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About the Contributors

Nitin Agarwal is the Maulden-Entergy Chair and Distinguished Professor of Information Science at University of Arkansas at Little Rock. He is also the founding director of the COSMOS Research Center. Dr. Agarwal is a faculty fellow at the International Computer Science Institute at University of California, Berkeley. He studies emerging cyber social behaviors in multi-modal and cross platform information environments including collective action, influence, trust, toxicity, deviance, mis/disinformation, and cyber campaigns with theoretical and methodological underpinnings in social computing, social cyber forensics, data mining, machine learning, and artificial intelligence. He has published 11 books and over 300 articles with several thousands of citations. His social media analysis tools are recognized by NATO Innovation Hub, NATO StratCom Center of Excellence, the World Health Organization (WHO), Australian DSTO's strategic policy group, Arkansas Attorney General and others. Dr. Agarwal participates in the US State Department's National Tech Innovation Hub to defeat foreign based propaganda. His research is supported by various US federal funding agencies including, US Army, Navy, Air Force, DARPA, and NSF with a combined direct funding of over $20 million.

Samer Al-khateeb is an assistant professor in the Department of Computer Science, Design and Journalism, specializes in the quantitative analysis of publicly available social media data related to topics such as deviance in social media, social cyber forensics, social bots, internet trolls, disinformation/misinformation, fake news, and cyber propaganda campaigns. He also has experience with qualitative analysis, such as directed and summative content analysis, e.g., topic modeling, toxicity, sentiments, and correlation analysis. His most recent research examines the use of social science theories to construct computer simulation models. He is currently working on a project to model the mob phenomenon by leveraging factors extracted from social science theories and deep learning. The project aims to develop a model that can simulate mobs to gain a deeper insight into the behaviors of those involved in the mob and to predict the outcome of such events.

Kiran Kumar Bandeli is a Senior Manager, Data Science at Walmart Inc. working with the Transportation Forecasting team. Kiran holds a PhD degree in Computer & Information Sciences and Master's degree in Information Quality at University of Arkansas at Little Rock (UALR). Kiran worked as a graduate research assistant at the COSMOS research center. Kiran has been actively serving in the field as Affiliate Graduate Faculty at UALR; as a reviewer for prestigious organizations and top-tier venues such

as ASONAM, HT, WSDM, SBP-BRiMS, and SNAM. His research interests span across Natural Language Processing, Machine Learning, Social Network Analysis, Social Media Mining, and Social Computing, with applications in Demand Forecasting, and Social Media.

Rita Chowdhury was a former graduate student at the COSMOS research center and is currently working as Senior Associate, Financial Markets at PwC.

Gabbrielle Gies is a magna cum laude graduate of the University of Arkansas with a degree in political science and psychology. She works in Washington, DC in government.

Kisha A. Hardwick is an Assistant Professor in the Department of Government. Public Service, and International Studies at the University of Central Arkansas in Conway, Arkansas. She received her PhD in Public Administration and Public Policy from Auburn University. Her research focuses on the behavior of state and local bureaucrats within varying institutional arrangements.

Kim U. Hoffman (Ph.D., University of Oklahoma, 2003) is a Professor of Public Administration at the University of Central Arkansas in Conway, Arkansas. Her primary area of research is in the field of public administration with an interest in state and local budget processes, key budget actors, and state and local government revenue systems. Her research has appeared in *State and Local Government Review, The American Review of Public Administration*, *Journal of Public Budgeting, Accounting, and Financial Management,* and *The Midsouth Political Science Review*.

Joseph Yuichi Howard (Ph.D., University of Houston, 2006) is an Associate Professor of Political Science at the University of Central Arkansas in Conway, Arkansas. His primary area of research is in the field of public policy with a particular interest in policy implementation and education policy reforms. His research has appeared in *Public Administration Review, Journal of Public Budgeting, Accounting, and Financial Management,* and *The Midsouth Political Science Review*.

Muhammad Nihal Hussain is a Lead Data Scientist at Equifax, specializing in the intersection of entity resolution and fraud detection. In his dual role as a Subject Matter Expert and functional manager, he leads the transition from traditional systems to cloud architecture. His work involves analyzing large data sets, developing analytical models for entity resolution, and validating these capabilities. Dr. Hussain is adept at strategizing and communicating

transition plans to senior leadership, ensuring successful implementation. He also conducts Proof of Concepts, ROI assessments, and oversees the transition process. Previously, as a postdoctoral fellow at the COSMOS research center, University of Arkansas at Little Rock, he focused on studying online disinformation campaigns. Dr. Hussain has published extensively, including 6 book chapters, 3 journal articles, over 40 peer-reviewed papers, and has edited 2 books. He actively contributes to academic journals and conferences, underscoring his commitment to advancing his field.

Adewale Obadimu, a platform engineer at Diligent Robotics, specializes in developing robots to assist healthcare providers. He earned his Ph.D. in computer science from the University of Arkansas at Little Rock, delving into research on social media toxicity and blog analysis. Adewale worked as a graduate research assistant at the COSMOS research center. With over ten years in software development, computer networking, project management, machine learning, and social network analysis, Adewale's career is marked by a strong research orientation. Adewale is passionate about addressing complex challenges and advancing technological solutions through in-depth research and innovation.

Karen Sebold is an assistant professor at the University of Arkansas. Her research interests focus on election administration, the campaign finance system, and presidential primaries.

Geoboo Song is an associate professor of political science, public policy, and statistics analytics. His research is centered around policy theory, methodology, policy analysis, and politics of risk.

Oluwaseun Walter, a Software Engineer at JPMorgan Chase, specializes in software product development and is instrumental in the firm's cloud data migration efforts. His previous experience at Amazon Web Services involved developing cloud solutions and resolving complex customer issues. Oluwaseun holds a Master's in Business Information System with a focus on Data Analytics from the University of Arkansas at Little Rock. He worked as a graduate research assistant at the COSMOS research center. His professional interests lie in Software Engineering, Big Data, and Cloud Architecture, where he aims to make a significant impact through his expertise in navigating complex technological environments.

Eric Wiebelhaus-Brahm is a Professor in the School of Public Affairs at the University of Arkansas at Little Rock. He is an expert on transitional justice (TJ), human rights, and peacebuilding. His research interests include

evaluating the impact of justice and peacebuilding policy interventions, the political economy of TJ, diasporas and TJ, and justice politics in the USA. He is the author of three books and over two dozen articles and book chapters. His newest book, co-authored with Elin Skaar and Jemima García-Godos, is *Exploring Truth Commission Recommendations in a Comparative Perspective: Beyond Words* (Intersentia Uitgevers NV, 2022).

Social Media Justice and Peacebuilding Mobilization for Syria

Eric Wiebelhaus-Brahm
University of Arkansas at Little Rock

Samer Al-Khateeb
Creighton University

Nitin Agarwal
University of Arkansas at Little Rock

Kiran Kumar Bandeli
Walmart Inc.

Rita Chowdhury
PwC

Muhammad Nihal Hussain
Equifax

Adewale Obadimu
Diligent Robotics

Oluwaseun Walter
JPMorgan Chase

Many have noted the growing pervasiveness of transitional justice (TJ) norms in global politics. Yet, cyberspace has attracted little attention from scholars. Measuring justice demands and perceptions of ongoing processes is often difficult due to limited resources and security concerns. Social media data provide one alternative in such contexts. Using the Syrian civil war as a case study, we explore the strengths and limitations of social media analysis for advancing our understanding of TJ processes. Great power politics and conditions on the ground have thus far prevented justice for atrocities committed during the war. Nonetheless, TJ discourse has been prevalent over the years among Syrian and transnational activists alike. However, our analysis of data from Twitter, YouTube, and blogs reveals that social media

users focus more on drawing attention to atrocities rather than articulating a justice vision for Syria.

Keywords: Syria, social media, transitional justice, Twitter, YouTube, blogs

Introduction

The world's worst humanitarian crisis since World War II, the Syrian Civil War has been a focus of human rights activism. Approximately 500,000 people have been killed and roughly half of Syria's pre-war population of 22 million have been displaced. As local and transnational activists mobilize around addressing these atrocities, they often employ the language of transitional justice (TJ), which denotes various policies that societies use to address histories of violence and repression. Among other things, activists speak of TJ in the Syrian context because they were initially confident that Assad would fall quickly and the rhetoric connected with global norms and donor preferences (Stokke and Wiebelhaus-Brahm 2019).

As a twenty-first century conflict, the war is waged partially in cyberspace. At least initially, the Assad regime successfully used digitally-enabled transnational repression to curb mobilization in the Syrian diaspora (Moss 2018). Syrian and non-Syrian activists also use social media to draw attention to atrocities and to advocate for TJ to address years of human rights violations. Globally, blogs and social media platforms like Facebook, YouTube, and Twitter are used to collect, organize, and analyze new information about human rights abuses and humanitarian needs with growing frequency. Yet, we know relatively little about how information and communication technologies have been used in debates about TJ, either generally or regarding Syria specifically.

In fact, social media analysis (SMA) has the potential to contribute to several key controversies within the TJ field (Vinck 2019). For example, such data can help us understand what people want and their level of satisfaction with what has been provided. As open platforms, social media enables individuals to advocate on their own behalf without the mediation of local and global elites. Thus, social media might contribute to the development of a more 'localized' or 'particularized' TJ vision. At the same time, social media data is not a panacea. Online voices are typically far from representative of broader populations. The same inequalities of access that exist in the physical world also exist in the virtual (Ragnedda and Muschert 2013). Moreover, privacy and security concerns shape whose voices are

heard and how we can analyze them. Among other things, until a critical mass of people are active on social media and privacy/security concerns settled, there are limitations to what SMA can contribute to TJ debates.

Using the case of mobilization for atrocities committed in Syria, this article demonstrates the empirical value-added of SMA. We begin by discussing how SMA can contribute to key TJ debates. Next, we provide a brief introduction to the Syrian conflict and related mobilization before turning to the analysis of social media. There, we utilize a variety of SMA tools to examine the dynamics of social media discussions about Syria that have been conducted on Twitter, YouTube, and blogs. We find that chatter has not necessarily been dominated by voices from the Global North. Nonetheless, users appear to be more focused on dimensions of the conflict that affect Europe rather than on justice itself. We conclude by reflecting more generally on the promise and limitations of SMA for advancing TJ scholarship.

Social media analysis and transitional justice debates

With some exceptions, little research has examined technological dimensions of TJ. Several studies focus on the management of data collected by truth commissions and other bodies (Mezarobba and Cesar 2016; Peterson 2005; Pham and Aronson 2019). Other research examines the implications of Web 2.0 for truth commissions' collection and dissemination of information (Pelsinger 2010; Wiebelhaus-Brahm 2013). Still other studies examine international courts' outreach strategies (Lincoln 2011; Vinck and Pham 2010), but little attention is paid to the technology through which they do so, or how individuals respond to those strategies. In fact, the social media strategies of TJ mechanisms themselves have not been examined.

SMA can contribute to several important TJ controversies. One abiding interest is measuring the justice demands of societies affected by conflict and repression. Gauging the public's justice demands is important so that TJ meets local needs. Several academic and civil society initiatives have attempted to do this in a range of national contexts (Gibson 2004; International Center for Transitional Justice 2011; International Center for Transitional Justice and Human Rights Center of the University of California at Berkeley 2004; Vinck and Pham 2008; Vinck, Pham, and Kreutzer 2011). Similarly, due to a desire to make TJ responsive to local demand, measuring individuals' reactions to TJ processes may enable adjustments midstream.

Even after TJ processes formally conclude, gauging individual assessment of them may help us understand, if not predict, their long-term impact. However, due to resource constraints, security concerns, and the unpredictability with which TJ opportunities arise, we often lack good data on the nature of societies' demands or perceptions (Backer and Kulkarni 2016)

Social media data provides one potential way of addressing this knowledge gap. SMA enables the collection of large amounts of data without the time and cost of surveys. Without the need to devise and deploy a study in the field, social media data can be collected almost the instant it is generated. Moreover, for countries beset by widespread violence and oppression, SMA typically gives rise to fewer security concerns for subjects and researchers alike. Social media users provide content voluntarily, thus they have at least implicitly weighed the security risks of participation. Finally, with some limitations, social media data can be gathered after the fact. As such, natural experiments are possible without having to be out in the field at the right time.

Another important TJ controversy is the so-called global vs. local debate, which revolves around whether the ways in which processes are designed and the form justice takes reflects local or global (often read Western) conceptions of justice (McEvoy and McGregor 2008; Robins 2009; Shaw, Waldorf, and Hazan 2010). Social media has been celebrated for its democratizing potential. Anyone with a smartphone has a voice. For example, any individual has a platform on which to assess efforts to promote accountability for atrocities committed during the Syrian war, such as the International Impartial and Independent Mechanism (IIIM) established by the United Nations (UN) or activists' efforts to use the Caesar Files to pursue cases in third countries under universal jurisdiction principles.[1] SMA allows us to reveal how social networks enable activists to amplify their voices and reach different audiences by connecting with other activists on social media. Such interactions sometimes resemble the boomerang effect of transnational human rights activism (Keck and Sikkink 1998), such as when transnational activists used social media to magnify the voices of Saudi women's rights activists globally, thereby contributing to the termination of the ban on

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[1] The UN General Assembly established the IIIM in December 2016 under Resolution 71/248 to "assist in the investigation and prosecution of persons responsible for the most serious crimes under International Law committed in the Syrian Arab Republic since March 2011." The Caesar Files refers to approximately 5,500 photos documenting torture and other atrocities that were smuggled out of Syria in August 2013 by a military police photographer.

women drivers (Agarwal, Lim, and Wigand 2012; Yuce et al. 2016). More generally, social media data might help reveal whether local and Western perceptions of justice initiatives are similar or different.

