to capture the dam.116 Peshmerga soldiers and Sunni tribal groups near Mosul prevented this attack leading ISIL to declare new governorates in nearby Jazeera and Zaab in a defensive mobilization around Mosul.117

Iraqi forces conducted a major offensive to take back areas around Tikrit and Baiji from November 2014 through March 2015.118 ISIL took partial control of the Samarra dam (also known as Al-Thirthar dam) in Samarra, Iraq in late April 2015 (Figure 4.).119 Iraqi forces announced an
increased offensive to take back the Anbar province, but this attack majorly decreased their progress.\textsuperscript{120} ISIL seized Ramadi dam (Figure 4.) in May of 2015 and weaponized this water by cutting off pro-government towns downstream on the Euphrates River.\textsuperscript{121} This followed ISIL’s conquest of Ramadi which finally fell on May 27, 2015 after many months of ground attacks against Iraqi forces (Martin, 2015). The militants manipulated the dam by only opening two or three of the dam’s gates per day rather than the twenty-six possible.\textsuperscript{122} This lowered the depth of the river allowing ISIL soldiers to cross and strike pro-government towns of Husaybah and Khalidiyah, most importantly located near the Habbaniya military base.\textsuperscript{123} Additionally, there were threats to cut off drinking and irrigation water to the local population reportedly causing thousands to go without drinking water in the height of the summer heat.\textsuperscript{124} 800 Iraqi federal forces were deployed to combat ISIL following a major Iraqi government operation tasked to take back the Anbar province, of which Ramadi is the capital.\textsuperscript{125} There were reports of families fleeing the militants’ control; however, the reports vary from dozens to 300 families.\textsuperscript{126}

In September of 2015, Russia began its direct intervention in Syria enabling the Syrian regime to mount renewed offensives against the caliphate.\textsuperscript{127} Islamic Revolutionary Guard Corps and proxy forces initiated a prolonged offensive on the city of Aleppo.\textsuperscript{128} US backed SDF forces also made major gains along the Syria-Iraq border in Al-Hawl and Sinjar provinces.\textsuperscript{129} The SDF were also advancing toward the Southern Hasaka province seeking to liberate areas of the Ar-Raqqa province.\textsuperscript{130} On December 23, 2015 in this SDF offensive to liberate ISIL controlled towns along the Euphrates River, the forces regained control of the Tishrin Dam (Figure 4.).\textsuperscript{131} ISIL continued to lose terrain in Iraq and Syria throughout the early months of 2016. Iraqi Security Forces reseized the city of Hit in the Anbar Province on April 14 as part of continual operations to secure the Euphrates River Valley.\textsuperscript{132} In May, ISIL lost territory in Iraq but claimed an attack on Wilayat Sahel, on the Northwestern coast of Syria, located in regime territory.\textsuperscript{133} ISIL combatants initiated complex suicide attacks in deep regime territory in Tartus City and Jableh on May 23, 2016 and indicated they were escalating assaults against Alawite communities on the coast of Syria in order to aggravate existing sectarian tensions during the month of Ramadan.\textsuperscript{134}

On June 13, 2016 Iraqi forces regained control of the nearby Fallujah dam (Figure 4.), which ISIL took in early 2014, following an Iraqi quest to liberate the city of Fallujah on May 23.\textsuperscript{135} ISIL also capitulated the city of Manbij and the town of Al-Rai in Northern Aleppo Province in a chain of victories for the US-backed anti-ISIL coalition in July.\textsuperscript{136} Simultaneously, the Iraqi Security Forces sustained conditions for future operations to retake Mosul.\textsuperscript{137} These areas under ISIL control in Mosul, Raqqa and Al-Bab were weakened in October by increasingly strong anti-ISIL operations.\textsuperscript{138} In retaliation to the encroaching Iraqi forces, on November 29, 2016 more than 650,000 Iraqis were without water in Mosul after ISIL struck one of the three major water pipelines (Figure 4.).\textsuperscript{139} It was reported that the militant group cut electricity to the water stations feeding neighborhoods where Iraqi troops were advancing in the operations by Iraqi Security forces to liberate Mosul that began in October.\textsuperscript{140}

![Figure 5. Institute for the Study of War ISIS Sanctuary Map August 19, 2019](https://digitalcommons.dartmouth.edu/dujpew/vol1/iss3/9)
In late December 2016, Iraqi officials announced that they had control over Ramadi Dam and the surrounding town (Figure 5.). ISIL initiated offensives in January 2017 against the Syrian regime in Deir ez-Zour, the Eastern Homs province, and the Eastern Damascus province, capitalizing on the regime’s focus on Aleppo and aiming to offset or redirect regime operations near Al-Bab. ISIL flooded villages in Deir Hafer Plain in East Aleppo, Syria (Figure 5.) in response to a raid by the Syrian Arab Army. The militant group pumped water from Assad Lake into Al-Jar Channel. This advancement by the Syrian Army put them within the ISIL stronghold of Deir Hafer for the first time since the creation of the caliphate. Regime forces began to chip away at ISIL’s territorial gains in Homs province in mid-February and ISIL capitulated additional terrain in Mosul, Iraq to the US-led anti-ISIS coalition in early 2017.

ISIL suffered territorial losses in Iraq and Syria between February 27 and March 9, 2017. Pro-regime forces reseized Palmyra, Syria with reinforcements from Iranian, Russian, and Lebanese Hezbollah forces on March 2. Pro-regime forces acquired additional towns from ISIL in the Northeast Aleppo province between March 7 and March 9. Syrian regime forces recaptured the key water pumping station in Aleppo, Syria (Figure 5.) after inhabitants had been without water for two months since ISIL had cut the pipeline. ISIL seized the facility in January, 2014 (Figure 5.).

