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University of Connecticut

**"Bad Hombres" and the Bully Pulpit
A Study of Presidential Rhetoric on Social Media and Behavioral Responses of the
Immigrant Population**

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Honors Thesis
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Abstract

For years, social scientists have studied the impact of presidential rhetoric on public opinion and consumer behavior. This paper adds to the literature on presidential rhetoric by investigating how presidential statements on social media change public behavior in a reaction to these statements. President Trump's immigration policy tweets are used to examine if there is a relationship between the president's statements and changes in behavior using and Google searches. I find no relationship between the instance of a President Trump's tweet and changes in searching for related topics among both large immigrant populations and Trump supporters.

Introduction

Presidency provides a strong advantage to an individual to express their opinions and advance their political agenda. When a President focuses on certain policy issues, those issues are of top concern for the U.S. public. When a President expresses confidence in the economy, Americans usually begin to spend more. The State of the Union Address and presidential statements have been shown to significantly sway public opinion (Cohen, 1995; Cohen, 1997; Hill, 1998; Young and Perkins, 2005) and consumer behavior (Wood *et al*, 2005).

In the age of social media, the bully pulpit has evolved to a verified twitter handle, leading to more frequent and direct communication between the President and the public. As correspondence between the President and the U.S. public has become a daily, sometimes hourly, occurrence through the use of Twitter it is appropriate to understand how impactful these 280-character Presidential statements have become.

President Trump is the first U.S. President to tweet as freely and as often. President Donald Trump mainly uses his personal Twitter account rather than the official account for the U.S. president, @POTUS. This exemplifies the informal and unplanned nature of the current President's tweets as opposed to the former. The @realDonaldTrump account is a powerful force of the news cycle. Data from the Global Database of Events Language and Tone (GDELT) project found that President Trump's personal twitter account is the most-cited Twitter account in worldwide news. When President Donald Trump tweets the global press listens, but what about his constituents?

A cornerstone of the Trump presidency has been immigration reform, mainly from the Southern Border. The border wall has been a talking point of Donald Trump since the start of his campaign and has continued to be a priority of the President. The President became even stricter

on border control when a caravan of millions of Central Americans made their way towards the United States. President Trump has been highly vocal about his administration's work on immigration—often touting the victories and silencing any failures. Economic research highlighting the relationship of the immigrant population to changes in policy show that during administrations of strict immigration enforcement there is less participation in government-funded programs by legal permanent residents (Amuedo-Durantes, 2014). This type of behavior is known as a “chilling effect” and shows a conscious change in behavior in response to presidential agendas.

In this study, I exploit this reactivity of immigrant populations to presidential policy in order to measure the impact of immigration-related tweets by @realDonaldTrump. I anticipate a change in Google search behavior following such a tweet since a Google search is the first step many individuals take if they are concerned by a policy change. My findings suggest no relationship between President Trump's tweets and changes in Google search behavior in both metros with large Latin American immigrant populations and metros with a large share of Trump supporters. It appears that the strength of the bully pulpit has diminished due to the now ubiquitous nature of personal global platforms provided by social media.

The Bully Pulpit in the United States

President Theodore Roosevelt coined the phrase “bully pulpit” in reference to the superb advantage presidency lends to an individual to express their opinions and advance their political agenda. Where past U.S. presidents saw the executive powers as limited to those enumerated in the Constitution, Theodore Roosevelt saw the presidency as not only a political office, but as a platform for persuasion and advocacy. Modern social scientists have confirmed that the Roosevelt was correct.

Presidential rhetoric, specifically State of the Union addresses and broadcasted speeches, has been found to strongly influence the public's opinion. For example, presidential attention to economic, foreign, and civil rights policy directly leads to an increase in public concern for those policies (Cohen, 1995; Cohen, 1997; Hill, 1998). Furthermore, Presidential statements affect perceptions of U.S. economic performance, thus influencing consumer confidence (Wood *et al.*, 2005). The results from these studies suggest the strength of the president's word.

The Golden Age of Television gave presidential speeches a broader reach. From 1953-2002, the amount of time dedicated to specific policy issues during the widely televised State of the Union Address had positive and significant relationship to public opinion and concern on the policy (Young and Perkins, 2005). However, the modern television climate is making televised presidential rhetoric less influential over the public agenda. With more channels and different content, people have the option to either watch the president or watch something else. When given this choice, people are more likely to watch something else (Young and Perkins, 2005). Televised presidential addresses were found to have little or no effect following 2002 (Edwards, 2003). The dawn of social media has created a new mode of communication between the president and the people of the United States, which must be evaluated for influence.

Immigration Policy of Trump Administration

On June 16th, 2015, Donald J. Trump announced his candidacy for President of the United States. One of the first topics he mentioned was U.S. relations with Mexico and Central and South America. He explains, "They're sending people that have lots of problems, and they're bringing those problems with us. They're bringing drugs. They're bringing crime. They're rapists. And some, I assume, are good people." The presidential candidate goes on to explain his intention for strict immigration law enforcement if and when he is in the Oval Office.

Within moments of his entrance on to the stage of public service, Donald Trump made it clear that he views migrants from Latin America as a threat to the people of the United States and the status of the country.

As President, immigration has been one of the Trump's main areas of focus. On the White House website¹, immigration is listed as one of the five main issues the administration focuses on. While unsuccessful in signing legislation to advance his immigration reform vision, President Trump has been able to advance immigration policy through executive order.

The most expansive is the executive order on interior enforcement that was issued by President Trump on January 25th, 2017. This order a new interior enforcement regime that expanded the classes of noncitizens that were eligible for deportation. Furthermore, it removed the prosecutorial discretion of ICE, which prioritized removal of noncitizens with criminal convictions, recent illegal border crossing, or had recently been ordered to be removed. The January 25th, 2017 executive order also limited funding to Sanctuary Cities and placed limits on visas for nationals of recalcitrant countries.

Other executive orders have been made to make living in the United States legally through visa ownership more difficult. On April 27th, 2017, an executive order limited the privacy rights of temporary visa holders and unauthorized immigrants. This order allowed the Department of Homeland Security to create new policy on the collection, use, and dissemination of personally identifiable information of the effected populations. The policy made personal information less accessible to the individuals whose information it is, thus making it difficult to change incorrect information. Additionally, an executive order made on October 26th, 2017

¹ Based off of this website: <https://www.whitehouse.gov/> visited on January 3rd, 2020

directed ICE to take strict enforcement action against noncitizens, even if they had pending U visa applications.

From the campaign trail to the White House, Donald Trump's vision for the U.S. immigration policy has been simple: make it harder to get in, and easier to get sent out. This agenda has been reinforced through executive orders, as well as continued public statements regarding the immigrant population. The most commonly used platform by the President is twitter account.

@realDonaldTrump

Since Twitter's establishment in 2006, President Donald Trump is the first United States President to use the social media platform as candidly and as often. As of February 2020, @realDonaldTrump has tweeted over 45,000 times, with his tweets reaching 71.9 million followers. In addition to his large internet following, Donald Trump's twitter gets regular news coverage as well, reaching an even broader audience. As of April 20th, 2016, the GDELT Project² has tracked the citations of tweets from the @realDonaldTrump account in online news media. The project identified 868,539 articles that cited the account, and about 31% of the President's tweets being circulated in the news. His constant internet presence paired with title of 45th President of the United States of America has made Donald Trump's twitter the most cited personal account in worldwide news with 1,120, 594 citations from 2016-2019, leading ahead of Asian News International by 1,025,228 citations. The reach of the President's twitter is vast. Rather than giving speeches that can be edited, taken out of context, or aired on specific

² The GDELT Project monitors broadcast, print, and web news from all over the world in over 100 languages. It utilizes Google Jigsaw to compile all of this data and identifies people, locations, organizations, themes, emotions, quotes, images, and events mentioned in the press of all mediums all over the world. For more information, <https://www.gdelproject.org/>

channels, the President has found a mode of communication that allows him to relay his hopes, fears, and intentions with the public every day with 280 characters that are hard to misconstrue.