One more area in which social media data can yield innovative insights is about how TJ controversies are perceived. For example, the so-called peace vs. justice debate revolves around whether the threat of prosecution deters human rights violations and/or compels actors committing violations to stop (Dancy and Wiebelhaus-Brahm 2018; Loyle and Appel 2017). Supporters of criminal prosecution argue that trials promote peace by incarcerating perpetrators, deterring would-be violators, and changing norms about the acceptability of violence to achieve political goals (Akhavan 2009; Kim and Sikkink 2010; Orentlicher 2010). Critics, by contrast, charge that the threat of prosecution gives perpetrators incentive to keep fighting to protect themselves from prosecution, either prolonging or reigniting fighting (Snyder and Vinjamuri 2003). Social media data obviously cannot weigh in on whether a trade-off between peace and justice exists. However, it can be used to explore whether or not individuals perceive that such a trade-off exists.

At the same time, there are limitations to the insights social media can provide. Syrians who comment on TJ are unlikely to be representative of the Syrian public. They are generally more highly educated activists; they and/or family members may be victims. Syrian TJ social media campaigners also are likely to be more immersed in Western notions of justice, whether out of conviction or because they understand that doing so will better ensure access to donor funds (Madlingozi 2010; Okello 2010). Syrian activists may have left Syria years, if not decades ago, but purport to speak on behalf of Syrians in the country. Furthermore, other forms of bias could creep in, such as the amplification of certain narratives via computer programs known as social bots, artificially inflating the number of views or likes, or injecting comments designed to manipulate other users. Such biases can be addressed using advanced SMA techniques as discussed by Agarwal et al. in their studies of the European migrant crisis (Hussain et al. 2017), Venezuela's ongoing political crisis (Mead et al. 2018), and anti-NATO disinformation campaigns (Agarwal and Bandeli 2018). On the whole, though, existing global and local inequalities in access and voice (e.g., Western tropes being reproduced, diaspora voices magnified over Syrians who remain in the homeland) may be reinforced by an overreliance on social media data.

Syrian context

Violence in Syria began when the government cracked down on pro-democracy protestors in early 2011. The Assad family's Ba'athist regime has a long history of oppression, so its response was not out of character. What was different was that some took up arms to defend themselves. Foreign governments opposed to Assad provided support to various rebel factions. In this context, violence escalated. Complicating matters further, the governance vacuum created by the war made it an attractive destination for Islamic extremists from around the world. In response, foreign governments deepened their military involvement to counter Islamic State, al Qaeda affiliates, and other perceived extremists. The humanitarian crisis ensued.

The civil war plays out on social media. Platforms are used to document atrocities. Activists spread knowledge of gross human rights violations to compel conflict actors to change their behavior and to pressure the international community to stop the violence and provide justice. Early on, a diverse set of actors, Syrians and foreign alike, took to social media to promote their vision of justice and accountability for Syria. Syrians' experiences have been quite diverse. Some remain in the country. Others are in the diaspora, having either fled the country since 2011 or in the years and decades prior. Syrians also have diverse perspectives on which type of justice should be prioritized in addressing the civil war and past oppression. Despite the fact that any sort of transition appears extremely remote, activists typically use TJ language in their discussions about how to address atrocities.

Social media analysis of the discourse surrounding Syria

In this section, we analyze social media discussions about human rights violations and justice in Syria. We examine data from Twitter, YouTube, and blogs.[2] For each social media platform, we first introduce our data collection methodology. Then, we provide an overview of our findings. Throughout, we highlight both the strengths and limitations of SMA.

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[2] Facebook is popular among Syrians, and an important one for Syrian and non-Syrian human rights and TJ activists. However, during our data collection phase, Facebook limited access to its data as it dealt with the Cambridge Analytica scandal.

Twitter

Data was collected using Twitter Rest API via Google TAGS.[3] A snowball data collection process was used, wherein we use seed knowledge (i.e., known Twitter users, hashtags[4], and keywords related to TJ discourse surrounding Syria) and then expanded the sample as more relevant resources (hashtags, users, etc.) are identified. We started with 14 prominent users and five hashtags. For the purpose of this research, we collected data from February 14, 2018, to May 29, 2018. In total, we obtained 5,991 Twitter posts regarding Syria and TJ during the period, which include 2,052 tweets, 3,343 retweets[5], and 596 mentions[6] generated by 1,450 Twitter users who posted in 26 different languages.

YouTube

We identified six YouTube channels related to Syria for analysis by tracking the social media profiles of influential TJ activists who were at the forefront of TJ discussions about Syria. We combed their social media profiles and extracted links to videos they shared on various platforms. We followed the YouTube links and verified each channel's relevance. Using YouTube Data API, we extracted the title, publication date, and description of 6,884 videos from the channels of interest. Due to privacy reasons and YouTube's data usage agreement, we cannot divulge the names of the

Table 1. YouTube Data Characteristics

Videos	6,884
Channel Subscribers	1,126
Views	4,660,683
Likes	21,880
Dislikes	4,517
Comments	6,468
Commenters	4,493
Likes on comments	4,988
Replies on comments	2,418

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[3] An online Twitter data collection tool, available at https://goo.gl/uxkP9k.

[4] Words or phrases used to identify a topic. Clicking on a hashtag enables users to view all messages mentioning it.

[5] The act of reposting or forwarding a message posted by other Twitter users.

[6] The act of mentioning another user in a tweet by using the @ sign.

channels that hosted these videos. We extracted the number of views, likes, dislikes, and comments for all the videos hosted on each channel. For each comment, we extracted the commenter's ID and name, the comment text, likes and replies to the comment, and publication date. The data are summarized in Table 1.

Blogs

The first step to analyze blog data is to identify key blogs pertaining to Syria and TJ. We searched using keywords that highlight key Syrian activists as well as important events and actors in the civil war in order to shortlist blogs for the study.[7] After identifying 56 blogs, we reviewed each for relevancy. The review process involved visiting each blog and combing them to verify bloggers were actually blogging about Syria. Any blogs that discussed anything other than Syria were discarded. This assessment allows us to focus on relevant bloggers. Of the initial 56, 11 blogs were found to be relevant. To collect blog data, we set up a web crawler, a computer program pre-programmed to browse blogs and extract content from the webpage. There are three main steps in crawling data from a blog site: (1) exploring the site, (2) crawling it, and (3) cleaning and storing the data in a database for analysis. The crawling process is described in Figure 1.

To crawl data from blogs, we use the Web Content Extractor (WCE), a programmable bot that visits pre-identified blogs on a regular basis to index them. To program the bot, we determine how the blog's content is arranged. During crawling, we extract blog attributes such as blog post title, author, date of posting, the text of the actual post, permalink, number of comments, and the text of the comments. We also determine how site navigation works to program the crawler. Finally, we take a sample post and define the attributes we want WCE to collect. Since blog posts typically follow a repetitive structure, WCE is run on the entire blog site to automatically fetch data for all posts. We repeat these steps for each blog.

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[7] The keywords used were Ghazwan Qrunful, Mouaz Moustafa, Mohammad Al Abdallah, Miral Biroreda, Radwan Ziadeh, Mansour al-Omari, Mazen Darwish, Syria, Aleppo, Russia, Putin, Isis, Syrian Civil War, arab spring, Russia forces in Syria, Syrian Arab Army, Daesh, Amnesty International, USA, Donald Trump, Douma, Chemical Attack, Ghouta, Iran, United Nations, Europe Migration, Chlorine gas, Idlib, Northern Syria, Syrian Revolution, Assad Regime, Syria Airstrike.

Figure 1: Blog Data Collection Framework
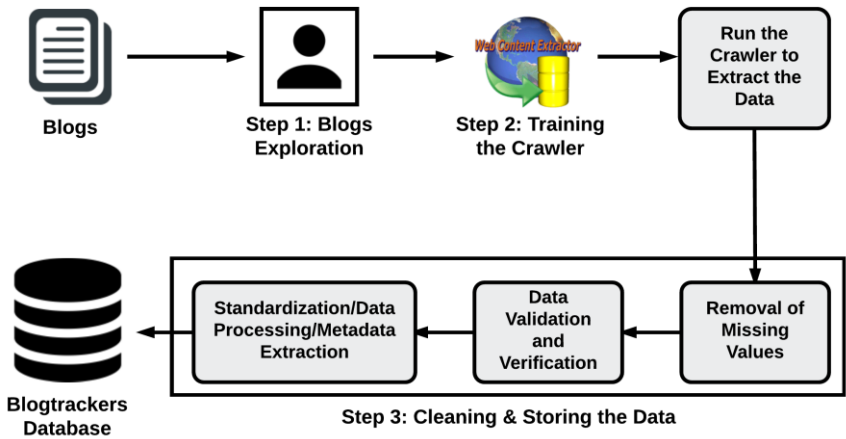
Web crawling does not always provide clean data. It typically contains some noise, such as missing data, duplication of data, or extraneous data like advertisements, that must be eliminated. We take several measures to ensure that the data pushed to Blogtrackers for analysis is clean (Agarwal et al. 2009). Blogtrackers is a java-based application that is designed to provide data scientists with the tools necessary to track blogs and bloggers alike. Blogtrackers has the functionality to identify not only trending topics, but also the blog posts and the bloggers who influence the blogosphere.

Following the methodology above, we crawled 11 blog sites. The crawlers were programmed to specifically collect data related to Syria. Blogs in a different language were translated into English with Google Translate. While the accuracy of such translations is debatable, it allows us to get the gist of the content. Through this process, we obtained a total of 6,683 blog posts and 30,223 comments during the period from September 5, 2006, to July 2, 2018.

Data analysis and findings – Twitter

Based on the messaging relations from the data (i.e., who replied to whom, who mentioned whom, etc.), a communication network was developed. It consists of 2,923 Twitter accounts connected by 2,176 relations

either through retweets or mentions. By conducting a component analysis, we observe that the communication network regarding atrocities in Syria is highly fragmented, indicating several conversations going on simultaneously. This network (see Figure 2) has 49 connected components. A connected component is a network unit in which individuals are connected with each other. The number of individuals in a given component is referred to as the component's size. The components in our early 2018 Syria data have the following size distribution (see Figure 3):

- 1 isolate (size 1).
- 18 dyads (size 2).
- 11 triads (size 3).
- 2 components of size 4.
- 17 components larger than 4.

Figure 2: Communication Network of Twitter Accounts Discussing Syrian Justice Issues
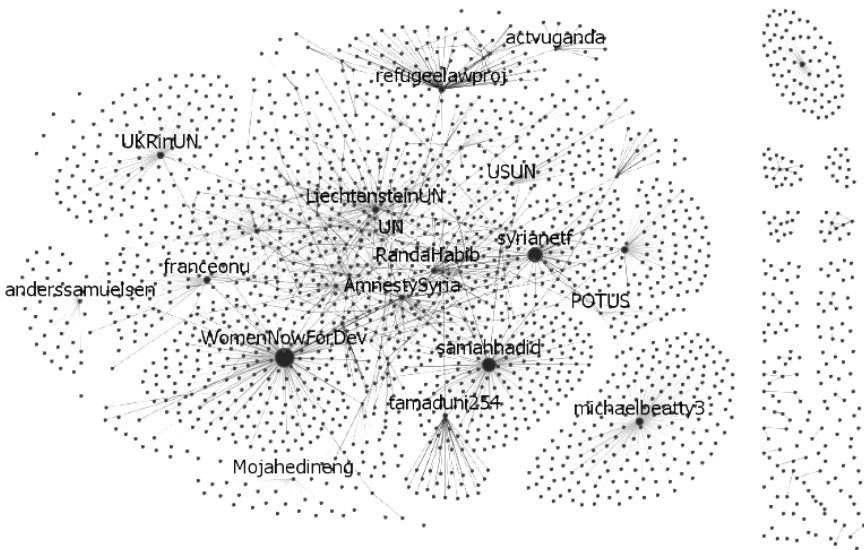
Note: Each black dot denotes an account. Gray edges between the dots depict retweets or mentions.