In May 2017, US-backed forces continued to advance in major ISIL strongholds in Mosul, Iraq and Raqqa, Syria. Iraqi Security forced encircled the city of Mosul and US-backed SDF
forces captured the city of Tabqa. The Syrian Democratic Forces and US troops launched an offensive in March against ISIL holding Tabqa Dam, a key source of hydroelectricity for the caliphate. On May 10, 2017 reports indicated that drone footage showed the dam completely under SDF control (Figure 5.). Both Tabqa and Tishrin Dams were re-operational under the Syrian government in June 2018 (Figure 5.). NATO leaders also formally negotiated a partnership in the Anti-ISIS Coalition in Iraq and Syria during the NATO Summit on May 25 in Brussels, announcing that NATO will increase its "airspace management" and aerial refueling mission for coalition aircraft and expand its deployment of special forces teams to train local ally forces. As ISIL within Iraq had largely been defeated, regional actors continued to vie for control of post-ISIL Iraqi reconstruction.

In June of 2017, US-backed SDF forces regained control of the last dam under ISIL control, the Ba’ath Dam (Figure 5.). This came within the SDF’s major offensive to take back Raqqa, which they achieved in October of that year. In September, Syrian pro-regime forces continued to attack Deir ez-Zor province with the support of heavy bombardment by the US and Russia and also launched offensives to clear out the Iraq-Syrian border. This offensive from Deir ez-Zor continued down the Euphrates river to continue liberating towns. Additionally, the US Anti-ISIS coalition withdrew from its outpost on the Syrian-Iraqi border near Homs as part of a de-escalation agreement. In July 2017, a de-escalation zone in Southern Syria was brokered by the US, Russia and Jordan. On October 20, the SDF declared victory over ISIL in the city of Raqqa, Syria.

In early 2018, Israel announced its support for the new opposition offensive against ISIL in Syria entitled “Battle of Conquerors” and reportedly contributed cross border shelling from the Golan Heights. The coalitions continued offensives against ISIL in the Deir ez-Zor province of Syria. In May of 2018, Syrian pro-regime forces announced the complete control of Damascus after the evacuation of the last remaining pocket in the capital city. Additionally, the US-led coalition launched Operation Roundup in order to “destroy IS” in Eastern Syria. In December of 2019, President Donald Trump announced the withdrawal of troops from Syria and in January, US troops were spotted removing military equipment from Northern Syria. This movement came after US troops prepared to clear the final pocket of ISIL held territory in the Deir ez-Zor province of Syria. ISIL lost its last territorial zone in Syria on March 23, 2019 after it was seized by SDF forces.

Looking forward after the ‘defeat’ of the caliphate, it was estimated that ISIL still had over 30,000 fighters located within Iraq and Syria in August 2018 based on a report by a defense intelligence agency. After the widely successful offensives, it was presumed that ISIL deliberately pulled back, relocating the majority of combatants and their families from Mosul, Raqqa, and other prominent cities into new and previously known support zones in Iraq and Syria. ISIL forces are now scattered across Iraq and Syria and are still an existing security threat. ISIL also preserved their global finance network which enabled their ability to transition back to an insurgency, additionally, retaining ample weaponry and other resources in alleged tunnel systems and other support mechanisms in order to equip its revived insurgent force in the future. On May 31, 2019, ISIL declared the start of a new global campaign called the ‘Battle of Attrition’ instructing their followers to seize terrain temporarily as a way to erode their opponents. ISIL has also made great strides in its ability to campaign both in Iraq and Syria and abroad which enables it new opportunities. A successful reestablishment of a physical caliphate in Iraq and Syria could yield new surges of ISIL attacks in Europe and give the opportunity for legitimization of ISIL’s inevitable long-term victory narrative.
Conclusion
This paper explored the capacity of climate change to shift the power dynamic between nation-states and violent non-state actors within their borders. The water weaponization of ISIL in Iraq and Syria shows the ability of manipulating water resources in a water scarce and politically unstable environment to strengthen the role of violent non-state actors. Fourteen acts of water weaponization were identified and chronologized along with any subsequent state actions to reconcile these water resources. These acts of water weaponization were mapped in order to correlate ISIL’s use of water as a weapon with the acquisition and loss of territory within their caliphate in Iraq and Syria. Analysis of these acts showed a swell of weaponization acts before the establishment of the caliphate and during its territorial strength from 2012 through 2015 and the demise of both the frequency of weaponization acts and the territory held by the caliphate from then until 2019.

These findings show a link between the effects of climate change and the increased opportunity for violent non-state actors through the weakening of the nation-state. Furthermore, this case shows the vulnerability of states to VNSAs while under environmental and political stress. Although the caliphate was ‘defeated’, ISIL remains a continued security threat and the strategy of water weaponization could be used to reestablish territorial control over other water scarce regions. Similar tactics have been seen throughout Africa, Southeast Asia and other areas within the Middle East, and this strategy could become widespread as climate change impacts increase.

The offensives to take back resources acquired by ISIL through water weaponization were enabled by the involvement of outside international actors including the US, Russia, NATO, Israel and Iran who provided military-training, funding and weaponry to strengthen the ground forces in Iraq and Syria. Following the demise of the caliphate, international support withdrew and coincided with a shift towards controlling the reconstruction of post-ISIL Iraq and Syria. The success of the reconstruction and strengthening of these states will become a key predictor in ISIL’s potential resurgence in the region. Additionally, as climate change effects increase, this strategy could become widespread and used by other groups taking the lead of ISIL. The strengthening of both central governance and authority over water infrastructure is vital for future security and counterterrorism measures, especially in water scarce regions affected by climate change.
Endnotes


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20 In this paper, I will use violent non-state actors (VNSAs) and terror organizations interchangeably to describe my intended research subjects.


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26 ibid.

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29 This paper does not seek to study interstate wars due to water or control of resources.


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ibid.

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ibid.


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67 ibid.
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71 ibid.
72 ibid.
73 Meaning from the US or Europe.
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76 ibid.
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85 Before the caliphate was established in June 2014, these acts of water weaponization were referred to as acts by rebels or insurgents, not distinctly ISIL; however, came to be under solidified control under the caliphate. The term ‘ISIL rebels’ is used to differentiate the group before and after the caliphate and consolidation of power.
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90 Al Mada, April 23, 2014
Water Weaponization by ISIL

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Minority Representation on the U.S. Court of Appeals: Do Foreign-Born Judges Influence Immigration Case Outcomes?