President Trump has been active on Twitter regarding immigration and border security policy. Since his inauguration in January 2017 until December 2019, there have been 340 tweets from @realDonaldTrump mentioning either immigration policy, immigrant populations, or border security. In these tweets, the President mentions specific strict immigration policy enforcement 62 times. It is these tweets that will be used for evaluation.

“Chilling Effects” and U.S. Immigrant Population

Strict enforcement of immigration policy has “chilling effects” on legal immigrant use of state-funded programs. “Chilling” is a phenomenon where there is a disproportionate decline in program participation among immigrants following welfare reform. “Chilling effects” are residual complications that come with immigration policy and must be taken into consideration when assessing effectivity. Following reform, immigrants who are still eligible to participate in programs, such as Medicaid, do not take advantage of societal safety nets. The most vulnerable population affected by chilling are documented children of undocumented parents. For each one log-point increase in enforcement activity in one’s local area reduces Medicaid participation by 8.7 percentage points for children of low socio-economic status with undocumented parents (Watson, 2014). Children’s lack of access to healthcare leads to public health concerns as these children do not receive proper vaccines. In addition, undocumented parents will not bring their children to the hospital if the child’s condition is serious. This is more costly to the system and more detrimental to the health of the child than if they were able to receive preventative care (Watson, 2014). Strict enforcement measures also impede on children’s education. On average, a yearly increase in immigration enforcement has raised these children’s likelihood of dropping

out by 10.8% (Amuedo-Durantes and Lopez, 2015). The lack of education among documented children leads to additional systematic inequalities such as employment opportunities and future income disparities. The worry associated with deportation seeps into the lives of immigrants and limits the opportunities of their children, making assimilation harder and placing the welfare of future generations in peril.

Due to the established chilling effects of strict enforcement immigration policy, it is a concern that the President's tweets implying strict enforcement policies will lead to behaviors that are ultimately inefficient and are made out of fear. The first step in understanding this potential problem is to prove that President Trump's tweets about immigration policy create Google search activity around the topic.

Data

In order to test the effect of a tweet by President Trump on Google Search behavior across the country, across demographic, and across political affiliation, data sets from various sources were used to create each variable of the model.

Google search trends for the searches "Trump Immigration Policy (topic)," "Green Card (topic)," "U.S. Immigration and Customs Enforcement (agency)," and "U.S. Citizenship and Immigration Services (agency)" were downloaded by metro through the Google trends website. The data reflects searches that were related to the topic or agency, thus accounting for use of acronyms, misspellings, and various wordings. Furthermore, these generalized searches cast a wide net to catch those looking deeper into the President's policy intentions, those fearing deportation, and those planning to apply for citizenship or legal permanent residence. The searches were downloaded from 2015 to 2020; however, only results from November 2016 through December 2019 were used in the analysis. Trends for each search were downloaded

separately and by metro. The volumes of searches are placed in bins with a value of 100 indicating highest searching volume across metros by date³.

The share of Latin American immigration population by metro come from pooled results from the U.S. Census Bureau's 2014-2018 American Community Survey and the Migration Policy Institute. Latin American immigrant populations are specifically used since President Trump is mainly focused on immigration from the Southern Border. The highest ten and lowest ten immigrant population density metros were used to inform which metro search volumes were downloaded. If one of the metros from the list were not available on Google Trends, the 11th or 12th metro was used. Furthermore, the immigrant population data was used to inform a dummy variable "top_{all}" in which metros having the highest population size were assigned value 1, and those with the lowest population size were assigned value 0. This data and subsequent variable allowed me to compare search volume across the nation and across population demographics. The list of the metros used and their population sizes can be found in Appendix B Table 1.

The date of tweet, or "DOT" variable is a dummy variable assigned 1 if a selected tweet occurred during this week, 0 if there was no tweet. The Twitter account used was the @realDonaldTrump. The criteria used to pick tweets was the use of the words: Immigrant, Immigration, wall, border, migrant, caravan, Mexico, MS-13, or aliens. These tweets were then sorted for context. Ultimately, tweets about policy plans and/or enforcement were left. The context of the tweets is important as the goal of the project is to capture a specific population's reactions to policy statements made by the President on an issue that would impact their lives. For example, a tweet celebrating the beginning of ICE removals of illegal immigrants would spark more of a reaction out of those facing possible deportation than a mention of an

³ Further information on Google searches indicators can be found in Appendix A

immigration bill in a tweet mainly about Nancy Pelosi. The tweet texts and dates can be found in the Appendix B Table 2.

In order to discern political affiliation by metro, election results of the 2016 election were used. The data came from the interactive “Extremely Detailed Map of the 2016 Election”⁴. This map contained vote shares between Trump and Clinton by precinct, county, and state. Counties were matched with the metro areas used by Google Trends. The combination of counties within a region were pooled together to calculate the share of votes for Trump in the metro in the 2016 election. This data became the “trumpshare” variable.

Methods

The goal of this project was to assess the impact of a tweet by President Trump on Google search trends. In order to capture this effect, I created an event-based difference in difference model. This model allowed me to evaluate the impact of a tweet in relation to immigrant population size in a given metro as well as political affiliation in the area.

For all search phrases I used the following model:

$$S_{i,m,t} = \sum_{\tau=\{-3,+3\}\setminus\{-1\}} \beta_{\tau} Tweet_{i,m,t-\tau} + \sum_{\tau=\{-3,+3\}\setminus\{-1\}} \theta_{\tau} Top * Tweet_{i,m,t-\tau} + \alpha Trend_t + \alpha_m + \alpha_i + e_{i,m,t}$$

where $S_{i,m,t}$ is the search volume for a phrase observed in city i , month m and week t . $Tweet$ is a binary variable equal to one when a tweet occurs in the corresponding week and zero when a tweet does not occur. Top refers to a binary variable equal to one when a metro is in the top ten

⁴ “Extremely Detailed Map of the 2016 Election” was published by the New York Times on July 25th, 2018. It was created by Matthew Bloch, Larry Buchanan, Josh Katz, and Kevin Quealy. This is an interactive map with election results by state, county, and precinct. Access the map here: <https://www.nytimes.com/interactive/2018/upshot/election-2016-voting-precinct-maps.html>

of immigrant population sizes and zero when a metro is in the bottom ten of immigration population sizes. The equation includes controls for trend as well as fixed effects by month and city. Fixed effects by month is necessary to account for seasonal patterns that occur around annual events such as federal deadlines for applications and school registration. Fixed effects by city accounts for variations among cities such as local governance and internet accessibility.

The parameters of interest are θ_τ for $\tau = \{-3, 3\} \setminus \{-1\}$ as the differential search volume before and after the tweet in cities with a high share of migrants (Top) relative to cities with the lowest shares and the week before the tweet ($\tau = -1$, the omitted category).

To assess the impact of political affiliation, the model is re-estimated replacing Top with Trumpshare, the share of votes for Trump in a given metro in the 2016 election. As before, θ , reflects the change in search volumes in the two weeks leading up to the tweet, the week of the tweet, and the three weeks after the tweet in relation to the share of votes were cast for Donald Trump in the 2016 election per metro area.

Results

I start my analysis testing whether there were major changes in search volume in the weeks after a tweet compared to the weeks before, specifically in metros with large immigrant populations. I find significant changes in search volumes in the weeks after tweets; however, there were such instances among both low and high immigration population metros. This was consistent among all search phrases. Further, these results showed significant changes in searching before and after the week of the tweet. The complete results from this analysis can be seen in the Appendix B Tables 3-10. The erratic nature of these results indicated the need for a more complex model to understand the direct effect of a tweet and eliminating confounding

factors like cyclical patterns and irregularities among metros. Thus, leading to the use of the difference in difference model.