The presence of several components in the communication network signifies that communication about Syria in this community is fragmented. The components that are larger than four are Twitter accounts retweeting authoritative/verified Twitter accounts of human rights organizations, diplomats, or news channels. Large components resemble more of a genuine

discussion of an issue involving many users. People are retweeting others' messages and mentioning others. By contrast, components that are smaller than 4 are typically users mentioning other Twitter accounts about various

Figure 3: Small Components of the Communication Network of Twitter Accounts
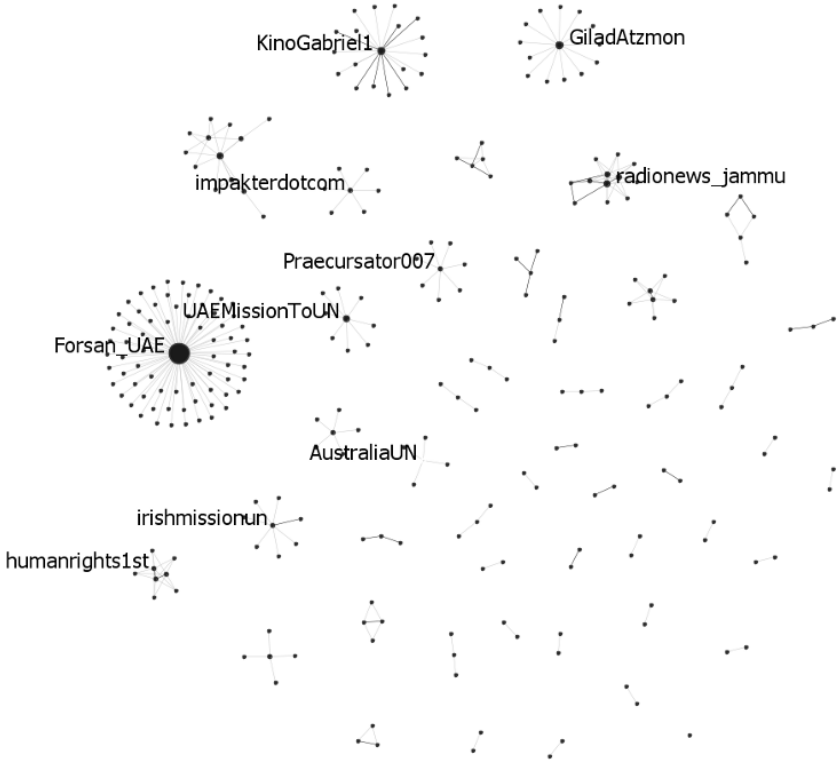
> *Note:* Each black dot denotes an account. Gray edges between the dots depict retweets or mentions.

issues. The smaller the component, the more it resembles direct communication between two accounts rather than a network. For example, if someone is mentioned in a tweet just to show her that tweet, this would be a dyadic relationship. However, if users retweet and mention each other in more than one tweet, and then their friends also retweet and mention them in other tweets, this represents deeper engagement with the topic and the size of the component will grow.

Examining the biggest component reveals that the conversations are more relevant to the topic of human rights in Syria where more prominent organizations are engaged. A majority of the Twitter accounts were retweeting posts from various countries' UN missions and human rights organizations. The users in this component also retweeted others more than once. For example, the Twitter account for the Syria Justice and Accountability Centre (@SJAC_info) retweeted the official Twitter account of the International Commission on Missing Persons (@TheICMP) five times, meaning the accounts in the biggest component have high engagement with the text and a low direct engagement with individual Twitter accounts.

Although conversations in the biggest component are relevant to Syria, they can be further divided into subtopics. Such topical clusters are revealed by running Newman clustering algorithm on the communication network to detect communities of Twitter accounts (Newman 2006). We found that the largest connected component has 26 communities (i.e., 26 separate sub-conversations occurring in the group). The subconversations were happening between subgroups ranging in size from 4 to 308 Twitter users (on average, 72 Twitter users in each subgroup). This indicates that, although these Twitter accounts are connected in one big component, they are clustered around topics or issues. Figure 4 shows the 26 communities connected densely at the core of the network (the middle) and sparsely connected at the periphery.

Once we identify the relevant conversation through component analysis, it is important to identify the key actors engaging in the conversation. Using SMA toolkits, we can measure the structural properties of social networks to identify key actors (i.e., Twitter accounts that are repeatedly top-ranked in a set of network measures). There are several SMA toolkits that can be used to conduct this analysis, e.g., Organizational Risk Analyzer (ORA) (Yin and Chen 2012), Gephi (Bastian and Heymann 2009), Cytoscape (Shannon et al. 2003), Pajek (Batagelj and Mrvar 2004), and NodeXL (Smith et al. 2009). We use ORA because of its ability to scale well with large social networks.

Figure 4: 26 Communities Detected in the Largest Component
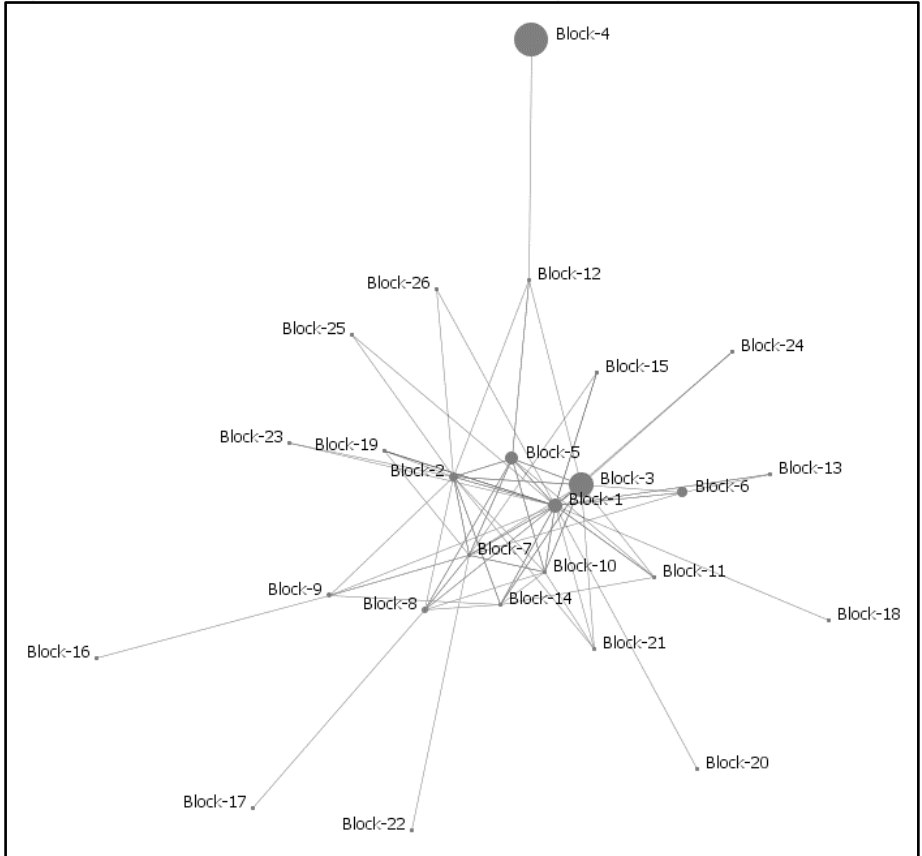
Note: Each dot represents a community. Larger dots denote larger communities.

By analyzing the communication network, we can identify key players. Key players are Twitter accounts that are repeatedly top-ranked in a variety of network measures developed in SMA. In the analysis that follows, we focus on accounts with the highest values in the following node-level network measures:

- Total Degree Centrality: measures the total number of connections a node has, e.g., the total number of friends and followers a Twitter account has. Twitter accounts that have high total degree centrality

are more likely to be well-known individuals or organizations as they are connected to many others.

- Outdegree Centrality: measures the total number of outgoing connections a node has, e.g., the total number of friends a Twitter account has. Twitter accounts that have higher outdegree centrality are more gregarious. Gregariousness is defined by the number of people one knows, i.e., the more people one knows, the more gregarious one is.
- Indegree Centrality: measures the total number of incoming connections a node has, e.g., the total number of followers a Twitter account has. Twitter accounts that have higher indegree centrality are more popular. Popularity is a characteristic of an individual in a social network that is defined by the number of ties (or connections) an individual has. These characteristics are directional by nature, which has further implications, i.e., the more people know someone, the more authoritative they are.
- Betweenness Centrality: measures how many times a node lies on the shortest path across the graph. Twitter accounts that have a high betweenness centrality are important nodes because they act as information brokers or bridges.
- Closeness Centrality: measures how quickly a Twitter account can reach other accounts in the network. Twitter accounts that have a high closeness centrality are important nodes because they might have better access to information or more influence on other Twitter accounts in the network.
- Hub Centrality: measures the extent to which a Twitter account sends a lot of information to a wide range of other Twitter accounts. Twitter accounts that have a high Hub centrality are considered authoritative Twitter accounts.
- Authority Centrality: measures the number of friends of any Twitter account followers. So, if a Twitter account has a high Authority Centrality, it means that this account's followers have many friends (good Hubs or accounts with high Hub centrality scores).
- PageRank Centrality: measures the authoritativeness of an individual in a social network. The premise is that an individual is more authoritative if his/her connections are more authoritative. In other words, the quantity of one's connections is not a sufficient measure of authoritativeness. This attribute distinguishes PageRank from the degree centrality measure. For example, Twitter users who are followed by influential nodes, e.g., Elon Musk, are more authoritative than Twitter users who are followed by non- influential nodes, e.g., us.

With respect to Syria, Figure 5 shows the top ten key players in the biggest and the most relevant conversation group. These Twitter accounts generated 27% of the data we collected. In particular, they all retweet a lot (made a total of 1,121 retweets, 306 tweets, and 227 mentions). Moreover, the key players were all human rights organizations, leaders, or supporters. For this analysis, the smaller groups were discarded because their conversations were not relevant to Syrian justice debates and, hence, their communication had comparatively little impact.

Figure 5: Top 10 Twitter Accounts in the Biggest Communication Component
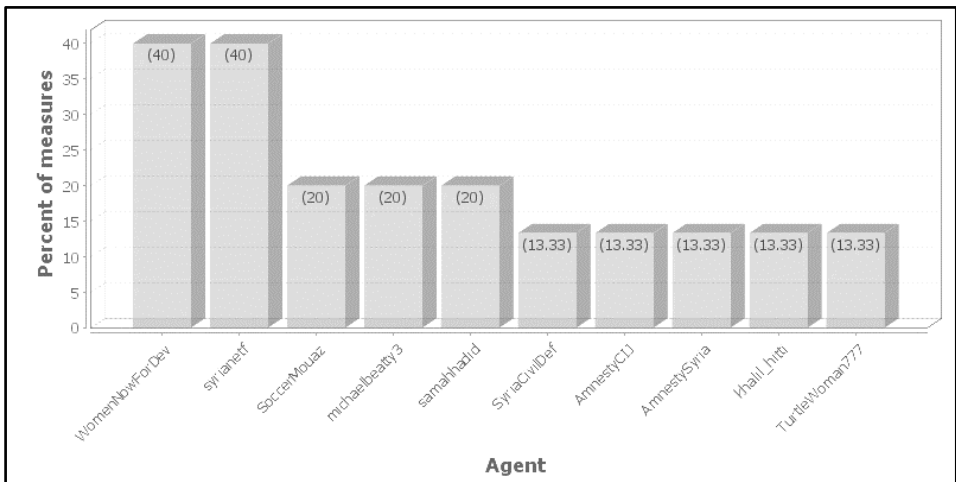
We found that the account @WomenNowForDev, a Syrian non-governmental organization, ranked highest on all network measures. The account mainly focuses on women's and children's rights in Syria. In fact, the account mainly retweets. For example, @WomenNowForDev retweeted @ActForGhouta (which is an account that is "tweeting on the daily life and the inspiring resilience of the besieged people in Eastern Ghouta"[8]) and @WeExistSyria (which is an account of an alliance of Syrian civil society organizations) 38 and 36 times respectively during our data collection period.

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[8] Eastern Ghouta is a city in eastern Syria that the Assad regime is accused of attacking with chemical weapons on April 7, 2018.

To examine the major issues discussed by the Twitter users, we conducted content analysis of the text from the postings. Text analysis also affords a clearer picture of interaction among local and global voices. We first analyzed the content of these texts at a high level, then zoomed-in on the tweets, the retweets, and the mentions separately to understand the content based upon the characteristics of Twitter communication. For example, a tweet might indicate an individual's opinion about an issue, a retweet might indicate an individual's engagement with the text, and a mention of another account might indicate a more direct engagement with the individual (who is mentioned) and not just the content.

We analyzed the text by generating a "word cloud" using wordart.com. This visualization is useful in providing an overall understanding of the textual data where words are sized based on the number of times they occur in a given text. We found that the words "Syria", "Justice", "Accountability", and "IIIM" were the most used words (see Figure 6a) between January 29, 2018, and May 29, 2018.[9] We found that most tweets (see Figure 6b) focused on "force" used to "kill" "civilians" in "suburbs" and "cities", such as the chemical weapons attack in "Idlib" during "feb", "Mar", and "April" of 2018. During this period, violence spiked in Eastern Ghouta and Idlib. Most retweets (see Figure 6c) and mentions (see Figure 6d) called for bringing those who committed "crimes" against civilians in "Syria" to "justice" by the head of "IIIM", Ms. Catherine Marchi "Uhel", during a "UN" press briefing. In April 2018, Marchi-Uhel gave her first briefing to the UN General Assembly since it passed a resolution establishing the IIIM in December 2016. In the same month, the IIIM signed a protocol of communication with 28 Syrian civil society organizations.