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ABSTRACT: This paper assesses the impacts of minority representation on judicial decision-making within three-judge panels on the Ninth Circuit of the U.S. Court of Appeals. While much of the existing literature regarding this issue has looked at racial and gender minorities in the federal judiciary, this paper seeks to identify whether the presence of foreign-born judges on appellate panels has an effect on the holdings of immigration-related cases. To address this question, I compiled an original database of 200 immigration cases decided between 2016 and 2020. The results reaffirm previous findings that panels with at least one female judge or judge of color are more likely to vote in favor of immigrant appellants. However, contrary to theoretical expectations, the results find that foreign-born judges were not more likely to vote in favor of immigrant appellants, signaling that the identity of being an immigrant may not have as strong of a predictive value on judicial decision-making as race or gender. This has broad implications for how we understand the role of different identities in shaping case outcomes in the U.S. Court of Appeals.

Introduction

The judicial branch of the United States government is its most objective.1 Unlike the chambers of Congress or the President, federal judges are meant to make decisions independent of personal or political pressures; rather than passing laws, their job is to apply the law correctly based on the facts of a case.2 However, a growing body of research into judicial decision-making suggests that judges do not always vote objectively. Scholars have found that certain factors — namely the race and gender of judges within appellate panels — can influence case decisions.3,4 Controversy over this issue arose in 2016, when then-President Donald Trump claimed that U.S. District Judge Gonzalo Curiel should not have presided over a case involving Trump University because his Mexican heritage presented an “absolute conflict.”5 Since Trump was advocating to build a wall on the U.S.-Mexican border at the time, he asserted that the judge would harbor an unfair bias towards him during legal proceedings. In the end, Judge Gonzalo Curiel remained on the lawsuit’s panel and would go on to rule in Trump’s favor to stop a lawsuit aimed at blocking the border wall’s construction.6 While Trump’s remarks were deemed racist by many, the situation begs the question: Do personal identities influence judicial decision-making?

In this section, I summarize the existing literature surrounding the effects of minority representation on the federal bench. Despite criticisms about the objectivity of minority judges, researchers have only found persistent differences in case decisions when the identities of minority judges substantively relate to the issues at hand. To illustrate this, Boyd, Epstein, and Martin (2010) performed a comprehensive analysis of the effect of judges’ gender on case outcomes across 13 areas of law. They did not find gender effects in any area of law besides cases of sex
discrimination, in which female judges were more likely to side with plaintiffs. This suggests that a general pro-plaintiff or otherwise liberal attitude among female judges is not driving gender differences in voting behaviors, but rather, the content of sex discrimination cases specifically elicits different responses in male and female judges.

Since the focus of this paper is on the U.S. Court of Appeals, my research must properly account for its institutional features. While some studies have assessed differences in individual voting behaviors between minority and nonminority judges, these individual effects cannot explain Court of Appeals outcomes because federal appellate panels do not operate by having judges decide cases on their own. Instead, judges in the Court of Appeals deliberate together in panels of three and must come to a unanimous decision about a case’s holding. Research shows that minority representation on appellate panels impacts judicial decisions both at the individual and panel level. That is, not only are individual female judges more likely to vote in favor of appellants alleging sex discrimination, but panels that include at least one female judge are also more likely to vote in favor of these appellants. Similarly, Black judges and panels with Black judges are more likely to vote pro-appellant in cases of racial discrimination and affirmative action. In discussing appellate panels, it is also important to note their institutional norm of consensus. An overwhelming majority of cases are decided with consensus; only around 6-8% of cases include a dissent opinion from one of the co-panelist judges. However, the low percentage of dissents does not fully capture the amount of disagreement within panels — judges do not always dissent when they disagree with their co-panelists because there are costs associated with doing so. For example, dissenting can undermine the federal judiciary’s sense of legitimacy and perceived objectivity. Additionally, writing a dissent can ostracize a judge from their colleagues and create a fruitless workload for them. Therefore, judges in disagreement are often compelled to align themselves with the majority opinion and vote differently than they might otherwise have, making it difficult to determine whether judges voted in accordance with their true views.

Most of the scholarship on judicial decision-making in the Court of Appeals has been concerned with race and gender. As a result, previous studies have mainly looked at the effects of minority representation on cases of sex and race discrimination. By contrast, very few studies have examined the influence of minority judge characteristics on cases related to immigration. One such study on immigration cases from 1999-2009 explored whether panels with judges of color and female judges systematically voted more pro-immigrant. The researchers found that consistent with previous studies, panels with at least one female judge voted more pro-immigrant than their all-male counterparts. However, the same study also found that panels with at least one judge of color were more anti-immigration than their all-white counterparts. The authors suggest that this finding could have arisen because judges of color were less sympathetic to “claims made by people who have entered the country illegally” or because “they are cognizant of the scrutiny they are under in deciding these cases.” In my view, this also suggests that immigration cases are not substantively related to the racial identities of minority judges, so I turn my focus instead to foreign-born judges, whose relationship to immigration cases parallels that of female judges and judges of color to sex and race discrimination cases.