The results for the difference in difference model are as follows:

Table 1: Changes in Search Volume by Immigrant Population per Metro

	Dependent variable: Search volume for phrase			
	Trump Immigration Policy	U.S. Citizenship and Immigration Services	U.S. Immigration and Customs Services	Green Card
T-3	-0.490 [0.751]	-0.182 [0.902]	-2.591*** [0.844]	-1.202 [0.923]
T-2	-1.157 [0.775]	0.016 [0.930]	1.279 [0.870]	-0.174 [0.948]
Week of Tweet	1.593** [0.768]	-0.653 [0.921]	4.266*** [0.863]	0.093 [0.946]
T+1	3.124*** [0.755]	-1.056 [0.906]	6.251*** [0.848]	-0.463 [0.934]
T+2	0.461 [0.756]	-1.321 [0.907]	6.411*** [0.849]	1.095 [0.929]
T+3	1.540** [0.751]	-0.806 [0.902]	4.275*** [0.844]	-0.068 [0.937]
Top*T-3	-0.533 [1.017]	-1.111 [1.221]	2.508** [1.143]	0.607 [1.237]
Top*T-2	1.237 [1.016]	0.220 [1.219]	-0.877 [1.142]	-1.014 [1.230]
Top*Week of Tweet	0.516 [1.017]	-0.015 [1.221]	0.639 [1.143]	0.418 [1.238]
Top*T+1	-0.505 [1.022]	1.764 [1.226]	-2.277** [1.148]	0.140 [1.243]
Top*T+2	0.990 [1.023]	0.736 [1.227]	-1.640 [1.149]	-0.659 [1.245]
Top*T+3	-0.947 [1.019]	1.775 [1.224]	-1.612 [1.146]	-0.082 [1.250]
<i>N</i>	2160	2160	2160	1775
<i>R</i> ₂	0.118	0.638	0.358	0.218
Mean of dep var	5.493	48.082	16.242	26.363

Note: Not included above are results by metro, month, and trend, which were included in the model. Standard errors in brackets. Standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 2: Changes in Search Volume by Local Support of Trump

	Dependent variable: Search volume for phrase			
	Trump Immigration Policy	U.S. Citizenship and Immigration Services	U.S. Immigration and Customs Services	Green Card
T-3	-1.678 [1.892]	-1.065 [2.209]	-0.413 [2.113]	-3.159 [2.385]
T-2	0.067 [1.900]	-3.128 [2.218]	2.465 [2.121]	-1.843 [2.379]
Week of Tweet	3.923** [1.899]	-1.330 [2.217]	9.012*** [2.120]	-0.236 [2.397]
T+1	0.404 [1.901]	1.628 [2.219]	0.595 [2.122]	0.948 [2.400]
T+2	3.386* [1.903]	1.112 [2.221]	5.224** [2.124]	-0.392 [2.399]
T+3	-0.459 [1.896]	2.060 [2.213]	4.464** [2.117]	-1.189 [2.420]
TrumpShare*T-3	1.910 [3.751]	0.702 [4.512]	-1.956 [4.273]	4.655 [4.686]
TrumpShare*T-2	-1.256 [3.746]	6.968 [4.506]	-3.438 [4.268]	2.344 [4.655]
TrumpShare*Week of Tweet	-4.295 [3.750]	1.434 [4.511]	-9.369** [4.272]	1.118 [4.692]
TrumpShare*T+1	5.113 [3.768]	-3.858 [4.532]	9.561** [4.292]	-2.737 [4.708]
TrumpShare*T+2	-5.036 [3.771]	-4.420 [4.536]	0.778 [4.296]	2.351 [4.716]
TrumpShare*T+3	3.162 [3.760]	-4.237 [4.522]	-2.105 [4.283]	2.220 [4.746]
<i>N</i>	2160	2160	2160	1775
<i>R</i> ₂	0.119	0.638	0.356	0.218
Mean of dep var	5.493	48.082	16.242	26.363

Note: Not included above are results by metro, month, and trend, which were included in the model. Standard errors in brackets. Standard errors in brackets. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The searches for “Trump Immigration Policy” significantly increased by 1.593 units (Table 1) the week of a tweet compared to the week prior and increased by 3.124 units (Table 1) the week after the tweet compared to the week prior to the tweet. This could indicate a spark in interest among the United States public in immigration policy following a remark by the President. However, the data shows no evidence that the observed significant changes occurs specifically in metros with large immigrant populations (Table 1). Despite the fact that I focus on metros with large immigrant populations by interacting the top and plus/minus variables, I still cannot distinguish who is making the searches. Furthermore, when evaluating the impact of a tweet by share of Trump votes per metro, there is no significant changes in search volumes when local support of the President is included (Table 2).

Searches for both “Green Card” and “U.S. Citizenship and Immigration Services” were not found to be significantly affected by the occurrence of a tweet by the President, both among immigrant population and support of the President measures. The lack of measurable change in volume for these search phrases could be more so an indicator of lack of statistical power rather than lack of potential relationship.

The searching phrase with the most activity was “U.S. Immigration and Customs Enforcement Agency”. In relation to the week prior to the tweet, searches significantly increased by 4.266 units the week of the tweet, 6.251 units the week after the tweet, 6.411 units two weeks after the tweet, and 4.275 units three weeks after the tweet (Table 1). The U.S. Immigration and Customs Enforcement Agency, ICE, is often mentioned in the President’s tweets. Furthermore, ICE carries out deportations and holds illegal immigrants in detention centers. The nature and reputation of this agency would prompt one to believe that the observed increase in search

activity would be found mainly in areas with large immigrant populations. I do not find this to be the case. I find no significant increase in searching among metros with large immigrant populations during the week of the tweet as compared to the week prior. Even more perplexing is a significant decrease of 2.277 units in searching in such metros the week after the tweet in relation to the week before the tweet (Table 1). When evaluating searches for ICE across metros of various levels of Trump support, there are no clear answers. There is a significant decrease of 9.369 units during the week of a tweet, followed by a significant increase of 9.561 units the week after a tweet (Table 2). While there is significant activity in searches for ICE around tweets, this model cannot discern from where or from whom these changes are coming, thus the results do not provide definite reason for such variations.

Conclusion

This paper examines the impact of tweets made by the President on the public's Google search activity. Historically, Presidential statements have strongly influenced public opinion. It was a special occasion when the President addressed the public and could be heard and seen on the radio and the television. Now, the President is able to correspond more frequently. The results found in this study show that on average, individuals do not react to Presidential statements made via Twitter—whether or not a statement may directly affect them or if they support the President.

There are many reasons as to why Google searches are not impacted by the instance of the President's tweet. It could be the case that the President's tweets have a diminishing effect. Future research should explore the changes in search volume in the beginning of a Presidential term as compared to the middle and end of a Presidential term. Another explanation for my results could be the fact that the Presidency is no longer a "bully" pulpit. Now every individual

could make their opinions known to the world, every elected figure has their own direct following, and anyone could make a podcast or web series claiming to be a news source. Since President Trump's twitter is highly cited in the news, it could be the case that Google searches occur more when the President's tweet is the center of a story on the news. Americans could also be inundated with news on every platform and never bother to Google search what they heard or saw ten times that day. Google searches, while the first step in most decision-making, perhaps is not capable of measuring the full reaction to a presidential tweet.

Future comparisons among U.S. Presidents once more U.S. Presidents begin to use Twitter would be beneficial to determine if these results are a function of Trump's controversial reputation, or simply the result of diminishing returns. More research could investigate diminishing returns throughout a presidency comparing the changes in search history from the beginning, middle, and end.