To further identify which issues matter most to Twitter users, we analyzed 1,077 unique hashtags used in early 2018. Most of them referred to war crimes in Eastern Ghouta. The hashtag "IIIM" was the second most used hashtag. The most used hashtags are written in English. Account data does not reveal Twitter users' nationality. However, the predominance of English likely reflects a combination of Syrians trying to raise international awareness of war crimes and transnational activists working to mobilize

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[9] Pulling data using keywords with Twitter API often generates noise as some words have different meanings. For example, the keyword "weed" will identify tweets in which people are talking about marijuana, as well as gardening. The fact that the most commonly used words match our subject of interest provides a good indication of the data's quality.

broader outrage over continued impunity. The number of hashtags within tweets ranges from zero to 32, with an average of 3. This suggests that, generally, users were trying to make their tweets reach as broad of an audience as possible since hashtags can be followed by individual Twitter accounts.

Our content analysis goes beyond text and hashtags. Since Twitter allows a limited number of characters (originally 140, now 280 characters), it is common to include URLs of other webpages. These URLs provide information that users want to share with audiences. For example, if users tweet about breaking news, they were likely to include a URL of the story. This necessitates analyzing these URLs. This analysis helps identify major events and issues, as well as other social media presences of users, e.g., blogs, YouTube channels, Facebook pages. We extracted all URLs included in tweets. This resulted in 1,794 unique URLs from 194 domains. Several were from other social media sites, including 23 YouTube videos, 10 blogs, and 6 Instagram URLs among other social media platforms that contain narratives, videos, images, or news articles. Some users repeated their tweets. For example, the Twitter account @TheICMP repeated a tweet 4 times that contained a URL pointing to an ANFNews.com article about 900 bodies being exhumed from mass graves in Raqqa.[10] The maximum number of times a Twitter user repeated their tweet is 4. In our dataset, three Twitter accounts repeated their tweets four times (@TheICMP, @EagleSyrian1, and @SyrianCenter). Some users included other users' tweets as a URL in their tweet. What this tells us is that organizations and individuals use multiple social media platforms to raise awareness in local and international communities about atrocities happening in Syria.

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[10] Available at https://bit.ly/2KSuorP.

Figure 6: Word Usage Among Twitter Users (January 29, 2018, and May 29, 2018)
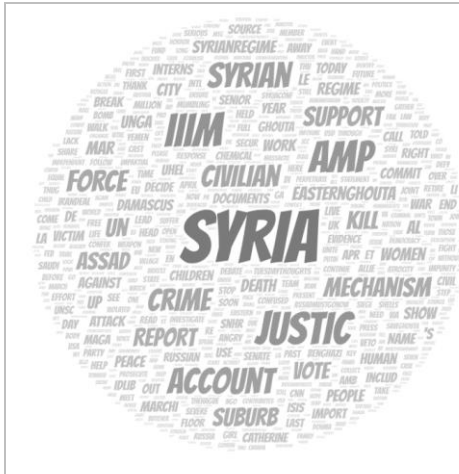
Figure 6a
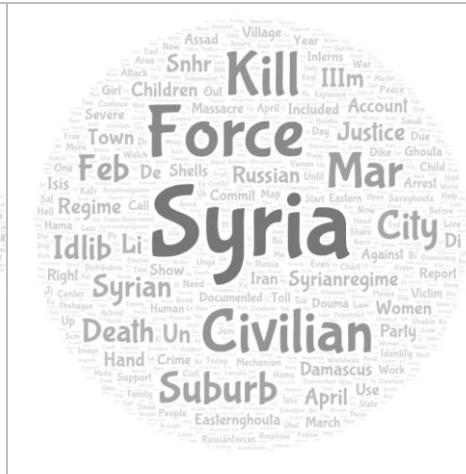
Figure 6b

Figure 6c
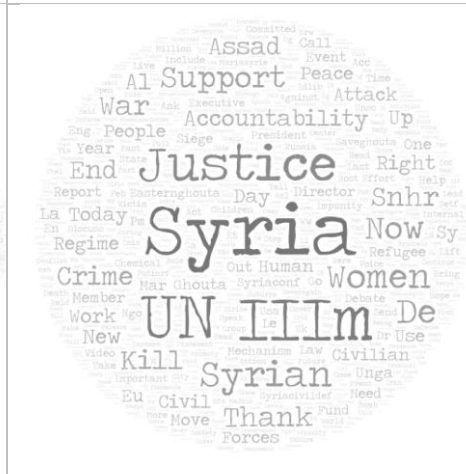
Figure 6d

Table 2: User's Language Distribution

User Language	Number of Texts
English	5264
French	206
Arabic	94
German	91
Ukrainian	70
Spanish	58
Russian	47
Danish	33
Dutch	31
Italian	29
Finnish	14
Japanese	12
Turkish	7
Norwegian	6
Portuguese	5
Persian	4
Korean	4
Swedish	4
Greek	3
Romanian	2
Chinese	2
Czech	1
Hebrew	1
Hungarian	1
Polish	1
Slovak	1

Analyzing a Twitter account's metadata is another important analytical step as it can reveal interesting findings. From this analysis, we found that the majority of the Twitter accounts tweeted in English. French is the second most common language, followed by Arabic (see Table 2 for a rank of user languages). By analyzing Twitter accounts' friends and followers, we found that the distributions of both the accounts' friends and

followers (see Figure 7 and 8) are long-tailed distributions, i.e., a large number of Twitter accounts have friends/followers far from the "head" or central part of the distribution. This indicates that, on average, the majority of the Twitter accounts have more followers than friends, i.e., more people follow them than they follow others, hence these accounts act more like information sources. Only one user (i.e., @bigsalolio) out of 1,450 users shared his location, which is located in Bosnia and Herzegovina. The lack of location sharing in our data is normal as less than 3% of Twitter users share their location (Dredze et al. 2013).

Figure 7: Users' Friends Distribution
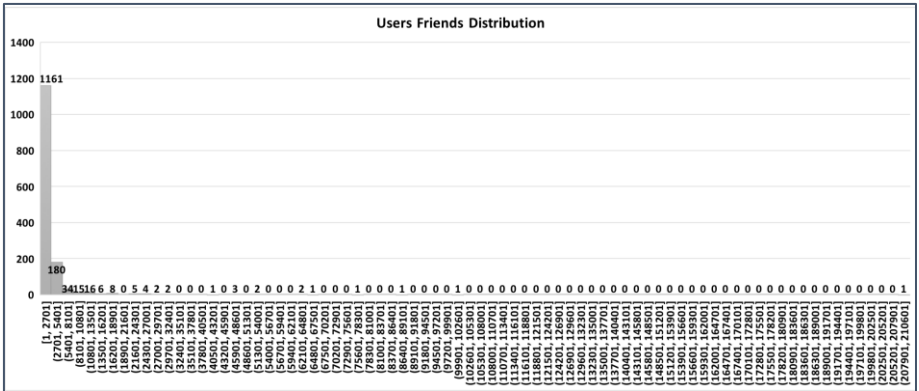
Figure 8: Users' Followers Distribution
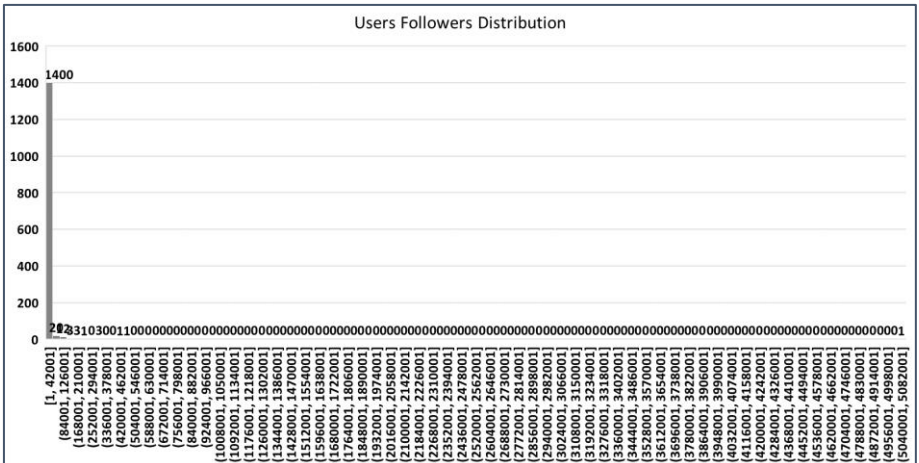
Overall, several interesting points emerge from examining Twitter. First, discussions were highly fragmented. Some Syrian diaspora actors were

better connected to foreign governments and non-Syrian activists, but many users were relatively isolated. Second, relatedly, we see little evidence of pro-regime sentiment in these networks. Furthermore, we find little evidence of the use of computer programmed accounts, known as social bots, which automate the actions of tweeting, retweeting, and mentioning on users'

Figure 9: Bots Scores Distribution
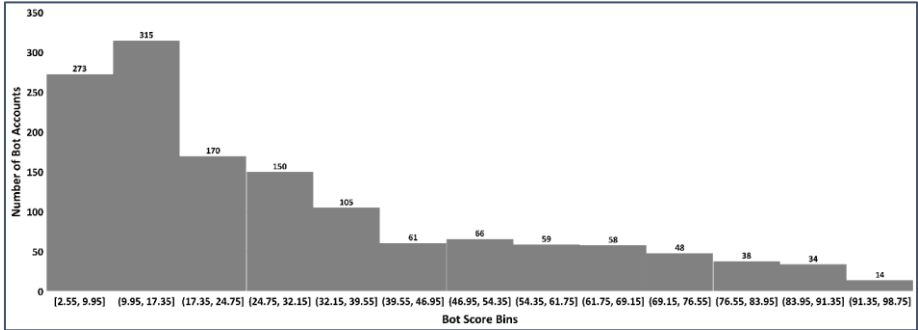
Note: Figure 8 shows the number of bot accounts in each bin of the bot scores. Bot scores are calculated by multiplying the probability of an account being a bot by 100, so we get scores between 0 - 100 instead of 0 - 1. For example, there are 315 Twitter accounts that have bot scores that range from 9.95 - 17.35.

behalf.[11] Overall, this analysis reveals that there was an insignificant presence of social bots in the conversations on violations and justice in Syria, thereby eliminating the concern of such biases (see Figure 9). Third, in the period in which we examine, there is virtually no discussion of justice. While there is some attention to IIIM, there seems to be little optimism that TJ opportunities will emerge.

Data analysis and findings – YouTube

YouTube is another prominent platform used by individuals and organizations to talk about atrocities occurring in Syria and to reflect upon justice needs. Therefore, we next examine the platform, the content available, and how users engage with it. To study activity and content engagement trends from 2012 to 2018, we utilize a variety of data visualization tools.

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[11] We use Botometer API, available at https://market.mashape.com/OSoMe/botometer, to assess the likelihood that a Twitter account is a bot (Davis et al. 2016; Subrahmanian et al. 2016).

Figure 10: Video Metadata Analysis
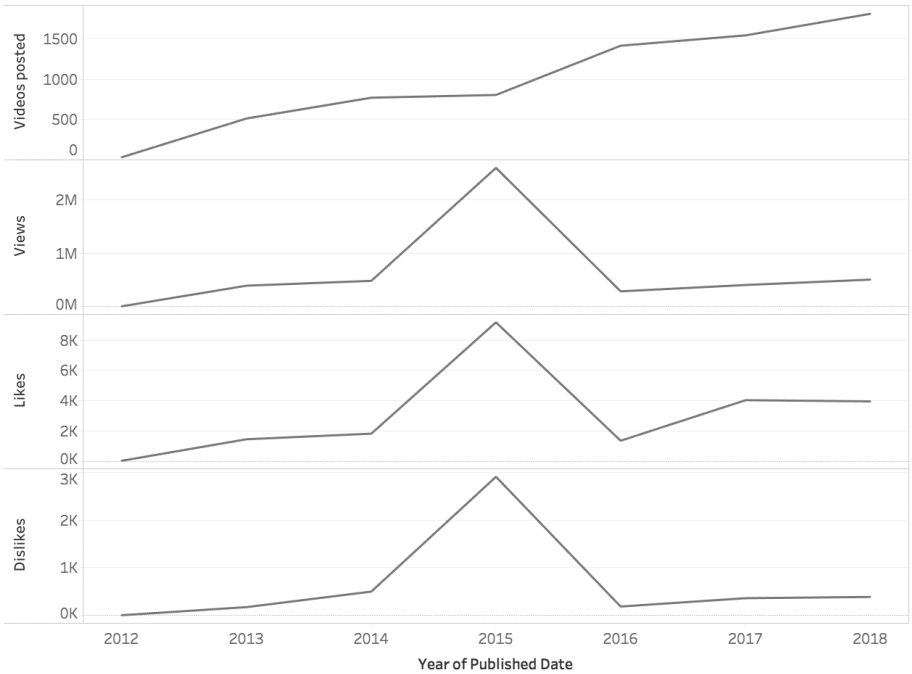
Comments trends for these videos indicate higher user engagement with videos posted between 2014 and 2016 (see Figures 10 & 11). This coincides with the height of influence of Islamic State in Syria and the subsequent migration crisis in Europe.[12] Although more videos were posted after 2016, comment trends indicate that they failed to gain as much traction as videos posted between 2014 and 2016. Viewership data also indicates less interest in more recent events. Nonetheless, users remain engaged with content published between 2014 and 2016, continuing to comment on videos posted during this period at higher rates compared to more recent videos. We next explore this high activity period in greater depth.