Taken together, the literature on judicial diversity suggests that panels with racial and gender minority judges increase the likelihood of a case outcome being pro-appellant. However, in reviewing these studies, I found that there was a dearth of research into the panel effects of foreign-born judges in the Court of Appeals. Part of this problem is likely due to the fact that foreign-born judges are underrepresented in the circuit courts. Currently, the U.S. is home to roughly 44.7 million immigrants or around 13.7% of the national population.
by the Ninth Circuit, the immigrant population is even higher than the national average because they harbor some of the nation’s most popular airports and immigrants tend to concentrate near gateway ports of entry in their cities.\textsuperscript{18} By contrast, only 2 out of the 29 sitting judges (6.8\%) on the Ninth Circuit court are foreign-born.\textsuperscript{19}\* The underrepresentation of immigrant judges has especially worrisome implications in the Ninth Circuit, since around 40\% of all cases heard in its courts are related to immigration.\textsuperscript{20} Women, people of color, LGBTQ+ people, and religious minorities are also underrepresented in the Court of Appeals compared to their representation in the U.S. population, and this issue has increased with the recent judicial appointees.\textsuperscript{21} For example, women comprise 30\% of circuit court seats although they are 50.52\% of the U.S. population; Hispanics comprise 7\% of seats although they are 13\% of the population; Blacks comprise 11\% of seats although they are 13\% of the population; etc.\textsuperscript{22} In discussing diversity in the federal judiciary, I must highlight the difference between the descriptive representation that I have just described and substantive representation.\textsuperscript{23} Descriptive representation relates to being represented by judges who have the same demographic characteristics as the population. On the other hand, substantive representation relates to being represented by judges who hold the same opinions and views as the population. While these terms have some overlap in that judges who share demographic characteristics with a population may hold the same beliefs as them, minorities are certainly not a monolith and cannot be assumed to have one set of views, even in areas of law that are salient to their identities.

Importantly, the Ninth Circuit’s diversity has gone through a shift in recent years. During Trump’s presidency, he filled 10 vacancies in the Ninth Circuit court alone.\textsuperscript{24} This effectively flipped the composition of the court, which had long been hailed for its commitment to diversity ever since Jimmy Carter’s 1970 initiative to appoint minority judges to the federal judiciary.\textsuperscript{25} As of January 2021, a third of the 29 sitting judges on the nation’s traditionally most liberal court were right leaning Trump appointees. Of Trump’s picks, there were 2 Asian men, one of whom was born outside of the U.S., and 2 White women. The rest were White men.

In response both to the gap in the literature and the pressing need for more representation of foreign-born judges in the federal judiciary, I narrowed the focus of my research to answer the following question: Do Ninth Circuit Court of Appeals panels with at least one foreign-born judge vote differently from panels with all U.S.-born judges on immigration cases? Although the existing literature affirms that minority panel effects are present, scholars have struggled to ascertain why. The next section covers theoretical expectations in an attempt to identify potential causal mechanisms that may be driving these effects on the federal bench.

**Theoretical Expectations**

In order to properly interpret my research, it is crucial to understand why previous studies find that panels with minority judges vote differently than those without. In this section, I discuss three theoretical explanations, which provide psychological insight into the impact of diversity on judicial decision-making. They help provide an account for why we might predict that panels with minority judges, specifically foreign-born judges, will vote more pro-appellant in immigration cases.

**Norm of Consensus**

Fischman (2011) states that due to the collaborative nature of appellate panels, judges do not always vote sincerely.\textsuperscript{26} Rather, they conform to the norm of consensus in the federal judiciary by voting against their own views in favor of the views of the majority. Under this logic, the panel-
level effects of judicial diversity may be the result of nonminority judges believing that they will not be able to change the vote(s) of their minority co-panelist(s). Thus, they would side with their co-panelists in order to preserve unanimity and avoid the minority judge filing a dissent. This explanation reflects an endogenous effect because the outcome (vote) for one individual affects the outcomes of their co-panelists. In this way, we expect that minority judges will shift the range for a consensus view and the presence of a minority judge who holds more pro-appellant attitudes will predictably increase the likelihood that the panel will hold pro-appellant.

**Learning Through Exposure**

Pursuant to previous literature on learning theories, I submit that as people learn about others’ lived experiences, they adjust their own views to incorporate this new information. For example, one study showed that pro-White sentiments among White Americans decreased during and following the Black Lives Matter Movement in 2018, which the researchers posit was due to exposure to media content highlighting Black American stories about being targets of police brutality and racism. In another study, researchers postulated that male judges with daughters vote more pro-feminist because prior to having children, they were unaware of women’s issues and better understood those issues when they had a daughter who was experiencing them. This logic theoretically extends to judicial appellate panels because the first-hand experiences of female judges, judges of color, and foreign-born judges can be shared with their white, male U.S.-born co-panelists during case deliberation. As a result of learning through exposure, this suggests that the co-panelists would adopt more pro-appellant attitudes in gender and racial discrimination cases, as well as immigration cases. African American D.C. Judge Harry Edwards affirmed this idea in 2002, stating that:

“If I bring unique perspectives to judicial problems — perspectives that are mine in whole or in part because I am Black — it is a good thing… because it is inevitable that judges’ different professional and life experiences have some bearing on how they confront various problems that come before them. And in a judicial environment in which collegial deliberations are fostered, diversity among the judges makes for better-informed discussion.”

In the context of this study, the literature implies that foreign-born judges who have gone through the immigration courts would be able to expose U.S.-born judges to first-hand accounts of the immigrant experience and foster more positive attitudes towards immigrant appellants. For example, Carlos Bea, a Ninth Circuit judge who was born in Spain, told his story of immigrating to America and how he was nearly deported by an immigration court as a young college student. In a 2007 address to the Board of Immigration Appeals (BIA), he said:

“Every immigrant has a story. You see before you an immigrant who was once under an order of deportation...We are a nation of immigrants and the subject is a vital one for all of us. Every time an Albert Einstein invents a theory, an Arnold Schwarzenegger becomes a Governor, or a rookie Hispanic judge writes a dissent, I am reminded that immigrants aren’t just a previous generation long gone, they are an ever-changing contribution to our society, which really is a melting pot.”

**Moderation**
Lastly, it is possible that the presence of minority judges on appellate panels causes nonminority judges to moderate their anti-appellant views. For example, a panel of three U.S.-born judges may bring up arguments or display attitudes that are anti-immigrant because either they believe that their U.S.-born co-panelists will agree with them or they believe that there will not be strong opposition associated with expressing their views. However, if an immigrant judge were on that same panel, we could expect that a judge who would otherwise express anti-immigration views might adjust their speech to not incur the social cost of offending a colleague. Studies of social psychology bolster this claim, finding that in the case of racial biases, White Americans use social tuning in interracial interactions by exhibiting less prejudice in the presence of Blacks than in the presence of other Whites. Researchers postulate that this is because the participants shifted their behaviors in order to not appear biased to those around them. If a judge’s anti-appellant views were moderated by the presence of a judge who shares an identity with the appellant, then we might expect them to concede the case and side with the minority judge.