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Appendix A: Understanding Google Search Indicators

Google Trends provides a data sample of Google searches made for a given topic or phrase during a given amount of time. The sample is anonymized, categorized, and aggregated. The samples used can either consist of real-time data from the past seven days, or non-realtime data starting from 2004. Due to the high magnitude of Google searches made daily, samples allow anyone to quickly and easily download search data.

Google Trends normalizes search data to the time and location of a query by the following process. Each data point is divided by the total searches of the geography and time range it represents to compare relative popularity. Then, the resulting numbers are scaled on a range of 0 to 100 based on a topic's proportion to all searches on all topics. Therefore, when this study refers to "search volume", it is referring to the scaled value of searches from relative popularity.

All information on this page and further information on Google Trends Data can be found here: <https://support.google.com/trends/?hl=en#topic=6248052>

Appendix B Table 1: Metros Used and Corresponding Immigrant Population Size ⁵

Immigrant population per 100,000 residents	Immigrants	Metropolitan Statistical Area (MSA)	Total MSA population
428.555	2352	Youngstown-Warren-Boardman, OH-PA	548821
481.946	3390	Akron, OH	703398
497.542	11683	Pittsburgh, PA	2348143
570.775	3001	Portland-South Portland, ME	525776
623.599	6174	Urban Honolulu, HI	990060
674.968	3072	Springfield, MO	455133
754.952	4569	Toledo, OH	605204
768.248	2422	Evansville, IN-KY	315263
779.255	6241	Dayton, OH	800893
822.183	4503	Spokane-Spokane Valley, WA	547688
14749.703	978821	Houston-The Woodlands-Sugar Land, TX	6636208
15800.051	138842	Bakersfield, CA	878744
16880.965	74782	Santa Maria-Santa Barbara, CA	442996
16982.508	42164	Yakima, WA	248279
18073.077	2396768	Los Angeles-Long Beach-Anaheim, CA	13261538
18591.882	66331	Naples-Immokalee-Marco Island, FL	356774
19266.405	88396	Visalia-Porterville, CA	458809
22855.729	96040	Brownsville-Harlingen, TX	420201
23786.473	199456	El Paso, TX	838527
26087.069	70337	Laredo, TX	269624
30266.119	54466	El Centro, CA	179957
23800.927	103098	Salinas, CA	433168
34618.982	2083990	Miami-Fort Lauderdale-West Palm Beach, FL	6019790

⁵ Migration Policy Institute tabulation of data from the U.S. Census Bureau's pooled 2014-2018 American Community Survey.

Appendix B Table 2: Trump Tweet Text and Dates

Tweet Date	Text
4/18/17	The weak illegal immigration policies of the Obama Admin. Allowed bad MS 13 gangs to form in cities across U.S. We are removing them fast!
7/27/17	Big progress being made in ridding our country of MS 13 gang members and gang members in general. MAKE AMERICA SAFE AGAIN!
11/17/17	Together, we're going to restore safety to our streets and peace to our communities, and we're going to destroy the vile criminal cartel, MS 13, and many other gangs...
12/19/17	The Democrats have been told, and fully understand, that there can be no DACA without the desperately needed WALL at the Southern Border and an END to the horrible Chain Migration & ridiculous Lottery System of Immigration etc. We must protect our Country at all cost!
1/4/18	Thank you to the great Republican Senators who showed up to our meeting on immigration reform. We must BUILD THE WALL, stop illegal immigration, end chain migration & cancel the visa lottery. The current system is unsafe & unfair to the great people of our country- time for change!
1/11/18	The Democrats seem intent on having people and drugs pour into our country from the Southern Border, risking thousands of lives in the process. It is my duty to protect the lives and safety of all Americans. We must build a Great Wall, think Merit and end Lottery & Chain. USA!
1/12/18	The so-called bipartisan DACA deal presented yesterday to myself and a group of Republican Srenators and Congressmen was a big step backwards. Wall was not properly funded, Chain & Lottery were made worse and USA would be forced to take large numbers of people from high crime...
2/15/18	The Schumer-Rounds-Collins immigration bill would be a total catastrophe. @DHSgov says it would be "the end of immigration enforcement in America." It creates a giant amnesty (including for dangerous criminals), doesn't build the wall, expands chain migration, keeps the visa...
2/23/18	MS 13 gang members are being removed by our Great ICE and Border Patrol Aegnts by the thousands, but these killers come back in from El Salvador, and through Mexico, like water. El Salvador just takes our money, and Mexico must help MORE with this problem.We need The Wall!
4/2/18	Mexico is making a fortune on NAFTA...they have very strong border laws--ours are pathetica. With all of the money they make from the U.S., hopefully they will stop people from coming through their country and into ours, at least until Congress changes our immigration laws!
4/2/18	As ridiculous as it sounds, the laws of our country do not easily allow us to send those crossing our Southern Border back where they came from. A whole big wasted procedure must take place. Mexico & Canada have tough immigration laws, whereas ours are an Obama joke. ACT Congress
4/2/18	Honduras, Mexico and many other countries that the U.S. is very generous to, sends many of their people to our country through our WEAK IMMIGRATION POLICIES. Caravans are heading here. Must pass though laws and build the WALL. Democrats allow open borderes, drugs, and crimes!

4/4/18	Our Border Laws are very weak while those of Mexico & Canada are very strong. Congress must change these Obama era, and other, laws NOW! The Democrats stand in our way-they want people to pour into our country unchecked...CRIME! We will be taking strong action today.
4/30/18	The migrant 'caravan' that is openly defying our border shows how weak & ineffective U.S. immigration laws are. Yet Democrats like Jon Tester continue to support the open borders agenda-Tester even voted to protect Sanctuary Cities. We need lawmakers who will put American First.
5/4/18	Our Southern Border is under siege. Congress must act now to change our weak and ineffective immigration laws. Must build a Wall. Mexico, which has a massive crime problem, is doing little to help!
5/18/18	Fake News Media had me calling Immigrants, or Illegal Immigrants, "Animals." Wrong! They were begrudgingly forced to withdraw their stories. I referred to MS 13 Gang Members as "Animals," a big difference-and so true. Fake News got it purposely wrong, as usual!
5/23/18	Crippling loopholes in our laws have enabled MS 13 gang members and other criminals to infiltrate our communities-and Democrats in Congress REFUSE to close these loopholes, including the disgraceful practice known as Catch-and-Release. Democrats must abandon their resistance...
5/26/18	Put pressure on the Democrats to end the horrible law that separates children from their parents once they cross the Border into the U.S. Catch and Release, Lottery and Chain must also go with it and we MUST continue building the WALL! DEMOCRATS ARE PROTECTING MS 13 THUGS
6/15/18	The Democrats are forcing the breakup of families at the Border with their horrible and cruel legislative agenda. Any Immigration Bill MUST HAVE full funding for the Wall, end Catch & Release, Visa Lottery and Chain, and go to Merit Based Immigration. Go for it! WIN!
6/18/18	Why don't the Democrats give us the votes to fix the world's worst immigration laws? Where is the outcry for the killings and crime being caused gangs and thugs, including MS 13, coming into our country illegally?
6/19/18	Democrats are the problem. They don't care about crime and want illegal immigrants, no matter how bad they may be, to pour into and invest our Country, like MS 13. They can't win on their terrible policies, so they view them as potential voters!
6/22/18	80% of Mexico's Exports come to the United States. They totally rely on us, which is fine with me. They do have, though, very strong Immigration Laws. The U.S. has pathetically weak and ineffective immigration laws that the democrats refuse to help us fix. Will speak to Mexico!
6/30/18	The Democrats are making a strong push to abolish ICE, one of the smartest, toughest and most spirited law enforcement groups of men and women that I have ever seen. I have watched ICE liberate towns from the grasp of MS-13 & clean out the toughest situations. They are great!
7/3/18	When we have an "infestation" of MS 13 GANGS in certain parts of our country, who do we send to get them out? ICE! They are tougher and smarter than these rough criminal elements that bad immigration laws allow into our country. Dems do not appreciate the great job they do!
7/5/18	A vote for Democrats in November is a vote to let MS 13 run wild in our communities, to let drugs pour into our cities, and to take jobs and benefits away from hardworking Americans. Democrats want anarchy, amnesty and chaos-Republicans want LAW, ORDER and JUSTICE!