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[12] Although the Syrian civil war was a major cause of Europe's migration crisis, it was not the only one as migrants came from a variety of African and Asian countries.

Figure 11: Video Comments Trend Analysis
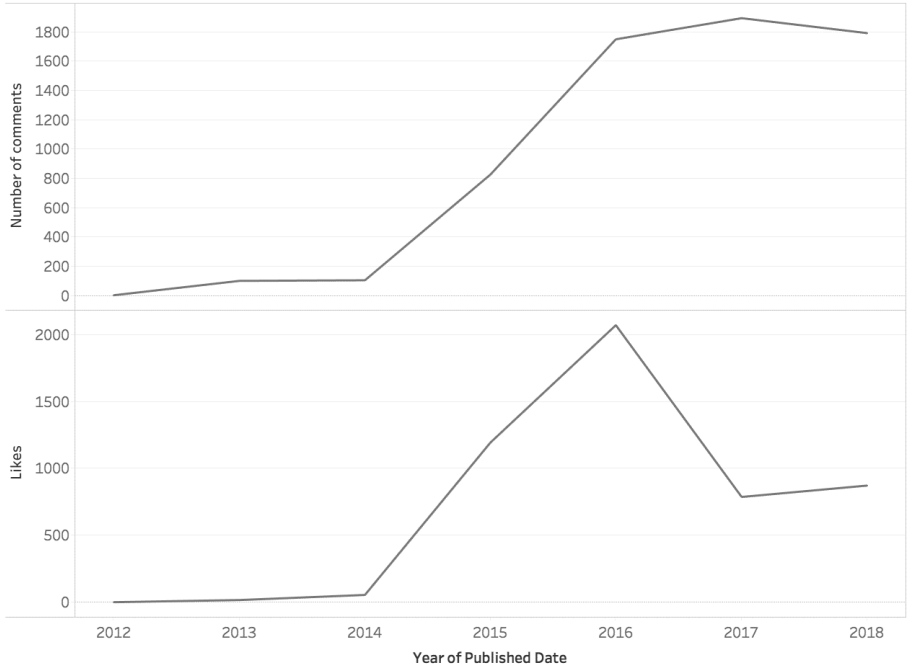
To study atrocity and justice content during the high activity period (2014 to 2016), we analyzed the titles of the videos posted during this period. We generated a word cloud for each month using videos' titles. This resulted in 36 word clouds.[13] Due to space limitation, for representational purposes, we present a word cloud of video titles for June 2014 in Figure 12.

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[13] A total of 72 word clouds can be made available in an online appendix, 36 for video titles and 36 for comments (one for each month from January 2014 to December 2016).

Figure 12: Word Cloud of Video Titles for June 2014

Analyzing these word clouds indicates that videos posted between January 2014 and May 2014 were dominated by Iraq. However, videos after June 2014 were more focused on Syria. Word clouds for months in the latter half of 2014 featured words like "Aleppo", "Doma", "Ghouta", "airstrikes", "shelling", "refugees", "humanitarian", "gas", "destruction", and "victims". For the first half of 2015, the words "warplanes", "Damascus", "shelling", "forces", "Aleppo", "missile", "massacre", "helicopters", and "bomb" figured prominently. Word clouds for July and August 2015 contained words related to the Muslim holy month of Ramadhan like "Ramadhan" and "Sahar". Word clouds for October 2015 to December 2015 featured "Shelling", "Russia", "warplanes", "destruction", "Aleppo", "Damascus", "destroyed", and "helicopters". Word clouds for videos posted in 2016 featured words such as "Russian", "warplanes", "helicopter", "Damascus", "bombs", "shelling", "Idlib", "missiles", "Syrian", "Aleppo", and "Homs" with the greatest frequency.

To study user engagement and responses to the videos, we analyzed comment text and generated similar word clouds. Word clouds for January 2014 to April 2014 contained words related to "Iraq", but word clouds for May 2014 featured words like "war", "America", "army", "military" along with "Iraq". Word clouds for June 2014 to December 2014 had words invoking religion such as "God", "lord", "Arab", "Jews", "Christian", and "Islam". Despite the fact that the channels were seeking to emphasize the violence and humanitarian disaster rather than the religious dimensions of the conflict (recall the word clouds for titles featured terms like "airstrikes", "refugees", and "destruction"), viewers were drawn to the religious dimension of the conflict. Nonetheless, viewers generally do not appear to have bought into the sectarian narrative of the civil war. Rather, comments posted on videos throughout 2015 contained words related to peace like "peace", "science", and "God". For most of 2016, words like "God", "Arab", and "Iraq", (as well as other places within the Arab region) appeared frequently.

In short, the word cloud analysis highlights a few things. As is evident from the word cloud comparison, the interest in the YouTube community of activists and human rights organizations interested in Syria has changed over time. The evolution of issues of concern often closely reflect events on the ground. Moreover, although video titles were related to destruction and crisis in the region, most of the comments were about peace and religion. This contrast suggests differing attitudes toward the war between channel owners and viewers.

We explore this further using sentiment analysis. We used LIWC to calculate the sentiments expressed in the description and comments for each video. LIWC uses a dictionary-based approach in which each word in the English dictionary is classified as having a positive or negative connotation (Tausczik and Pennebaker 2010). For any given text, LIWC counts the number of positive words (positive sentiment) and the number of negative words (negative sentiment). Some words have higher polarity (higher positivity or negativity). Overall, sentiment analysis reinforces the hypotheses derived from the word clouds. Particularly from 2015 onward, the sentiment expressed by channels in their description of the videos is predominantly negative (see Figure 13). By contrast, as illustrated by Figure 14, viewer comments were more positive in tone.

YouTube data suggest several things about sentiment toward atrocities in Syria. First, interest among the YouTube activist community and

human rights organizations reflects real-world events quite closely. Second, although the sentiments reflected in the videos were extremely negative (including sadness, anger, anxiety, etc.), the sentiments reflected in subsequent discussions were more positive, sympathetic, consoling,

Figure 13: Sentiment Analysis of Video Descriptions
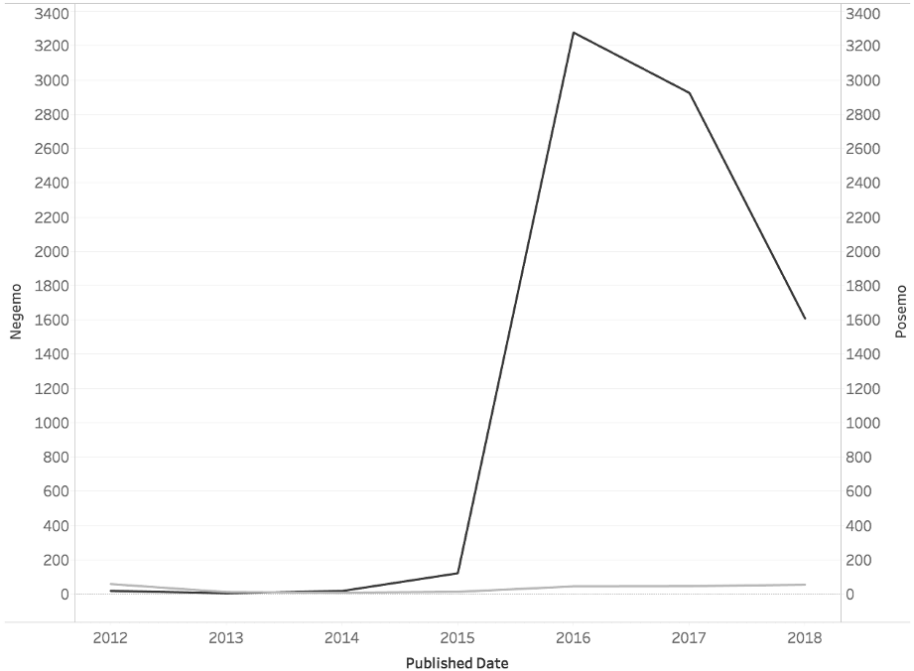
Note: Gray indicates positive sentiment, black negative.

supportive, and encouraging belief in peace and religion. Such discourse reflects a strong community support among the members. This contrasts with a third observation, namely that the relative lack of interest in more recent videos may indicate a growing despair that justice can be achieved for civil war crimes. Fourth, the fact that videos posted since 2016, which continue to seek to draw attention to gross human rights violations and the ongoing humanitarian crisis, have attracted fewer views suggests atrocity fatigue is setting in. At the same time, viewers continue to be drawn to videos from 2014 to 2016. This indicates a fifth finding, namely that users may be more concerned about the effects of the civil war on Europe or the sectarian conflict that Islamic State represents than in the atrocities happening within Syria itself.

Figure 14: Sentiment Analysis of Comments
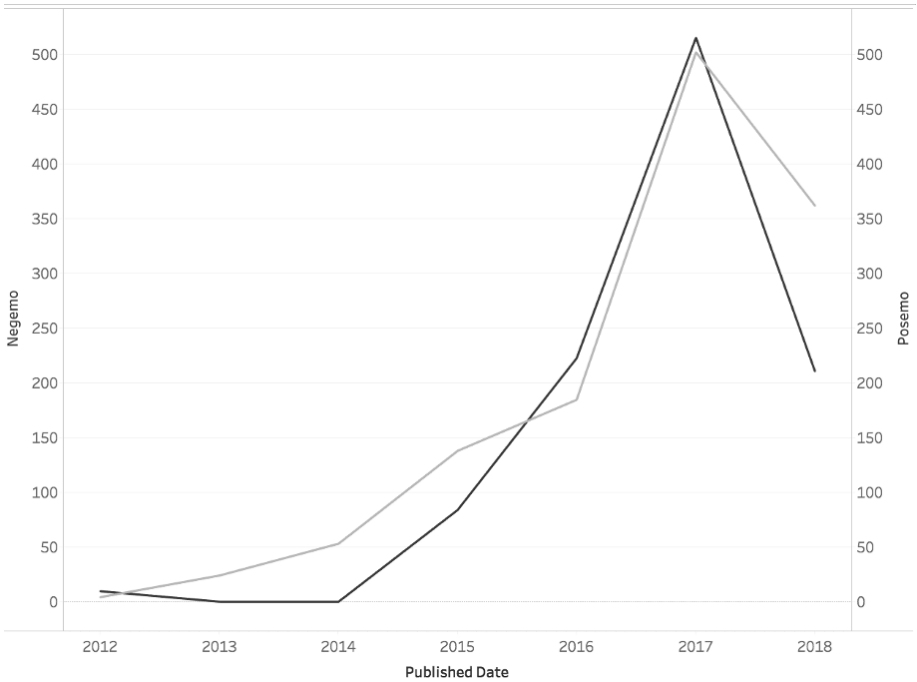
Note: Gray indicates positive sentiment, black negative.

Data analysis and findings – Blogs

Both Twitter and YouTube data analysis demonstrate the strong presence of global voices in Syrian justice discourse. Blogs represent yet another important platform on which Syrians and non-Syrians alike have drawn attention to human rights violations in Syria and reflected upon what justice should look like. Having used seed knowledge and extracted URLs from Twitter and other platforms to identify key voices in the blogosphere, we proceeded to analyze their content.

We first examined the metadata. Metadata is the structured or administrative information included as part of a digital file. It is used for cataloging and preserving information. This allows users to efficiently retrieve information and gives us the platform to analyze the information collected. Thus, for a blog, metadata includes the author's name, blog title,

content, post date, and comments. During the metadata extraction process, we also extracted 1,800 links (1,408 unique links) with an average of more than 3 links per blog post. Links in this context refer to URLs embedded in a blog post, such as hyperlinks to other websites or domains.

Table 3: Top Blog Domains

Domain	Frequency
syrianfreepress.files.wordpress.com	640
qunfuz.files.wordpress.com	209
qunfuz.com	41
cdn.almasdarnews.com	32
21stcenturywire.com	31
www.almasdarnews.com	31
www.guardian.co.uk	27
ccnr.ceu.edu	24
news.bbc.co.uk	16
www.thealeppoproject.com	16
2.bp.blogspot.com	15
theduran.com	14
southfront.org	12
www.facebook.com	11
muraselon.com	10
syrianfreepress.wordpress.com	10
www.awdnews.com	10
www.globalresearch.ca	10

The links reveal several interesting things. First, the volume of links indicates bloggers felt the credibility of their narrative is strengthened by bolstering the empirical and emotional appeal of their posts with other content. Second, the extracted links were from 181 different domains, indicating that bloggers were drawing upon a range of sources. Third, the nature of the domains that were linked most frequently is interesting. Table 3 lists the top domains obtained from the blog posts. We see that most of the blog posts were pointing to other blog sites, whereas comparatively few point to mainstream media sites or popular social media sites like Facebook. This indicates that bloggers seem to prefer everyday experiences over elite perspectives.