Data and Methods

My data consists of a random sample of 200 immigration-related cases decided in the Ninth Circuit of the U.S. Court of Appeals between 2016-2020. Through Westlaw, a legal research website, I conducted an advanced search request that narrowed down all Ninth Circuit cases with the date range from January 1st of 2016 to September 18th of 2020, which was the day that I began collecting my data. Having a date range from the last four years was of particular interest to me because of the political climate surrounding President Trump’s immigration policy, as well as the shifting composition of the Ninth Circuit court to be more conservative.

I chose to only focus on immigration cases because the existing literature suggests that the impacts of minority representation on judicial outcomes is found most consistently in cases related to an area of law that is relevant to the judges’ identities. Since the novel approach of my paper is examining foreign-born judges as minorities in the federal judiciary, I felt that immigration cases were most parallel to studies on female judges in sex discrimination cases or Black judges in racial discrimination cases. I decided to concentrate my research on cases only within the Ninth Circuit because its courts have such a large immigration caseload and a high rate of immigration into its states (Montana, Washington, Oregon, Idaho, Nevada, Arizona, Alaska, Hawaii, and California) compared to other circuits. Using Westlaw, I further narrowed my search to cases that fall under the category of “Aliens, Immigration, and Citizenship.” I manually excluded cases in which the U.S. government was one of the litigants. This left all of the cases included in my dataset with the two litigants being the case’s immigrant appellant and one of the U.S. Attorneys General as the appellee. During my date range, the Attorneys General were William Barr, Jeff Sessions, Loretta Lynch, and Matthew Whitaker. After employing the exclusion criteria, there were 285 remaining cases, of which I used a random number generator to select 200 cases for analysis.

My dataset focused on panel-level judicial decisions, as opposed to the voting records of individual judges. This decision was made in part because, institutionally, the U.S. Court of Appeals has a norm of consensus in which all decisions must be made with approval of all three judges on a panel except in cases where one judge dissents. While it is possible to use dissents as a proxy for individual votes, my dataset included only 15 dissents out of 200 cases. Since each case has three votes — one per panelist — there were 15 dissents out of 600 votes, which was too small a sample to be able to perform comprehensive statistical analysis on. This would likely not have a strong impact on my research focus because, of the 15 dissent votes, I found only one case in which an immigrant judge dissented.
Using Excel, I coded for 28 distinct variables. The outcome variable for my research purposes was the holding of each case, which I coded as a gradient based on how favorable the outcome was towards the immigrant appellant. In Court of Appeals cases, the panel may decide in favor of the immigrant appellant by affirming their petition to be reconsidered by the Board of Immigration Appeals (BIA), an independent administrative agency. In my codebook, a holding of (0) indicates that the appellant’s petition was fully denied or denied in part and dismissed in part by the panel; a (1) indicates that the petition was granted in part and denied or dismissed in part; a (2) indicates that the petition was fully granted. I used this gradient as opposed to a binary variable in order to capture the nuance of the holdings and account for the large number of cases that were upheld in part and denied in part.

My key variable of interest was whether or not each judge on a panel was born in the U.S. (U.S.-born = 0; foreign-born = 1). To identify which judges were foreign-born and which were U.S.-born, I collected information directly from the Federal Judiciary Center (FJC), which provides publicly accessible bios that include the birthplace of every federal judge. Further, FJC bios include data on the U.S. president that nominated each judge. I used the party of the nominating president as a proxy for the partisan affiliations of each judge (Republican = 0; Democrat = 1). I collected information on race/ethnicity (White = 0; Hispanic = 1; Asian = 2; Black = 3; Middle Eastern = 4; Native American = 5) and gender (Male = 0; Female = 1) based on my personal assessment of Google images and the surnames of each judge. Although the accuracy of my assessment may have limitations, this method is most often used for judicial research since federal judge’s race and gender identities are not explicitly listed on any official websites.

I also included a variable for the national origin of each immigrant appellant in my dataset. There is robust evidence that not all immigrants are treated or viewed the same — Americans have for decades viewed immigration from European countries more favorably, especially compared to immigration from Latin America and Asia. Even in the federal judiciary there are large disparities in rates of asylum petitions being granted depending on which country they are from. Westlaw includes the national origin of the appellant in its case reviews because they are relevant to the immigration case proceedings. Using this information, I created a variable to categorize appellants based on what region their country of origin is belongs to (Europe = 0; Latin America = 1; East Asia = 2; Middle East = 3; Africa = 4).

After collecting this data, I used RStudio to create dummy variables to catalogue cases based on whether the presiding panel had one immigrant judge, two immigrant judges, or no immigrant judges, as well as the panels’ number of female judges, judges of color, and Democrat judges. I then performed two logistic regression tests of panels’ decisions in immigration cases. The U.S. Court of Appeals randomizes assignment of judges to cases, so randomization in my data can be assumed.

Before discussing my results, it is useful to address the descriptive statistics of my dataset. Figure 1 shows the distribution of regional origins among immigrant appellants. The majority of appellants came from Latin America (61%) with appellants from Europe being the least represented group (6%). Figures 2-4 show the distributions of judges’ race, gender and party affiliation, respectively. The low representation of panels with three judges of color (1.5%), three female judges (1.5%), and three Republican judges (3%) is consistent with the makeup of judges in the Ninth Circuit, which is overwhelmingly made up of white male Democrats. Figures demonstrating panel composition are more useful to view in the context of my research than the composition of all judges included in my dataset, since my research interest is in panel-level
effects. A more comprehensive empirical model for different panel composition combinations can be found in Appendix Table A1.