7/5/18	Every day, the brave men and women of ICE are liberating communities from savafe gangs like MS 13. We will NOT stand for these vile Democrat smears in law enforcement. We will always stand proudly with the BRAVE HEROES of ICE and BORDER PATROL!
7/29/18	I would be willing to "shut down" government if the Democrats do not give us the votes for Border Security, which includes the Wall! Must get rid of Lottery, Catch & Release etc. and finally go to system of Immigration based on MERIT! We need great people coming into our Country!
7/30/18	We must have Border Security, get rid of Chain, Lottery, Catch & Release Sanctuary Cities-go to Merit based Immigration. Protect ICE and Law Enforcement and, of course, keep building, but much faster, THE WALL!
7/31/18	One of the reasons we need Great Border Security is that Mexico's murder rate in 2017 increased by 27% to 31,174 people killed, a record! The Democrats want Open Borders. I want Maximum Border Security and respect for ICE and our great Law Enforcement Professionals!
10/22/18	Every time you see a caravan, or people illegally coming, or attempting to come, into our country illegally, think of and blame the Democrats for not giving us the votes to change our pathetic Immigration Laws! Remember the Midterms! So unfair to those who come in legally.
10/25/18	To those in the Caravan, turnaround, we are not letting people into the United States illegally. Go back to your Country and if you want, apply for citizenship like millions of others are doing!
10/29/18	Many Gang Members and some very bad people are mixed into the Caravan heading to our Southern Border. Please go back, you will not be admitted into the United States unless you go through the legal process. This is an invasion of our country and our Military is waiting to for you!
12/27/18	There is right now a full scale manhunt going on in California for an illegal immigrant accused of shooting and killing a police officer during a traffic stop. Time to get tough on Border Security. Build the Wall!
1/20/19	No, Amnesty is not a part of my offer. It is a 3 year extension of DACA. Amnesty will be used only on a much bigger deal, whether on immigration or something else. Likewise there will be no big push to remove the 11,000,000 plus people who are here illegally-but be careful Nancy!
1/20/19	Wow, just heard that my poll numbers with Hispanics has gone up 19%, to 50%. That is because they know the Border issue better than anyone, and they want Security, which can only be gotten with a Wall.
1/27/19	We are not even into February and the cost of illegal immigration so far this year is \$18,959,495,168. Cost Friday was \$603,331,392. There are at least 25,772,342 illegal aliens, not the 11,000,000 that have been reported for years, in our Country. So ridiculous! DHS Never thought I'd say this but I think @johnrobertsFox and @GillianHTurner @FoxNewshave even less understanding of the Wall negotiations than the folks at FAKE NEWS CNN & NBC! Look to final results! Don't know how my poll numbers are so good, especially up 19% with Hispanics?
3/31/19	The Democrats are allowing a ridiculous asylum system and major loopholes to remain as a mainstay of our immigration system. Mexico is likewise doing NOTHING, a very bad combination for our Country. Homeland Security is being sooo very nice, but not for long!
4/1/19	Democrats, working with Republicans in Congress, can fix the Asylum and other loopholes quickly. We have a major National Emergency at our Border. GET IT DONE NOW!
4/6/19	...In the meantime, the Democrats in Congress must help the Republicans (we need their votes) to end the horrible, costly and foolish loopholes in our Immigration Laws. Once that happens, all will be smooth. We can NEVER allow Open Borders!

4/9/19	The Democrats must end the loopholes on immigration. So easy to solve!
4/12/19	Due to the fact that Democrats are unwilling to change our very dangerous immigration laws, we are indeed, as reported, giving strong considerations to placing Illegal Immigrants in Sanctuary Cities only....
4/12/19	Another Fake Story on @NBCNews that I offered Pardons to Homeland Security personnel in case they broke the law regarding illegal immigration and sanctuary cities. Of course this is not true. Mainstream Media is corrupt and getting worse, if that is possible, every day!
4/13/19	Democrats must change the Immigration Laws FAST. If not, Sanctuary Cities must immediately ACT to take care of the Illegal Immigrants - and this includes Gang Members, Drug Dealers, Human Traffickers, and Criminals of all shapes, sizes and kinds. CHANGE THE LAWS NOW!
4/29/19	If the Democrats don't give us the votes to change our weak, ineffective and dangerous Immigration Laws, we must fight hard for these votes in the 2020 Election!
5/2/19	I am pleased to inform all of those that believe in a strong, fair and sound Immigration Policy that Mark Morgan will be joining the Trump Administration as the head of our hard working men and women of ICE. Mark is a true believer and American Patriot. He will do a great job!
5/16/19	We are here on this beautiful spring day to unveil our plan to create a fair, modern & LAWFUL system of immigration for the U.S. If adopted, our plan will transform America's immigration system into the pride of our Nation and the envy of the modern world.
5/17/19	Border Patrol is apprehending record numbers of people at the Southern Border. The bad "hombres," of which there are many, are being detained & will be sent home. Those which we release under the ridiculous Catch & Release loophole, are being registered and will be removed later!
5/17/19	Will the Democrats give our Country a badly needed immigration win before the election? Good chance!
6/16/19	Florida Governor Ron DeSantis just signed Bill banning Sanctuary Cities in State, & forcing all law enforcement agencies to cooperate with Federal Immigration authorities. Bill prohibits local Gov't from enacting Sanctuary policies that protect undocumented immigrants...
6/17/19	Next week ICE will begin the process of removing the millions of illegal aliens who have illicitly found their way into the United States. They will be removed as fast as they come in. Mexico, using their strong immigration laws, is doing a very good job of stopping people.....
6/22/19	At the request of Democrats, I have delayed the Illegal Immigration Removal Process (Deportation) for two weeks to see if the Democrats and Republicans can get together and work out a solution to the Asylum and Loophole problems at the Southern Border. If not, Deportations start!
6/23/19	I want to give the Democrats every last chance to quickly negotiate simple changes to Asylum and Loopholes. This will fix the Southern Border, together with the help that Mexico is now giving us. Probably won't happen, but worth a try. Two weeks and big Deportation begins!
6/26/19	The Democrats would save many lives if they would change our broken and very DANGEROUS Immigration Laws. It can be done instantly!
6/27/19	Bipartisan Humanitarian Aid Bill for the Southern Border just passed. A great job done by all! Now we must work to get rid of the Loopholes and fix Asylum. Thank you also to Mexico for the work being done on helping with Illegal Immigration - a very big difference!
7/3/19	Our Border Patrol people are not hospital workers, doctors or nurses. The Democrats bad Immigration Laws, which could be easily fixed, are the problem. Great job by Border Patrol, above and beyond. Many of these illegals aliens are living far better now than where they.....