Table 4 provides a location distribution of these blog posts. The US is far and away the most prominent location for blogging. At first blush, this is surprising. According to the Pew Research Center, only about 33,000 Syrians have received asylum in the US since the start of the war (Connor 2018). In fact, the UN High Commissioner for Refugees estimates that fewer than 1.5 million of the 13 million Syrians displaced since 2011 have left the Middle East.[14] However, the economic and legal precariousness of most of these refugees makes it unlikely that many were active bloggers. Why then does the United States have the highest number of influential individuals blogging on the Syrian state of affairs even though they host so few refugees? Part of the answer is that the Syrian civil war has mobilized a relatively large, but heretofore apolitical Syrian-American population. According to 2016 US Census Bureau's 2011-2015 American Community Survey, there were approximately 164,000 Syrian-Americans living in the

Table 4: Number of Blog Posts by Location

Location	Blog Posts
United States	5,997
Netherlands	423
Bulgaria	254
Canada	9

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[14] https://www.unhcr.org/en-us/syria-emergency.html.

US. Many non-Syrian activists also were based in the US. In Europe, Germany had one of the largest Syrian immigrant populations before the civil war, but only estimated to be about 30,000 in number (Ragab and Katbeh 2017). This finding reinforces the analysis obtained from Twitter data, i.e., there is a great deal of interaction among Syrian and non-Syrian voices. Furthermore, the large numbers of North American and European bloggers indicate that people were more likely to disclose their location if they were living in North America and Europe where they may feel safer.

Table 5 provides the language distribution for the blog posts collected. We find that English was used almost exclusively. In fact, most blogs were written in English, even though many bloggers' first language is not English. This is evident from the grammatical errors found in the blogs and in their structure. Many of the blog posts were short descriptions and used a lot of photographs and videos in lieu of text. Almost all the photographs contained graphic depictions of violence and its aftermath. The blogs that were richer in content were bloggers who lived in a foreign country or who were part of an organized activist group. Overall, the use of English provides a better medium in which to connect to a broader international audience. Blogs do not appear to be a means through which Syrian and non-Syrian activists were communicating with average Syrians about violence and justice issues.

Table 5: Frequency of Language Use in the Blog Posts

Language	Blog Posts
English	6683
Hungarian	1
Swedish	1
Turkish	1

The data suggest several interesting things about blogging behavior with respect to the Syrian civil war. Figure 15 reveals posting trends over time. Blogging was not a prominent way of discussing the situation prior to 2013. Then, we see a dramatic increase in blog activity from 2013 until 2016, which, like the spike in YouTube interest, coincides with the intensification

of the civil war and the ensuing migration crisis. Yet, since 2016, there has been a significant decline in blogging activity about Syria. One reason may be disinterest or despair. However, the volume of YouTube video posting does not follow the same pattern. In fact, video posting on YouTube has risen constantly each year. What this may indicate is a paradigm shift in social media in which people are moving away from blogging to vlogging to attract a larger audience.

Figure 15: Trends in Blog Post Volume
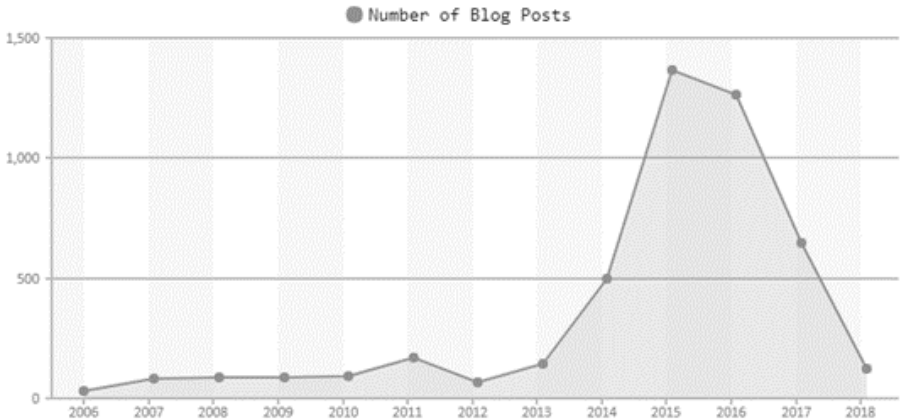
Figure 16 provides a word cloud from all the trending posts from the blogs from 2013 to 2016. What it reveals is that bloggers were overwhelmingly concerned about the violence itself; terms more directly

Figure 16: Trends in Blog Text (2013-2016)

related to justice were not prominent. Figure 17 shows that, based on their posting activity, a small number of bloggers produced most of the content. The blogger 'friendsofsyria' has written the greatest number of posts, 2,791. These posts have generated a good amount of discourse in the blogosphere, producing a total of 1,222 comments. The word cloud of all these posts' titles, presented in Figure 18, provides a better understanding of what the blogger is posting about. Again, the focus is on atrocities and the international community's inaction.

Figure 17: Top Bloggers and Their Posting Volume

Next, we identified influential bloggers that resonated with the community. Influence scores were calculated using the number of inlinks (links that point to a blog post), number of outlinks (external links mentioned in the blog post), and number of comments (Agarwal et al. 2008). The higher the influence score, the more influential the blogger is considered to be. Table 6 shows the top five influential bloggers in our study. Most of the bloggers were seeking monetary donations for humanitarian relief in Syria.

Figure 18: Words Emphasized by 'Friendsofsyria'

Other posts narrate a variety of more specific plights, such the conditions of Syrian refugees or the situation in a particular region of the country. Some of the topics that frequently were discussed include Syrian Kurds, US President Trump, Syrian refugees, ISIS, and foreign military interference. Overall, most blog posts were not providing sophisticated arguments about Syria's justice needs. Rather, most posts consist of brief narratives written in English accompanied by lots of photographs.

Table 6: Most Influential Bloggers on the Syrian Civil War

Blogger	Blog	Influence Score
therevoltingsyrian	therevoltingsyrian.com	582.6
Aymenn Al-Tamimi	www.joshualandis.com	171
Matthew Barber	www.joshualandis.com	151.8
Aron Lund	www.joshualandis.com	146.4
Joshua	www.joshualandis.com	135.9

Conclusion

Social media is an underutilized tool to gauge justice preferences, assess ongoing processes, and document lingering demands. Our findings reveal several important things about justice discourse about Syria on social media. First, the discussion about atrocities in Syria is a global one. Second, at the same, social media discussions were highly fragmented. There were many, disconnected efforts to mobilize people rather than broad conversation among many users. Third, it is unclear how influential Syrians actually were in discussions about their home country. Most social media discussion is based outside of the country and conducted in English. While it is often impossible to know the nationality of users, language and location data suggest these discussions were overwhelmingly rooted in the Global North. The voices of Syrian refugees and internally displaced persons were largely absent. As such, online social networks have reproduced the same North-South inequalities observed in other contexts. Finally, we see more focus on building peace and security rather than justice. This prioritization is consistent with research in other contexts where mass violence is ongoing (Vinck and Pham 2008). Sentiment is generally not specifically pro- or anti-regime. Rather, the focus is on documenting atrocities on all sides and trying to build/maintain pressure to act, with the hope that future opportunities for justice will arise. More troubling, rather than focusing on the human suffering and justice needs of Syrians, much of the discussion focused on the civil war's effects on the Global North rather than on Syria itself.

Social media analysis has the potential to shed light on important TJ issues. To cite contemporary examples, SMA could be used to explore how Colombians think decades of civil war should be addressed, the degree to

which Tunisians are satisfied with the measures taken to address Ben Ali-era abuses, and what should be done about Confederate monuments in the United States. Thus, these methods have much to contribute. Nonetheless, several limitations should be kept in mind. Here, we highlight the issues of data access, quality, and representativeness.

SMA is attractive in part because its flexibility lends itself to rapid reaction to real-world events. Tools such as those used in this article can quickly collect data from a variety of platforms. However, two issues potentially limit access to the data. First, it can be expensive to conduct historical research on some platforms. For example, one can freely collect Twitter data on an ongoing basis. However, data older than a few months must be purchased from Twitter or third-party services. Thus, unless researchers time their studies well or have expansive resources and/or data collection capabilities, longitudinal research can be difficult. Second, evolving public debates about internet privacy can result in a change or loss of access to data without notice, as we experienced with Facebook.

Another issue relates to the quality of the data. For privacy or security reasons, users may misrepresent or withhold data about themselves, which limits the insights that can be gained. As such, it may be difficult to determine whose sentiment is actually being assessed. Research ethics is another area where researchers need to be careful while handling social media data. Although much of social media research is strictly observational and relies upon publicly available information, researchers need to be careful while discussing research findings. Revealing any personally identifiable information of activists (or individuals supporting a cause) may threaten their physical security.

Translation poses another challenge. Social media data is appealing because it potentially represents sentiment from multiple ethnic groups or even globally. However, the data is only as good as the translation tool. The volume of social media data prohibits employing human translators in most instances. Yet, online translation tools, while improving, are far from perfect. Many other data quality challenges are platform-specific.

Finally, as previously noted, the sentiment reflected in social media data may not be representative of society as a whole. Users, particularly those who are prominent content producers, are likely to be more passionate about an issue than the average person. They may be better informed about and/or have a greater stake in the issue. They also are likely to be from a

higher socioeconomic status and be more globally aware than others in society. As such, we should be cautious about drawing overly broad conclusions about what communities want and need based upon social media analysis.

Acknowledgments

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PAC Contributions and US House Votes on Pharmaceutical Regulations

Gabrielle Gies
University of Arkansas at Fayetteville

Karen Sebold
University of Arkansas at Fayetteville

Geoboo Song
University of Arkansas at Fayetteville

Many Americans are concerned that federal policymakers are making public policy that benefits corporate industries, such as the pharmaceutical industry. However, studies have not explicitly examined the relationship between congressional campaign contributions in the House of Representatives and voting behavior on legislation affecting the pharmaceutical industry. This study investigates the relationship between Political Action Committee (PAC) contributions and congressional roll-call voting on pharmaceutical legislation in the House during the 116th session of Congress using contribution data and voting records on pharmaceutical-impacting legislation. We find no statistically significant effect of the total PAC contributions received on voting actions pertaining to legislation that affects the pharmaceutical industry when controlling for other factors, including party identification, tenure, and committee membership. Though there were only three relevant bills that made it to the floor for a vote in the House of Representatives in this session and none in the sessions before or after, further studies should expand the scope to include more bills across multiple congressional sessions, consider the earlier legislative actions that precede roll-call votes on these bills, and utilize better measurements of PAC political activity.

Introduction

The pharmaceutical industry is one of the most prominent businesses in the US, given that a significant proportion (66%) of the population requires prescription drugs (Health Institute Policy 2019). A study conducted in 2018 by the Centers for Disease Control and Prevention (CDC) found that 48.6% of Americans had used at least one prescription drug within the last 30 days (CDC 2023). For Americans with chronic conditions, prescription drugs are necessary for survival and well-being. For example, 98% of people with diabetes use prescription drugs (Health Policy Institute 2019). Pharmaceuticals comprise a large part of the US Gross Domestic Product (GDP). In 2018, 17.6% of the country's GDP was spent on prescription drugs sold in retail pharmacies (Sisko et al. 2019). Per-person spending on prescription drugs almost doubled between 1999 and 2017 (Hernandez et al. 2021). Affordable insulin is one example of a drug central to many recent political debates about affordable health care (Meiri et al. 2020). Affordable medication's role in society cannot be overstated, and much of prescription accessibility is determined by legislation passed by the US Congress.

Many Americans are concerned that federal policymakers are making public policy that benefits corporate industries, such as the pharmaceutical industry (DeSilver and von Kessel 2020; Primo and Milyo 2020). However, studies have not examined the relationship between congressional campaign contributions and voting behavior on pharmaceutical industry legislation in the House of Representatives. Given the importance of pharmaceuticals in the US and the perception that campaign finance plays a role in public policy decisions made by members of Congress, this paper seeks to examine the relationship between campaign contributions and congressional voting actions by estimating the association between PAC campaign contributions and congressional roll-call voting on pharmaceutical legislation during the 116th session of Congress.

Review of the Literature

The US campaign finance system forces electoral candidates to raise contributions from individual citizens and PACs to fund their electoral activities. This private campaign finance system leads to concerns over the corrupting influence of political contributions on elected officials, especially the contributions donated by organizations connected to corporate interests (DeSilver and Kessel 2020). The long-standing concern over money in

politics has led to the growth of research that attempts to study the effects of political contributions from PACs on congressional roll-call votes on legislation related to these groups. These studies indicate that the influence of campaign contributions is challenging to validate, given that elected officials are not legally required to justify or explain their votes. However, most agree that organizations and PACs contribute to electoral campaigns to influence members of Congress, the laws passed, and government oversight.

Wawro (2001) and Powell (2014) point out that it is difficult to prove what causes a legislator's vote on legislation. Many factors likely influence a legislator's decision-making, including their constituent's preferences, party preferences, and political ideology. Furthermore, most legislators are not inclined to reveal their true motivations for their votes on legislation. Esterling (2007) and Maniadis (2009) argue that the influence of PAC contributions on legislative decision-making is not necessarily a negative function for democracy. After all, the campaign finance system in the US allows interest groups to advance their agenda in this manner because it is a democratic method of policymaking (Esterling 2007), and this system forces government representatives to be responsive to their constituents and the groups that represent them, leading to economic efficiency in the marketplace (Maniadis 2009). Ansolabehere, de Figueiredo, and Snyder (2003) argue that if PACs gave contributions to influence public policy, more Fortune 500 companies would operate PACs, and more of these groups would maximize their contribution limits. At the time of their study, only 60% of Fortune 500 companies had PACs, and only 4% of these groups met the maximum contribution limits. However, De Figueiredo and Edwards (2007) believe that it is evident that PACs give campaign contributions to influence legislative decision-making and wonder why these groups would give this money otherwise. These arguments highlight that the relationship between campaign contributions and legislative decision-making is complicated and requires a thorough examination to make generalizable conclusions.