Additionally, I found that 24% of immigration cases had at least one foreign-born judge presiding. There were only 3 cases in which two foreign-born judges presided (1.5%) and none in which three foreign-born judges presided, which I did not include in my analysis or discussion due to the small sample size. Furthermore, my data includes 90 unique judges, 29 of whom are sitting members of the Ninth Circuit court and 61 of whom are members of other district courts that were randomly selected to preside in Ninth Circuit cases. This includes a total of 11 foreign-born judges in my dataset, 2 of whom currently serve on the Ninth Circuit and 2 of whom recently retired from the Ninth Circuit. All of the foreign-born judges in my dataset are now American citizens. Of the 11 immigrant judges: 5 were Hispanic, 2 were White, 2 were Asian, and 1 was Black; 5 were nominated by a Republican and 6 were nominated by a Democrat; 9 were men and 2 were women. Although there are more Democrat-appointed immigrant judges in my data, Republican-appointed immigrant judges presided over twice as many cases.

Results

To answer the central question of this paper — whether panels with at least one immigrant judge vote differently from panels with no immigrant judges — I report the voting records of panels based on the presence of minority judges. Figure 5 provides a graph of the raw data on total holdings that were fully granted, granted in part/denied in part, and fully denied among all panel-
types. Since I coded case outcomes on a gradient with 0 (appeal fully denied) being the most anti-immigrant and 2 (appeal fully granted) being the most pro-immigrant, this figure shows that regardless of panel composition, panels were more likely to vote anti-immigrant.

![Figure 5: Panels’ Total Holdings](image)

Using the incidence of each holding across different panel-types, Table 1 shows that the mean holding in all cases was 0.535, which skews anti-immigrant appellant. Table 1 also demonstrates that panels with at least one minority judge voted more pro-immigrant than the average. The increase in mean holding for panels with at least one immigrant judge, which was my principal interest, is +0.048. By contrast, panels’ mean vote with at least one female judge is +0.066 higher than the average and panels with at least one judge of color is highest at +0.106 higher than the average, meaning that the smallest difference in means was among panels with a foreign-born judge and the greatest difference in means was among panels with a racial minority judge.

| Table 1: Panels with Minorities’ Mean Holdings in Immigration Cases (2016-2020) |
|---|---|---|---|
| All | At Least One Immigrant Judge | At Least One Female Judge | At Least One Judge of Color |
| 0.535 | 0.583 | 0.601 | 0.641 |

| Table 2: Nonminority Panels’ Mean Holdings in Immigration Cases (2016-2020) |
|---|---|---|---|
| Three U.S.-born Judges | Three Male Judges | Three White Judges |
| 0.5 | 0.6 | 0.7 |
To examine the difference in means, I recreated Table 1 using the mean holdings of panels with all nonminority judges. Table 2 shows that panels with all nonminority judges had more anti-immigrant holdings than the average across characteristics. I found that panels with all U.S.-born judges had a decrease in mean holding of -0.0153 compared to the average, panels with all male judges had a decrease in mean holding of -0.148, and panels with all white judges had a decrease in mean holding of -0.188. Parallel to my findings in Table 1, this means that the smallest difference in mean holdings was among panels categorized by immigrant status while the greatest difference in mean holding was among panels categorized by race.

Next, I investigate whether these differences in panel voting behaviors can be interpreted as the causal effect of panels having minority representation. To do this, I fit two models that regressed panels’ votes on multiple panel-level characteristics. Model 1 is a limited regression that only looks at whether panels had at least one minority judge based on gender, race, party affiliation, and foreign-born judges. Model 2 looks at the effects of having specific numbers of female judges, immigrant judges, judges of color, and Democrats presiding in panels. Table 3 shows the results of this logit analysis.

Model 1 demonstrates that having at least one female judge and at least one judge of color in immigration cases has panel effects on the case’s holding. That is, panels with at least one racial or gender minority were both more likely to hold in favor of the immigrant appellant, making the panel effect of racial and gender minorities pro-immigrant. My principal interest was in the effects on holding of at least one foreign-born judge. Model 1 shows that panels with immigrant judges were slightly more likely to hold in favor of the immigrant appellant than panels with all U.S.-born judges, but not at a statistically significant level, so a causal relationship cannot be inferred. Model 2 reaffirms the finding that the presence of foreign-born judges does not have a causal panel effect in immigration cases, as well as the finding that panels with a judge of color are more likely to be pro-immigrant. I also find that panels with one Democrat and two Republicans decreases the likelihood of granting the petition, making these panels more anti-immigrant and signaling that ideology impacts panel outcomes.

In Appendix Table A2, I performed a logit analysis for the interaction effects between foreign-born judges and judges of color, Democrats, and females. This table again demonstrates panel effects for panels with at least one judge of color and at least one female judge, confirming my results in Table 3, but did not find any significant interaction effects, meaning that neither the race, gender, nor party of immigrant judges drove changes in their panels’ holdings.

Finally, I did another logit analysis to determine whether the regional origin of the appellant made a difference in panels’ voting behaviors. I did not find this to be the case because, as is shown in Appendix Table A3, there were no statistically significant results. This indicates that the region of the appellant did not have a causal effect on the holdings of their cases.
Table 3: Logit Analysis of Panels’ Voting