7/15/19	The Obama Administration built the Cages, not the Trump Administration! DEMOCRATS MUST GIVE US THE VOTES TO CHANGE BAD IMMIGRATION LAWS.
7/18/19	Most of the MS-13 Gang members indicted & arrested in L.A. were illegal aliens, 19 of 22. They are said to have killed many people in the most brutal fashion. They should never have been allowed in our Country for so long, 10 years. We have arrested and deported thousands....
7/27/19	Democrats don't care about Border Security. They refuse to give the votes necessary to fix the Loopholes and Asylum. Would be so easy! They want Open Borders, which means CRIME,CRIME,CRIME!
7/30/19	Despite the Democrats wanting very unsafe Open Borders & refusing to change the Loopholes & Asylum, tremendous progress is being made the the Southern Border. We all waited because we assumed the Dems would ultimately be forced to change the horrible Immigration Laws.They didn't!
8/13/19	Great interview of Ron Vitiello, Former Acting Ice Director, by @JesseBWatters, on @FoxNews, about all of the work that is being (& has been) done on our Southern Border. Thanks Ron, terrific job! Now if only the Democrats would fix the Loopholes & Asylum.
9/13/19	Great news about the work we are doing on illegal immigration!

Appendix B Table 3: Changes in Search Volume Trends for U.S. Immigration and Customs Enforcement Agency in 10 Largest Immigrant Population Metros

	(1) top10a vg	(2) Santa Barbara CA	(3) Los Angeles CA	(4) Naples FL	(5) Visalia CA	(6) Brownsville TX	(7) El Paso TX	(8) Salinas CA	(9) Miami FL	(10) Laredo TX	(11) El Centro CA
T+1	5.144* * [2.018]	7.183*** [2.661]	4.127 [2.593]	7.840*** [2.550]	7.522** [3.441]	5.729** [2.717]	3.377* [1.767]	3.657* [1.908]	5.315* * [2.202]	1.347 [3.044]	5.338 [3.779]
T+2	5.159* * [2.029]	5.154* [2.676]	4.497* [2.608]	8.388*** [2.564]	5.986* [3.460]	4.684* [2.731]	3.997** [1.776]	4.685** [1.918]	7.396* ** [2.214]	2.510 [3.061]	4.296 [3.800]
T+3	4.236* * [2.023]	3.856 [2.668]	4.262 [2.600]	4.449* [2.556]	1.998 [3.450]	7.089** [2.723]	5.044** * [1.771]	2.994 [1.913]	5.874* ** [2.208]	3.812 [3.052]	2.986 [3.789]
T-1	6.648* ** [2.018]	7.352*** [2.661]	8.159*** [2.593]	8.538*** [2.550]	9.224** * [3.441]	9.468*** [2.717]	3.690** [1.767]	5.449** * [1.908]	6.930* ** [2.202]	1.831 [3.044]	5.838 [3.779]
T-2	1.991 [2.029]	1.116 [2.676]	3.913 [2.608]	0.326 [2.564]	2.712 [3.460]	1.864 [2.731]	-0.891 [1.776]	2.500 [1.918]	3.848* [2.214]	6.603** [3.061]	-2.079 [3.800]
T-3	0.467 [2.023]	1.916 [2.668]	-0.267 [2.600]	1.628 [2.556]	1.443 [3.450]	0.272 [2.723]	-0.689 [1.771]	-0.936 [1.913]	1.047 [2.208]	-2.728 [3.052]	2.986 [3.789]
_con s	9.521* ** [1.824]	3.489 [2.405]	2.406 [2.344]	1.575 [2.305]	8.306** * [3.111]	13.734*** [2.456]	13.172* ** [1.597]	3.980** [1.725]	4.496* * [1.991]	21.036** * [2.752]	23.020*** [3.417]
N	108	108	108	108	108	108	108	108	108	108	108
R ²	0.229	0.176	0.172	0.262	0.139	0.211	0.186	0.186	0.279	0.074	0.065
yme an	17.184	12.102	10.407	11.676	17.667	23.167	17.880	9.926	14.352	25.370	29.296

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 4: Changes in Search Volume Trends for U.S. Immigration and Customs Enforcement Agency in 10 Smallest Immigrant Population Metros

	(1) Boston MA	(2) Youngstown OH	(3) Akron OH	(4) Pittsburgh PA	(5) Portland ME	(6) Honolulu HI	(7) Springfield MO	(8) Toledo OH	(9) Evansville IN	(10) Dayton OH	(11) Spokane WA
T+1	7.496* ** [2.095]	4.904** [2.453]	9.972** * [3.131]	6.116** [2.357]	7.126*** [2.535]	5.995** [2.841]	9.548*** [3.459]	4.222 [2.641]	5.618* [2.969]	6.580*** [2.331]	14.877*** [3.187]
T+2	6.278* ** [2.106]	2.842 [2.467]	9.517** * [3.149]	7.694*** [2.370]	4.044 [2.549]	8.269*** [2.857]	10.598** * [3.478]	3.787 [2.655]	1.006 [2.986]	6.116** [2.344]	8.905*** [3.205]
T+3	5.690* ** [2.100]	2.128 [2.460]	8.413** * [3.139]	6.872*** [2.363]	5.491** [2.542]	7.342** [2.848]	5.891* [3.468]	4.751* [2.647]	2.143 [2.977]	6.865*** [2.337]	7.000** [3.195]
T-1	6.247* ** [2.095]	3.005 [2.453]	9.421** * [3.131]	5.050** [2.357]	6.171** [2.535]	7.024** [2.841]	5.961* [3.459]	3.946 [2.641]	10.783*** [2.969]	2.984 [2.331]	8.130** [3.187]
T-2	2.371 [2.106]	2.981 [2.467]	5.174 [3.149]	2.389 [2.370]	1.602 [2.549]	3.045 [2.857]	-1.402 [3.478]	4.055 [2.655]	-0.172 [2.986]	2.743 [2.344]	3.297 [3.205]
T-3	-1.748 [2.100]	-4.802* [2.460]	-1.731 [3.139]	-1.984 [2.363]	-3.154 [2.542]	-1.843 [2.848]	-2.772 [3.468]	-3.083 [2.647]	2.546 [2.977]	-1.549 [2.337]	0.895 [3.195]
Cons	8.800* ** [1.894]	8.407*** [2.218]	5.020* [2.831]	4.456** [2.131]	11.030*** [2.292]	7.731*** [2.568]	9.270*** [3.127]	9.818** * [2.387]	16.479*** [2.684]	9.862*** [2.107]	5.929** [2.881]
N	108	108	108	108	108	108	108	108	108	108	108
R ²	0.292	0.114	0.285	0.254	0.188	0.222	0.205	0.121	0.145	0.221	0.301
mean	17.334	11.991	18.231	12.926	17.926	17.398	18.287	15.546	23.583	17.556	19.898

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 5: Changes in Search Volume Trends for U.S. Citizenship and Immigration Services in 10 Largest Immigrant Population Metros

	(1) top10a vg	(2) Housto n TX	(3) Santa Barbara CA	(4) Los Angeles CA	(5) Naples FL	(6) Visalia CA	(7) Brownsville TX	(8) El Paso TX	(9) Laredo TX	(10) El Centro CA	(11) Miami FL
T+1	1.878 [1.396]	1.730 [1.778]	-2.997 [2.800]	0.715 [1.975]	4.373 [2.781]	2.887 [2.797]	-0.527 [2.987]	2.119 [2.781]	0.425 [2.372]	8.683*** [2.392]	1.376 [1.919]
T+2	0.440 [1.403]	1.130 [1.788]	2.189 [2.815]	2.644 [1.986]	0.787 [2.796]	-0.340 [2.812]	3.242 [3.004]	-1.553 [2.797]	-1.138 [2.385]	-2.720 [2.405]	0.161 [1.930]
T+3	2.764* [1.399]	3.745** [1.782]	-0.479 [2.807]	3.224 [1.980]	1.151 [2.788]	4.754* [2.804]	1.522 [2.995]	8.242*** [2.788]	1.976 [2.378]	1.300 [2.398]	2.200 [1.924]
T-1	0.031 [1.396]	-0.482 [1.778]	-0.349 [2.800]	-0.427 [1.975]	- 1.651 [2.781]	0.918 [2.797]	0.216 [2.987]	1.176 [2.781]	-3.654 [2.372]	6.169** [2.392]	-1.603 [1.919]
T-2	1.210 [1.403]	0.157 [1.788]	0.678 [2.815]	0.439 [1.986]	0.299 [2.796]	7.455*** [2.812]	-2.966 [3.004]	2.000 [2.797]	-0.159 [2.385]	2.466 [2.405]	1.731 [1.930]
T-3	-0.933 [1.399]	1.549 [1.782]	-2.311 [2.807]	-2.154 [1.980]	0.602 [2.788]	1.702 [2.804]	-1.724 [2.995]	0.871 [2.788]	-4.069* [2.378]	-2.802 [2.398]	-0.994 [1.924]
_co ns	53.900* ** [1.262]	72.268* ** [1.607]	32.291*** [2.531]	73.894*** [1.785]	48.46 7*** [2.514]	57.563*** [2.528]	63.465*** [2.700]	55.538** * [2.514]	28.691** * [2.144]	24.562*** [2.163]	82.264** * [1.735]
<i>N</i>	108	108	108	108	108	108	108	108	108	108	108
<i>R</i> ₂	0.061	0.067	0.023	0.059	0.032	0.101	0.030	0.089	0.054	0.182	0.030
yme an	55.647	74.806	31.231	75.333	50.26 9	63.194	63.389	59.704	26.546	28.806	83.194