Earlier studies attempt to understand the nature of campaign contributions and their influence on roll-call votes and find differences in when and how PAC contributions appear most effective and influential. Constant (2006) and De Figueiredo and Edwards (2007) find that campaign contributions influence voting on bills most important to a group's policy agenda. Welch (1982), Austen-Smith (1987), Hall and Wayman (1990), and Bronars and Lott (1997) argue that most groups give campaign contributions as reciprocity for prior legislative support and not in exchange for future support. Grier, Gier, and Mkrtchian (2023) believe this is true even when controlling for district-level and individual-level factors and a more

extended period of contributions. Mayhew (1974) found that a legislator uses roll-call votes to signal their direction and intensity to groups. This is more important to the groups than the legislator's ability to affect the outcome of any particular bill. However, Box-Steffensmeir and Grant (1999) found that the most effective legislators attract more donations from PACs. Esterling (2007) also finds that members of Congress receive greater campaign support from groups when they embody higher levels of latent policymaking skills and engage in greater analytical discourse in committees. This supports Bronars and Lott's (1997) findings that last-term Representatives (retiring or running for different positions) receive fewer PAC contributions as a percent of their total fundraising and smaller PAC contributions.

Roscoe and Jenkins (2005) argue that these prior studies produced significant findings between corporate-funded PAC campaign contributions and roll-call votes because their models often focused on a singular measurement of campaign support, the direct contribution. However, there are many methods for a corporation or organization to indicate support for a legislator. For instance, Lowery et al., (2009) find that PACs often contribute in conjunction with their lobbying efforts. Tripathi, Ansolahehere, and Snyder (2017) also discovered that direct PAC contributions employ lobbyists, operate PACs, and make independent expenditures. These groups pay more attention to a legislator's position of power in Congress and less to their electoral chances or partisanship.

One related study examines the impact of PAC contributions and narrows its analysis to the tobacco industry and related legislation. Luke and Krauss (2004) examined donations from tobacco-related PACs to elected members in the 106th Congress and how these contributions affected their tendency to vote for pro-tobacco policies—this period included 1997-1998, a significant period of national debate regarding tobacco policy. They find that over two-thirds of legislators accepted PAC donations from the tobacco industry. There was a significant difference between political party identification and the amount received, with Republicans receiving more and tending to vote more pro-tobacco than Democrats. The amount of money received was positively associated with pro-tobacco votes, even with statistical controls for party, state, and tobacco acreage within the state. The relationship between money and pro-tobacco voting was stronger for Democrats, however. For every $10,000 contribution received, Democrats were 9.8% more likely to vote pro-tobacco, while Republicans were only 3.5% more likely.

Wouters (2020) analyzed the political spending of the pharmaceutical industry by looking at their campaign contributions to federal and state governments, as well as federal lobbying efforts. The study examined spending from 1999-2018, concluding that the pharmaceutical and health product industry recorded $4.7 billion, averaging $233 million annually. Out of over 100 pharmaceutical and health product PACs, the top 20 accounted for over half of the industry's lobbying expenditures. This study also found that 39 of the 40 congressional candidates who received the most contributions had some committee jurisdiction over health-related legislation. This included the Energy and Commerce Committee, the Ways and Means Committee, and the Finance Committee. The total amount contributed to congressional candidates was $214 million across the period. State-level spending was primarily focused on ballot measure committees. Most of these measures were intended to reduce drug costs and were ultimately voted down. This is a significant finding regarding pharmaceutical spending, partisanship, and political actions.

Hypothesis

The mixed results are why previous scholars have emphasized considering multiple factors to establish causation or achieve generalized results. As such, this study examines the relationship between PAC contributions to members of the House of Representatives and congressional roll-call voting on pharmaceutical legislation. Given previous work, the following hypotheses were established:

- H1: There will be a positive correlation between Democratic Party identification and pro-regulation votes.
- H2: There will be a negative correlation between the amount of money received and pro-regulation votes.
- H3: The effect of money received on pro-regulation votes will be more vital within the Democratic Party than the Republican Party.

Testing the validity of these hypotheses will add to the existing literature on PAC campaign contributions and legislative decision-making. If true, then action should be taken to reduce the effect of money in politics or better understand why these trends exist to improve democracy within the US. If false, then concerns about corruption in politics should be partially alleviated, or it should provide support that it is difficult to prove the causal relationship between PAC campaign contributions and roll-call votes in Congress (Wawro 2001; Powell 2014).

Methodology

Contribution data was collected from OpenSecrets, formerly the Center for Responsive Politics (CRP), and voting records on pharmaceutical-impacting legislation from The Library of Congress. Roll-call votes collected for the House of Representatives were limited to the 116th Congress (2019-2020) and PAC campaign contributions to the representatives to the 2019-2020 election cycle. This Congress was selected because it was the most recent complete session during the data collection period. Using records from the Library of Congress (2023), legislation was searched for using the keyword *pharmacy*. All documents except legislation were excluded from the review. Furthermore, only legislation that made it to the floor for a roll call vote was included to match individual representatives' voting records to their individual PAC donations. Legislation that increased regulations on the pharmaceutical industry was selected, with a *Nay* vote indicating a pro-pharmaceutical approach and a *Yea* vote indicating a pro-regulation approach. Only three bills met these qualifications. There were none in the sessions before or after.[1]

HR 3, The Elijah E. Cummings Lower Drug Costs Now Act, established several programs to lower the cost of prescription drugs. This bill attempted to increase the negotiating power of the Department of Health and Human Services (HHS) for brand-name drugs without generic alternatives that account for the most significant portions of national and Medicare spending. Price comparisons to other Western countries limited negotiated prices. The bill was introduced in the House of Representatives in the 116th Congress and passed with a vote of 230 – 192. It was then sent to the Senate but never referred to a committee. It was reintroduced in the 117th Congress but did not make it out of the House of Representatives.

HR 1425, The Patient Protection and Affordable Care Enhancement Act, sought to implement the Fair Drug Pricing Program, which would also direct HHS to negotiate with pharmaceutical manufacturers to set prices on the costliest drugs under Medicare. The bill also would establish an excise tax on manufacturers who did not comply with the negotiated fair price. The House of Representatives passed HR 1425 with a vote of 234 – 179, but it was never sent to a Senate committee.

Finally, HR 987, The Strengthening Health Care and Lowering Prescription Drug Costs Act, aimed to impose several oversight measures on

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[1] The search was widened to include similar healthcare-associated bills, but most were passed as part of an omnibus bill, which complicates the analysis, therefore these bills were not included.

the pharmaceutical industry. Barriers to market entry for generic drugs were decreased through this legislation. Additionally, the bill would give the federal government more jurisdiction over the drug development process, seeking to obtain accurate data on how expensive drug development is and average profits and revenue from drug sales. The bill passed the House of Representatives with a vote of 234 – 183, was sent to the Senate, and referred to the Committee on Health, Education, Labor, and Pensions, but was never brought to the floor for a third reading.

Member data was collected from Congress.gov. Data collection was limited to the House of Representatives in the 116th Congress (2019-2020). Every individual's name, state, gender, race, and party identification were collected from the Congressional or individual campaign websites. Additionally, years of service in the House of Representatives, committee membership, and committee leadership positions were recorded.

Finally, pharmaceutical PAC data was collected in 2023 from OpenSecrets for the 2019-2020 electoral cycle. Contributions of each PAC to individual representatives were collected and then summed up for the total amount of money received by each congressional member. PAC Contributions were collected for the top five pharmaceutical and health products PACs were Amgen, Pfizer, Abbott, AbbVie, and Johnson & Johnson (J&J). Amgen was founded in 1980 and is in over 100 countries, focusing on biological solutions to severe diseases (Amgen 2023). Pfizer has recently become a recognizable pharmaceutical company due to the development and distribution of a COVID-19 vaccine. The company was founded in 1849 and has continued to grow by merging with other companies (Pfizer 2023). Abbott mainly produces health devices and products like glucose monitoring and cardiovascular pumps and is also a pharmaceutical leader (Abbot 2023). AbbVie is best known for producing Humira, a drug used to treat rheumatoid arthritis (AbbVie 2023). Johnson and Johnson also produces health products and pharmaceuticals and, relevant to the study period, was also a leader in producing a COVID-19 vaccine (Johnson and Johnson 2023).

Findings

The demographic makeup of the 116th Congress House of Representatives was slightly more Democratic than Republican and significantly more male and whiter than female and non-white. As seen in Table 1, 53.6% of the House of Representatives identified as Democrats and 46% as Republicans. The remaining two members were independent and

Libertarian. Over three-fourths of the House of Representatives were white, and three-fourths were male. Tenure in the House of Representatives was

Table 1: Frequency Table

Variable	n	Category	
Party	446	Republican (46.0%)	Democrat (53.6%)
Race	448	White (76.3%)	Non-White (23.7%)
Gender	448	Male (76.3%)	Female (23.7%)
HR 3	421	Nay (42.9%)	Yea (51.1%)
HR 1425	413	Nay (40.0%)	Yea (52.2%)
HR 987	416	Nay (40.6%)	Yea (52.2%)

calculated by subtracting the election year from 2020. The average time members had served was 9.57 years (+/– 9.03 years). There was a wide range of tenure, ranging from 0 years (those elected in special elections in 2020) to

Table 2: Summary Statistics

Variable	n	Minimum	Maximum	Mean	Std. Deviation
Tenure	448	0	47	9.57	9.03
Amgen	448	0	20,000	1,451.00	2,594.00
Pfizer	448	0	10,000	1,398.00	2,325.00
Abbott	448	0	10,000	1,311.00	3,008.00
AbbVie	448	0	10,000	1,045.00	2,226.00
J & J	448	0	10,000	936.40	2,161.00
Money	448	0	48,500	6,142.00	9,666.00
Yes Votes	448	0	3	1.56	1.46

47 years. As mentioned, all three pieces of legislation passed the House of Representatives but did not make it through the Senate. Voting tended to occur along party lines, with some variation of individual representatives' votes. A sum of all *Yea* votes was taken for each member and used as the dependent variable for regression analyses. The values ranged from 0 to 3, representing three votes against regulations to three votes in favor of them.

Table 2 indicates that the top five PACs had similar spending patterns, with some discrepancies. They spent over $2.7 million in expenditures to representatives between 2019 and 2020. Each member averaged $6,141 in contributions, with a standard deviation of $9,666 and a significant deviation of about one and a half the average. Total amounts received by each member ranged from $0 to $48,500. Each PAC spent the following amount: Amgen - $650,000; Pfizer - $626,500; Abbott - $587,500; AbbVie - $468,000; J&J - $419,500. Amgen contributed an average of $1,450 per member (+/– $2,594). On the opposite end, J&J contributed an average of only $936 per member (+/– $2,161).

Table 3: Abbot Doantions

Amount	Frequency	Percent	Cumulative Percent
$ -	356	79.5	79.5
$ 1,000	7	1.6	81
$ 1,500	2	0.4	81.5
$ 2,000	5	1.1	82.6
$ 2,500	8	1.8	84.4
$ 3,500	5	1.1	85.5
$ 4,000	3	0.7	86.2
$ 4,500	4	0.9	87.1
$ 5,000	10	2.2	89.3
$ 5,500	1	0.2	89.5
$ 6,000	2	0.4	90
$ 7,500	5	1.1	91.1
$ 8,000	2	0.4	91.5
$ 9,000	1	0.2	91.7
$ 10,000	37	8.3	100

Tables 3-7 display each PAC's contribution patterns, and Table 8 displays the total contribution frequency. The total contribution amount was calculated by summing up the money received across all five PACs. These tables also indicate the top five PACs had similar spending patterns, with some discrepancies. About 40% of congressional members received no contributions from the five PACs examined, explaining the significant deviation of average contributions.