<table>
<thead>
<tr>
<th>Panel Composition</th>
<th>Model 1</th>
<th>SE</th>
<th>Model 2</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-1.205</td>
<td>0.90</td>
<td>-1.304</td>
<td>0.9</td>
</tr>
<tr>
<td>At Least One Foreign-Born Judge</td>
<td>0.021</td>
<td>0.37</td>
<td>0.523</td>
<td>0.35</td>
</tr>
<tr>
<td>At Least One Female Judge</td>
<td>0.625*</td>
<td>0.35</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>One Female Judge (And Two Male Judges)</td>
<td>—</td>
<td>—</td>
<td>0.591</td>
<td>0.3</td>
</tr>
<tr>
<td>Two Female Judges (And One Male Judge)</td>
<td>—</td>
<td>—</td>
<td>0.147</td>
<td>0.5</td>
</tr>
<tr>
<td>At Least One Judge of Color</td>
<td>0.816**</td>
<td>0.36</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>One Judges of Color (And Two White Judges)</td>
<td>—</td>
<td>—</td>
<td>0.878*</td>
<td>0.4</td>
</tr>
<tr>
<td>Two Judges of Color (And One White Judge)</td>
<td>—</td>
<td>—</td>
<td>0.234</td>
<td>0.5</td>
</tr>
<tr>
<td>At Least One Democrat Judge</td>
<td>-0.52</td>
<td>0.91</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>One Democrat Judge (And Two Republican Judges)</td>
<td>—</td>
<td>—</td>
<td>-2.15**</td>
<td>1.0</td>
</tr>
<tr>
<td>Two Democrat Judges (And One Republican Judge)</td>
<td>—</td>
<td>—</td>
<td>-0.017</td>
<td>0.9</td>
</tr>
<tr>
<td>All Democrat Judges</td>
<td>—</td>
<td>—</td>
<td>0.526</td>
<td>0.9</td>
</tr>
</tbody>
</table>

N = 200

** denotes p < 0.05, * denotes p < 0.1
Discussion

Despite the theoretical expectation that foreign-born judges would affect panel-level decisions, my research did not substantiate this assertion. On the contrary, based on my data, the presence of foreign-born judges on panels had no significant pro-immigrant effect on the holdings of U.S. Court of Appeals immigration cases. Specifically, although mean holdings were more pro-immigrant among panels with foreign-born judges compared to all U.S.-born panels, the difference in means could not be interpreted as causal (Table 3). Even though this finding is categorized as null, as pointed out in previous literature, it is imperative that null findings be highlighted. In this study, my null result contributes to our understanding of the influence of minorities in the federal judiciary by suggesting that immigrant judges do not introduce pro-appellant preference in immigration cases.

While this paper’s central focus was on foreign-born judges, I also replicated previous findings by testing whether gender and race contribute to panel effects. My results show that racial and gender minorities do have panel effects on immigration holdings. In particular, I found that female judges increased the likelihood that panels would vote pro-immigrant, which is consistent with previous findings. However, regarding race, the finding that judges of color also increased the likelihood of a panel holding pro-immigrant is not consistent with the findings of Williams and Law (2012), which found that panels with racial minorities were more anti-immigrant. This discrepancy could be due to a number of methodological differences including the sample size and different date ranges, which I discuss further in my limitations section.

Taken together, my results suggest that the identity of being foreign-born influences judges during voting and deliberation differently than do racial and/or gender identities. This could be explained by findings in the literature indicating that immigrants, especially those who have become naturalized in their host countries, may tend to hold anti-immigration views. In the process of acquiring citizenship, immigrants acculturate, increasing their nationalist sentiments. As a result, these naturalized citizens report higher than expected anti-immigration attitudes and favor restrictive immigration policies. Thus, although we expect that shared experiences would lead naturalized immigrants to have favorable attitudes towards immigration, research shows that acculturation into the host country produces more critical views on immigration.

Another potential explanation for my null result hinges on the idea that foreign-born judges may feel they are under more scrutiny during immigration cases, so they conform their views to the majority opinion. Furthermore, immigrant judges may also want to avoid being tokenized for their identity, which could compel them to not be as vocal as they might otherwise have been during deliberations for immigration cases. Thus, perceived notions about immigrant judges may alter their behavior during deliberation, making them less likely to share pro-immigrant sentiments and in turn reducing their panel effects in the Court of Appeals.

Finally, immigrant judges may have different voting patterns than female judges and judges of color due to selection bias, or “systematic differences in how the considered populations were put together.” As demonstrated in Appendix Table A2, I did not find any interaction effects between holdings of panels with at least one immigrant and race, gender, or party affiliation, which suggests that these factors are not driving my null result. However, in using the party of the President that nominated each judge as a proxy for judge ideology, I did not fully capture their political attitudes towards immigration. Further, the fact that all of the foreign-born judges have become U.S. citizens and have received a high enough level of education to become a federal judge suggests that the immigrant judges in the Court of Appeals are not wholly representative of all U.S. immigrants, which may account for the discrepancy in their theoretically expected behaviors.
A comprehensive interpretation of my null result takes into account that the sample of immigrant judges in the Court of Appeals may (1) have anti-immigrant views independent of their political party, (2) are less insistent in immigration cases to avoid scrutiny, and/or (3) have experiences with immigration not representative of the average U.S. immigrant. While I believe all of these frameworks could in part explain why immigrant judges do not cause panel effects, this requires further research.

Limitations & Future Directions

The external validity of my research is limited in view of a small sample size (N=200). With a limited sample size, my dataset only included 15 dissents out of 600 total votes, which is insufficient to properly analyze individual-level differences in voting. Further, my dataset included only one case in which an immigrant judge dissented, so it cannot be used as a proxy for foreign-born individual votes. Previous papers with larger databases were able to determine individual effects of race and gender, among other variables, because their data included more dissents. As a result of being unable to compare individual voting patterns, my research is unable to untangle the causal mechanisms driving panel effects. Data on individual voting trends from foreign-born judges compared to U.S.-born judges would have allowed me to determine whether judges’ votes were endogenously affecting panel outcomes. Future research should focus on strategies to uncover causal mechanisms by constructing a larger dataset containing more dissent cases.

It is also important to note that in this paper I used the terms “immigrant judge” and “foreign-born judge” interchangeably. However, the immigrant experience is highly nuanced and simply looking at birthplace is not a direct determinant of the personal experiences had by foreign-born judges. In addition, there is a dearth of information on the paths to citizenship taken by the immigrant judges in my dataset, so the nuance of their experiences was not captured in my research. Thus, grouping all foreign-born judges together may be an oversimplification. In order to increase internal validity and uncover new findings in future studies, researchers should include more comprehensive variables regarding judges’ backgrounds and upbringings (e.g., at what age the judge immigrated to the U.S., whether their immigration case was ever appealed, whether they encountered other barriers to citizenship, the number of family members who are also immigrants, etc.).