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 6: Changes in Search Volume Trends for U.S. Citizenship and Immigration Services in 10 Smallest Immigrant Population Metros

	(1) bottom 10 avg	(2) Youngsto wn OH	(3) Akron OH	(4) Pittsbur gh PA	(5) Portland ME	(6) Honolul u HI	(7) Springfie ld MO	(8) Toledo OH	(9) Evansvi lle IN	(10) Dayton OH	(11) Spokane WA
T+1	0.133 [1.146]	-0.493 [2.916]	-0.118 [2.208]	0.303 [2.373]	-2.971 [2.948]	2.325 [3.262]	-5.877 [4.265]	3.357 [3.492]	-0.379 [3.321]	4.887 [3.234]	0.298 [2.342]
T+2	-0.276 [1.152]	-0.231 [2.932]	1.347 [2.221]	-4.522* [2.386]	-5.027* [2.965]	5.777* [3.280]	-4.232 [4.288]	1.260 [3.511]	3.471 [3.339]	0.231 [3.252]	-0.830 [2.355]
T+3	0.988 [1.149]	-0.083 [2.923]	-0.029 [2.214]	2.937 [2.379]	0.414 [2.956]	2.249 [3.270]	6.150 [4.275]	0.175 [3.501]	-2.980 [3.329]	-2.551 [3.242]	3.594 [2.348]
T-1	0.427 [1.146]	-0.816 [2.916]	-0.794 [2.208]	-0.638 [2.373]	4.066 [2.948]	0.387 [3.262]	-4.483 [4.265]	2.410 [3.492]	-1.638 [3.321]	2.886 [3.234]	2.891 [2.342]
T-2	0.943 [1.152]	0.135 [2.932]	-2.344 [2.221]	0.975 [2.386]	-1.323 [2.965]	1.266 [3.280]	6.745 [4.288]	-4.605 [3.511]	2.420 [3.339]	4.509 [3.252]	1.654 [2.355]
T-3	0.207 [1.149]	-2.710 [2.923]	3.293 [2.214]	3.395 [2.379]	-1.848 [2.956]	6.754** [3.270]	-1.100 [4.275]	-2.938 [3.501]	0.336 [3.329]	0.535 [3.242]	-3.649 [2.348]
_co ns	39.733* ** [1.036]	24.712*** [2.636]	48.478* ** [1.996]	51.132** * [2.145]	40.918*** [2.665]	44.726** * [2.949]	39.712*** [3.855]	35.583** * [3.157]	40.370** * [3.002]	38.811*** [2.924]	32.884*** [2.117]
N	108	108	108	108	108	108	108	108	108	108	108
R ²	0.016	0.009	0.035	0.070	0.066	0.082	0.075	0.042	0.024	0.056	0.061
yme an	40.518	23.352	48.917	51.926	38.750	50.806	38.806	35.472	40.769	42.213	34.167

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 7: Changes in Search Volume Trends for Trump Immigration Policy Services
in 10 Largest Immigrant Population Metros

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	top10a vg	Bakersf -ield CA	Santa Barbara CA	Yakima WA	Los Angeles CA	Naples FL	Visalia CA	Brownsvil -le TX	El Paso TX	Salinas CA	Miami FL
T+1	2.335* [1.308]	2.963 [2.388]	1.599 [3.238]	2.523 [3.292]	1.688* [0.933]	5.367* [3.128]	1.557 [1.318]	5.881* [3.470]	-0.765 [2.415]	1.071 [2.010]	1.465 [0.972]
T+2	0.213 [1.315]	-2.975 [2.401]	3.213 [3.256]	-1.298 [3.310]	-0.379 [0.938]	0.847 [3.145]	0.968 [1.325]	2.409 [3.489]	-0.148 [2.428]	0.628 [2.021]	-1.135 [0.977]
T+3	-0.134 [1.311]	1.959 [2.394]	-0.468 [3.246]	0.983 [3.300]	0.668 [0.935]	-0.993 [3.136]	-0.727 [1.321]	-2.176 [3.478]	0.756 [2.421]	-2.077 [2.015]	0.736 [0.975]
T-1	0.146 [1.308]	0.898 [2.388]	-0.711 [3.238]	1.293 [3.292]	0.207 [0.933]	2.402 [3.128]	-0.072 [1.318]	-2.500 [3.470]	-0.426 [2.415]	0.401 [2.010]	-0.028 [0.972]
T-2	0.237 [1.315]	0.970 [2.401]	1.694 [3.256]	-2.573 [3.310]	0.372 [0.938]	0.208 [3.145]	-1.645 [1.325]	1.575 [3.489]	-0.279 [2.428]	2.245 [2.021]	-0.203 [0.977]
T-3	-1.060 [1.311]	0.103 [2.394]	1.703 [3.246]	-0.887 [3.300]	-1.354 [0.935]	-2.694 [3.136]	0.084 [1.321]	-1.042 [3.478]	-3.296 [2.421]	-2.356 [2.015]	-0.865 [0.975]
_co ns	5.542** * [1.182]	3.758* [2.158]	4.490 [2.927]	6.274** [2.975]	3.990*** [0.843]	7.650** * [2.827]	3.613*** [1.191]	7.369** [3.136]	7.588*** [2.183]	4.741** [1.817]	5.945** * [0.879]
<i>N</i>	108	108	108	108	108	108	108	108	108	108	108
<i>R</i> ₂	0.039	0.033	0.019	0.016	0.053	0.045	0.040	0.047	0.020	0.041	0.041
yme an	6.105	5.028	6.769	6.287	4.380	9.315	3.667	8.713	6.241	4.713	5.935

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 8: Changes in Search Volume Trends for Trump Immigration Policy Services in 10 Smallest Immigrant Population Metros

	(1) botto m10a vg	(2) Youngstow n OH	(3) Akron OH	(4) Pittsbur gh PA	(5) Portlan d ME	(6) Honolul u HI	(7) Springfie ld MO	(8) Toled o OH	(9) Evansvil le IN	(10) Dayton OH	(11) Spokane WA
T+1	2.750 ** [1.14 8]	1.786 [1.832]	0.818 [1.204]	1.342 [1.230]	2.073 [2.553]	3.405** [1.603]	4.767* [2.615]	5.388* [3.21 8]	1.545 [2.683]	5.127* [2.987]	1.251 [1.568]
T+2	- 0.779 [1.15 4]	-3.024 [1.842]	-0.691 [1.210]	1.520 [1.237]	1.954 [2.567]	-1.797 [1.612]	-0.006 [2.629]	2.342 [3.23 6]	-4.143 [2.698]	-3.200 [3.003]	-0.741 [1.576]
T+3	0.836 [1.15 0]	1.880 [1.836]	0.359 [1.207]	1.297 [1.234]	-3.354 [2.559]	1.506 [1.607]	-0.390 [2.621]	8.015* * [3.22 6]	3.119 [2.690]	-3.569 [2.995]	-0.506 [1.571]
T-1	- 0.539 [1.14 8]	-0.713 [1.832]	0.624 [1.204]	-2.387* [1.230]	1.294 [2.553]	1.758 [1.603]	-2.189 [2.615]	- 3.303 [3.21 8]	-1.082 [2.683]	-1.350 [2.987]	1.961 [1.568]
T-2	- 0.895 [1.15 4]	-0.325 [1.842]	0.165 [1.210]	0.315 [1.237]	-5.421** [2.567]	-1.916 [1.612]	3.830 [2.629]	- 3.761 [3.23 6]	-2.663 [2.698]	0.514 [3.003]	0.311 [1.576]
T-3	- 0.552 [1.15 0]	-0.815 [1.836]	-1.078 [1.207]	-0.745 [1.234]	0.679 [2.559]	-1.139 [1.607]	0.051 [2.621]	2.320 [3.22 6]	-1.633 [2.690]	-1.630 [2.995]	-1.528 [1.571]
_cons	4.614 *** [1.03 7]	2.096 [1.656]	4.612** * [1.088]	4.306*** [1.112]	7.270*** [2.308]	3.430** [1.449]	3.091 [2.364]	4.389 [2.90 9]	5.176** [2.425]	8.581*** [2.700]	3.193** [1.417]
N	108	108	108	108	108	108	108	108	108	108	108
R ²	0.071	0.040	0.018	0.081	0.068	0.082	0.056	0.124	0.049	0.059	0.035
ymeas n	4.881	1.704	4.676	4.741	6.370	4.019	5.056	7.954	3.602	7.250	3.435

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 9: Changes in Search Volume Trends for Green Card in 10 Largest Immigrant Population Metros

	(1) top10a vg	(2) Yakima WA	(3) Visa lia CA	(4) Santa Barbara CA	(5) Naples FL	(6) Miami FL	(7) Los Angeles CA	(8) El Paso TX	(9) Brownsvi lle TX	(10) Bakersfield CA	(11) Salinas CA
T+1	-0.396 [1.035]	-4.608** [2.169]	3.80 6 [2.65 1]	-0.845 [2.011]	0.025 [2.228]	1.125 [0.850]	0.856 [0.868]	2.123 [3.096]	0.400 [3.047]	0.206 [4.469]	-1.999 [2.751]
T+2	0.088 [1.040]	1.268 [2.181]	- 1.49 8 [2.66 5]	-1.066 [2.022]	0.761 [2.240]	0.794 [0.855]	2.054** [0.873]	-2.282 [3.108]	2.022 [3.058]	2.575 [4.487]	0.306 [2.766]
T+3	-0.360 [1.037]	-0.923 [2.175]	4.85 8* [2.65 7]	-2.344 [2.016]	-1.826 [2.234]	0.286 [0.852]	0.041 [0.870]	1.056 [3.292]	-2.020 [3.239]	2.777 [4.752]	2.109 [2.758]
T-1	0.212 [1.035]	-0.054 [2.169]	3.14 4 [2.65 1]	3.499* [2.011]	-1.224 [2.228]	-0.011 [0.850]	0.227 [0.868]	2.768 [3.102]	-0.124 [3.052]	-2.017 [4.477]	0.195 [2.751]
T-2	-0.784 [1.040]	-3.723* [2.181]	1.25 0 [2.66 5]	-1.511 [2.022]	-1.917 [2.240]	-1.178 [0.855]	-0.263 [0.873]	0.880 [3.029]	-1.349 [2.981]	5.302 [4.372]	-2.299 [2.766]
T-3	-0.355 [1.037]	0.964 [2.175]	- 4.71 7* [2.65 7]	2.480 [2.016]	2.241 [2.234]	-0.998 [0.852]	-0.930 [0.870]	-5.061 [3.149]	-0.186 [3.098]	-0.238 [4.545]	0.546 [2.758]
_co ns	24.030 *** [0.935]	29.969*** [1.961]	39.3 75*** [2.39 6]	22.394*** [1.818]	25.471*** [2.014]	24.615* ** [0.769]	30.699** * [0.785]	26.009* ** [2.723]	20.012*** [2.679]	20.434*** [3.930]	29.361* ** [2.487]
N	108	108	108	108	108	108	108	53	53	53	108
R ²	0.010	0.067	0.08 5	0.060	0.025	0.067	0.082	0.095	0.024	0.050	0.019
yme an	23.513	27.676	41.5 93	22.463	24.843	24.620	31.343	25.755	19.642	23.075	28.991

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Appendix B Table 10: Changes in Search Volume Trends for Green Card in 10 Smallest Immigrant Population Metros

	(1) bottom 10 avg	(2) Youngstown OH	(3) Toledo OH	(4) Springfield MO	(5) Spokane WA	(6) Portland ME	(7) Pittsburgh PA	(8) Dayton OH	(9) Honolulu HI	(10) Evansville IN	(11) Akron OH
T+1	-0.714 [1.452]	-3.902 [2.751]	2.926 [3.466]]	0.200 [3.854]	0.972 [2.544]	0.695 [3.105]	-2.495* [1.288]	-2.283 [4.047]	0.483 [3.198]	-1.383 [5.067]	1.877 [2.414]
T+2	0.511 [1.460]	-0.999 [2.766]	-1.765 [3.485]]	2.742 [3.875]	4.223 [2.558]	5.200* [3.122]	4.980*** [1.295]	-2.490 [4.063]	-2.375 [3.210]	-5.382 [5.087]	-1.478 [2.423]
T+3	-0.619 [1.455]	2.855 [2.758]	-4.019 [3.474]]	2.069 [3.864]	0.884 [2.551]	0.248 [3.113]	0.526 [1.291]	1.697 [4.303]	-1.856 [3.400]	4.369 [5.388]	1.492 [2.566]
T-1	0.385 [1.452]	0.960 [2.751]	8.566* * [3.466]]	2.178 [3.854]	2.417 [2.544]	-2.617 [3.105]	1.364 [1.288]	2.066 [4.055]	-3.543 [3.204]	-3.265 [5.077]	-2.209 [2.418]
T-2	-0.020 [1.460]	1.658 [2.766]	-0.880 [3.485]]	2.375 [3.875]	-2.435 [2.558]	3.310 [3.122]	-1.003 [1.295]	-3.734 [3.960]	-0.149 [3.129]	-0.903 [4.958]	-2.214 [2.361]
T-3	-0.781 [1.455]	2.048 [2.758]	-1.469 [3.474]]	5.044 [3.864]	-0.612 [2.551]	-4.104 [3.113]	-0.938 [1.291]	-8.322** [4.116]	-0.708 [3.252]	-6.745 [5.153]	-0.433 [2.454]
_cons	20.216* ** [1.312]	11.123*** [2.487]	25.68 1*** [3.133]]	21.997*** [3.484]	28.827* ** [2.300]	25.188 *** [2.807]	22.888** * [1.165]	31.978** * [3.559]	36.347* ** [2.812]	26.037*** [4.456]	24.143*** [2.123]
<i>N</i>	108	108	108	108	108	108	108	53	53	53	53
<i>R</i> ₂	0.009	0.047	0.082	0.033	0.048	0.060	0.167	0.115	0.044	0.066	0.065
<i>ymean</i>	19.815	11.972	26.76 9	26.731	30.593	26.074	23.676	27.774	33.906	21.792	23.170

Standard errors in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$