Conclusion

Despite the limitations of my research, this study advances our understanding on the effects of a neglected form of minority representation in the federal judiciary. With the recent emphasis on immigration policy and voting patterns of minority judges, it is imperative to continue this line of research into panel-level effects of U.S. Court of Appeals cases. The finding that the presence of immigrant judges has no effect on the holding of an immigrant appellant importantly contradicts notions that immigrant judges cannot be objective in immigration cases. However, the panel effects of race and gender that were found in this research should not be taken to mean that minority judges are less objective than nonminority judges. Rather, these judges bring a unique and useful perspective to panels, making them an essential fixture of the federal bench.
Appendix Table A1: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Min</th>
<th>Max</th>
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</thead>
<tbody>
<tr>
<td><strong>Race</strong></td>
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<tr>
<td>Hispanic Defendant</td>
<td>0.61</td>
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<tr>
<td>All White Judges</td>
<td>0.36</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>One Judge of Color (And Two White Judges)</td>
<td>0.42</td>
<td>0</td>
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</tr>
<tr>
<td>Two Judges of Color (And One White Judge)</td>
<td>0.20</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>All Judges of Color</td>
<td>0.01</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Immigration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Least One Foreign-Born Judge</td>
<td>0.24</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Male Judges</td>
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<td>1</td>
</tr>
<tr>
<td>One Female Judge (And Two Male Judges)</td>
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<tr>
<td>Two Female Judges (And One Male Judge)</td>
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<tr>
<td>All Female Judges</td>
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<tr>
<td><strong>Party Affiliation</strong></td>
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<tr>
<td>All Republican Judges</td>
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<tr>
<td>One Democrat Judge (And Two Republican Judges)</td>
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<td>0</td>
<td>1</td>
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<tr>
<td>Two Democrat Judges (And One Republican Judge)</td>
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<tr>
<td>All Democrat Judges</td>
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<td>1</td>
</tr>
<tr>
<td>Variable</td>
<td>Coefficient</td>
<td>Standard Error</td>
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</tr>
<tr>
<td>----------------------------------</td>
<td>-------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>At Least One Immigrant Judge</td>
<td>0.384</td>
<td>0.726</td>
<td></td>
</tr>
<tr>
<td>At Least One Judge of Color</td>
<td><strong>0.25</strong>*</td>
<td>0.133</td>
<td></td>
</tr>
<tr>
<td>At Least One Democrat Judge</td>
<td>0.378</td>
<td>0.476</td>
<td></td>
</tr>
<tr>
<td>At Least One Female Judge</td>
<td><strong>0.239</strong>*</td>
<td>0.144</td>
<td></td>
</tr>
<tr>
<td>Immigrant × Judge of Color</td>
<td>0.413</td>
<td>0.459</td>
<td></td>
</tr>
<tr>
<td>Immigrant × Democrat</td>
<td>-0.711</td>
<td>0.703</td>
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</tr>
<tr>
<td>Immigrant × Female</td>
<td>-0.139</td>
<td>0.296</td>
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</tbody>
</table>

N = 200
### Appendix Table A2: Logit Analysis of Panel Characteristics’ Interaction Effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>p-value</th>
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<tr>
<td>At Least One Immigrant Judge</td>
<td>0.384</td>
<td>0.726</td>
<td></td>
</tr>
<tr>
<td>At Least One Judge of Color</td>
<td>0.25*</td>
<td>0.133</td>
<td></td>
</tr>
<tr>
<td>At Least One Democrat Judge</td>
<td>0.378</td>
<td>0.476</td>
<td></td>
</tr>
<tr>
<td>At Least One Female Judge</td>
<td>0.239*</td>
<td>0.144</td>
<td></td>
</tr>
<tr>
<td>Immigrant * Judge of Color</td>
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<td>0.459</td>
<td></td>
</tr>
<tr>
<td>Immigrant * Democrat</td>
<td>-0.711</td>
<td>0.703</td>
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<tr>
<td>Immigrant * Female</td>
<td>-0.139</td>
<td>0.296</td>
<td></td>
</tr>
</tbody>
</table>

### Appendix Table A3: Logit Analysis of Regional Differences in Appeals Court Decisions

<table>
<thead>
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<th>Region of Appellant</th>
<th>Coefficient</th>
<th>SE</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>European</td>
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<td>0.585</td>
<td>0.565</td>
</tr>
<tr>
<td>Latin American</td>
<td>-0.418</td>
<td>0.616</td>
<td>0.497</td>
</tr>
<tr>
<td>Region</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
</tr>
<tr>
<td>------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>East Asian</td>
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<td>0.696</td>
<td>0.986</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>0.49</td>
<td>0.807</td>
<td>0.543</td>
</tr>
<tr>
<td>African</td>
<td>-1.609</td>
<td>0.851</td>
<td>0.058</td>
</tr>
</tbody>
</table>

**Endnotes**

9. Ibid., 324.
16. Ibid., 111.
19. While there are only two immigrant judges currently sitting on the Ninth Circuit as of January 2020, there were two additional immigrant judges sitting between 2016-2020 — one retired in 2017 and the other in 2019. Furthermore, panels in the Ninth Circuit are often presided over by two Ninth Circuit judges and an extra judge from another district or circuit. There were 6 other non-Ninth Circuit immigrant judges that are included in my data who presided over Ninth Circuit immigration cases.
Minority Representation on the U.S. Court of Appeals

33 9th Circuit Judge Speaks on His Immigration Experience and Possible Reform of Immigration Appeals Process.” (2007). Law Professor Blogs Network.
34 Peresie, J. L. (2005), 1786.
38 “Ninth Circuit Appeals.” Yekrangi & Associates.
39 In this instance, the immigrant appellant’s petition was fully granted, and the immigrant judge dissented, arguing that the appeal should instead be denied.
40 Available at https://www.fjc.gov/history/judges
45 Williams and Law, 111.
46 Williams and Law, 112.
50 Williams and Law, 111.
51 Peresie, J. L. (2005), 1764.