Table 4: Amgen Doantions

Amount	Frequency	Percent	Cumulative Percent
$ -	288	64.3	64.3
$ 500	1	2	64.5
$ 1,000	28	6.3	70.8
$ 1,500	3	0.7	71.4
$ 2,000	23	5.1	76.6
$ 2,500	11	2.5	79
$ 3,000	15	3.3	82.4
$ 3,500	7	1.6	83.9
$ 4,000	6	1.3	85.3
$ 4,500	2	0.4	85.7
$ 5,000	21	4.7	90.4
$ 5,500	3	0.7	91.1
$ 6,000	9	2	93.1
$ 6,500	3	0.7	93.8
$ 7,000	2	0.4	94.2
$ 7,500	10	2.2	96.4
$ 8,000	3	0.7	97.1
$ 8,500	5	1.1	98.2
$ 9,000	2	0.4	98.7
$ 10,000	4	0.9	99.6
$ 12,500	1	0.2	99.8
$ 20,000	1	0.2	100

Table 5: AbbVie Donations

Amount	Frequency	Percent	Cumulative Percent
$ -	335	74.8	74.8
$ 1,000	19	4.2	79
$ 1,500	2	0.4	79.5
$ 2,000	6	1.3	80.8
$ 2,500	23	5.1	85.9
$ 3,000	2	0.4	86.4
$ 3,500	7	1.6	87.9
$ 4,000	2	0.4	88.4
$ 4,500	8	1.8	90.2
$ 5,000	15	3.3	93.5
$ 5,500	1	0.2	93.8
$ 6,000	4	0.9	94.6
$ 6,500	2	0.4	95.1
$ 7,000	3	0.7	95.8
$ 7,500	10	2.2	98
$ 8,500	1	0.2	98.2
$ 10,000	8	1.8	100

Table 6: Pfizer Donations

Amount	Frequency	Percent	Cumulative Percent
$ -	2880	62.5	62.5
$ 1,000	36	8	70.5
$ 1,500	1	0.2	70.8
$ 2,000	24	5.4	76.1
$ 2,500	10	2.2	78.3
$ 3,000	12	2.7	81
$ 3,500	14	3.1	84.2
$ 4,000	6	1.3	85.5
$ 4,500	7	1.6	87.1
$ 5,000	20	4.5	91.5
$ 5,500	6	1.3	92.9
$ 6,000	7	1.6	94.4
$ 6,500	2	0.4	94.9
$ 7,000	6	1.3	96.2
$ 7,500	8	1.8	98
$ 8,000	1	0.2	98.2
$ 9,000	2	0.4	98.7
$ 9,500	1	0.2	98.9
$ 10,000	5	1.1	100

Table 7: J&J Donations

Amount	Frequency	Percent	Cumulative Percent
$ -	344	76.8	76.8
$ 1,000	15	3.3	80.1
$ 1,500	6	1.3	81.5
$ 2,000	11	2.5	83.9
$ 2,500	13	2.9	86.8
$ 3,000	9	2	88.8
$ 3,500	7	1.6	90.4
$ 4,000	8	1.8	92.2
$ 4,500	1	0.2	92.4
$ 5,000	5	1.1	93.5
$ 5,500	1	0.2	93.8
$ 6,000	8	1.8	95.5
$ 6,500	5	1.1	96.7
$ 7,000	1	0.2	96.9
$ 8,000	1	0.2	97.1
$ 8,500	2	0.4	97.5
$ 10,000	11	2.5	100

Regression results are displayed in Table 9. The dependent variable was pro-regulation votes overall, with higher values representing more *Yea* votes across the three pieces of legislation. Five steps of regression were modeled. Model 1 examined the effects of demographic characteristics on voting behavior. Model 2 examined the impact of committee placement, House leadership, and tenure. Model 3 focused on the added effects of party identification. Model 4 examined total contributions. Finally, Model 5 examined the role of party and money while controlling for other variables discussed in the previous models.

Table 8: Total Donations

Amount	Frequency	Percent	Cumulative Percent
$ -	215	48	38
$ 1,000	27	6	54
$ 1,500	6	1.3	55.4
$ 2,000	10	2.2	57.6
$ 2,500	9	2	59.6
$ 3,000	9	2	61.6
$ 3,500	6	1.3	62.9
$ 4,000	6	1.3	64.3
$ 4,500	7	1.6	65.8
$ 5,000	8	1.8	67.6
$ 5,500	3	0.7	68.3
$ 6,000	2	0.4	68.8
$ 6,500	4	0.9	69.6
$ 7,000	9	2	71.7
$ 7,500	5	1.1	72.8
$ 8,000	5	1.1	73.9
$ 8,500	4	0.9	74.8
$ 9,000	3	0.7	75.4
$ 9,500	7	1.6	77
$ 10,000	5	1.1	78.1
$ 10,500	4	0.9	79
$ 11,000	5	1.1	80.1
$ 11,500	3	0.7	80.8
$ 12,000	3	0.7	81.5
$ 12,500	3	0.7	82.1
$ 13,000	3	0.7	82.8
$ 14,000	2	0.4	83.3
$ 15,000	3	0.7	83.9
$ 15,500	3	0.7	84.6
$ 16,000	1	0.2	84.8
$ 16,500	1	0.2	85
$ 17,000	3	0.7	85.7
$ 17,500	5	1.1	86.8
$ 18,500	1	0.2	87.1
$ 19,000	3	0.7	87.7
$ 19,500	1	0.2	87.9
$ 20,000	4	0.9	88.8

$ 21,000	1	0.2	89.1
$ 21,500	3	0.7	89.7
$ 22,000	2	0.4	90.2
$ 22,500	4	0.9	91.1
$ 23,000	2	0.4	91.5
$ 23,500	1	0.2	91.7
$ 24,000	1	0.2	92
$ 25,000	3	0.7	92.6
$ 25,500	1	0.2	92.9
$ 26,000	2	0.4	93.3
$ 26,500	5	1.1	94.4
$ 27,000	1	0.2	94.6
$ 28,000	1	0.2	94.9
$ 29,000	1	0.2	95.1
$ 29,500	2	0.4	95.5
$ 30,000	3	0.7	96.2
$ 30,500	1	0.2	96.4
$ 31,000	2	0.4	96.9
$ 32,000	1	0.2	97.1
$ 32,500	1	0.2	97.3
$ 33,000	1	0.2	97.5
$ 33,500	1	0.2	97.8
$ 34,500	1	0.2	98
$ 35,000	1	0.2	98.2
$ 37,500	1	0.2	98.4
$ 38,000	2	0.4	98.9
$ 39,000	2	0.4	99.3
$ 40,000	1	0.2	99.6
$ 43,500	1	0.2	99.8
$ 48,500	1	0.2	100

Table 9: Regression Results

Independent Variable	Dependent Variable: Pro-Regulation Votes				
	Model 1	Model 2	Model 3	Model 4	Model 5
Party*Money					-0.024
Money				0.019	0.035
Party (1 = Democrat)			0.878***	0.880***	0.890***
Tenure		0.032	-0.076**	-0.075**	-0.075**
Foreign Affairs (1 = Yes)		0.109**	0.031	0.031	0.031
House Administration (1 = Yes)		0.039	0.012	0.010	0.010
Education and Workforce (1 = Yes)		0.006	-0.024	-0.022	-0.024
Judiciary (1 = Yes)		0.022	-0.015	-0.014	-0.014
Natural Resources (1 = Yes)		0.045	0.022	0.023	0.023
Energy Commerce (1 = Yes)		0.100	0.009	0.002	0.000
Financial Services (1 = Yes)		0.038	-0.039	-0.038	-0.041
Appropriations (1 = Yes)		0.050	-0.009	-0.009	-0.010

Armed Services (1 = Yes)		0.045	-0.033	-0.032	-0.034
Ethics (1 = Yes)		-0.032	-0.024	-0.023	-0.024
Intelligence (1 = Yes)		0.047	0.007	0.007	0.007
Small Business (1 = Yes)		0.000	-0.009	-0.007	-0.007
Oversight and Accountability (1 = Yes)		0.008	-0.031	-0.030	-0.030
Agriculture (1 = Yes)		0.082	0.031	0.031	0.031
Homeland Security (1 = Yes)		0.033	0.029	0.029	0.030
Rules (1 = Yes)		0.048	-0.001	-0.001	-0.002
Ways and Means (1 = Yes)		0.105	-0.012	-0.019	-0.023
Transportation and Infrastructure (1 = Yes)		0.039	-0.024	-0.023	-0.025
Budget (1 = Yes)		0.070	0.027	0.030	0.030
Science, Space, Technology (1 = Yes)		0.076	-0.016	-0.014	-0.014
Veterans Affairs (1 = Yes)		0.020	-0.049	-0.049	-0.050

Committee Leadership (1 = Ranking Member; 2 = Chair)		0.043	0.005	0.004	0.003
Race (1 = Non-white)	-0.246***	-0.245***	0.089***	0.091***	0.090***
Gender (1 = Female)	0.251***	0.257***	0.023	0.022	0.021
F		40.2***	3.797***	41.06***	39.5***	38.04***
Adjusted R^2		0.150	0.136	0.701	0.700	0.700
n		445	445	445	445	445

** $p < 0.05$; *** $p < 0.01$

** $p < 0.05$; *** $p < 0.01$

The analysis examined the role of demographic factors, including race and gender, on voting tendencies. As seen in the results of Model 1, race and gender were strong predictors of voting actions. Non-white members were significantly more likely to vote in favor of regulations than white members (–0.246, $p < 0.01$). Female members also voted for regulations (+0.251, $p < 0.01$). Model 2 did not find significant relationships between House membership and positions and voting tendencies, except for a slight correlation between membership on the Foreign Affairs Committee and pro-regulation votes. It is important to note that this correlation is not systematic but spurious. However, this relationship disappears when considering other variables like money and party. When these variables are considered in Models 3, 4, and 5, the statistical significance of this Foreign Affairs dummy variable disappears.

Model 3 reveals that the strongest predictor of voting behavior is party identification. Democrats are more likely to vote pro-regulation than Republicans (+0.878, $p < 0.01$). This finding aligns with traditional Republican Party values of small government and Democratic Party values of supporting government regulations to ensure affordable healthcare. Tenure was also a significant predictor. Those who have been in Congress longer tend to vote against regulations than freshman representatives (–

0.076, $p < 0.05$). Money was not a significant predictor of voting behavior, nor was there an interaction between money and party, as hypothesized. Model 5, which considered all variables, found a significant relationship between the following variables on voting actions: race (+0.090, $p < 0.01$), tenure (–0.075, $p < 0.05$), and party (+0.890, $p < 0.01$).

Discussion and Conclusion

The results of this study support only one of the three predictions, the first hypothesis. The first hypothesis predicted that Democrats tend to vote more for regulations and price controls than Republicans. The second and third hypotheses were not supported. The amount of money donated by pharmaceutical PACs did not explain members' tendencies to vote for or against increased regulations. Similarly, no effect was observed with money within parties explaining voting records. The findings show that PACs target more senior members of the House of Representatives and those with positions on committees influencing pharmaceutical regulations and support earlier studies (Hall and Wayman 1990; Grier, Gier, and Mkrtchian 2023). This might indicate the trust and relationship built over a politician's terms between the individual representatives and lobbyists. Rather than induce individual members of Congress to do their bidding, lobbyists ensure that the relationships and information they have spent time and money on will continue to impact future legislation. Similarly, these senior members may tend to vote against regulations because of continuous relationships with industry and lobbyists. This supports earlier scholars' reciprocity argument for the motivation for PAC campaign contributions (Welch 1982; Austen-Smith 1987; Hall and Wayman 1990; Bronars and Lott 1997).

These findings also support the arguments made by Wawro's (2001) and Powell's (2014) argument that proving the correlation between campaign contributions and legislative support is difficult because it is almost impossible to establish a causal relationship. They argue that lobbyists operate in a reciprocal system with other non-interested lobbyists who contribute to causes outside their purview, and they then reciprocate the donations to their causes. Therefore, it is imperative to assess the content of legislation and the decisions that shape the bill as it comes to the floor. Lastly, there are many methods for supporting a legislator beyond direct donations; thus, a comprehensive and long-term analysis is required to establish a causal relationship. Despite the shortcomings of this limited study, it provides value in its attempt to assess the intersection of factors that explain legislative decision-making. Future research should expand on the

years of roll-call votes and PAC campaign contributions to combat these limitations.

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Limiting More Than Terms?
Exploring How Term Limits Influence Bureaucrat-Legislator Interactions

Kisha Hardwick
University of Central Arkansas

After 30 years of legislative term limits in the American states, there is a well-established understanding that term limits alter the formal relationships between governmental institutions. How the presence of those term limits specifically influences personal behaviors and interactions, especially between legislators and bureaucrats, is an area significantly less explored. Do term limits in a state alter the frequency of interactions between state legislators and state bureaucrats? Analysis of a survey of state agency heads shows that term limits do not influence the amount of general interaction between these two groups; however, a specific type of interaction, information-seeking, is significantly reduced by the presence of term limits in a state. Given the political and practical discussions of both term limits and bureaucratic versus legislative capacity, this research contributes to a broader awareness of how context can shape individual behavior within the larger scheme of state governance.

Keywords: State bureaucracy, state legislators, information seeking, state politics, term limits

Introduction

The relationship between elected officials and unelected bureaucrats holds significant importance within the American scheme of governance. Scholars have long examined characteristics that influence comparative capacity, control, delegation, and discretion within this dynamic at both the state and federal level (e.g., Elling 1992; Hubert and Shipan 2002; Masket and Lewis 2007; Nicholson-Crotty and Miller 2011); and the bureaucracy today has an increasingly pivotal role in traditionally legislative activities like agenda-setting and policy development (Workman 2015). It is evident that bureaucratic-legislative interaction involves much more than simple

"agents" implementing clear directives from political "principals." The individuals who hold these roles have preferences and priorities that are shaped not just by their own views, but by the institutional arrangements in which they operate.

The advent of state term limits in the 1990's provided a watershed of avenues in which to examine formal aspects of government arrangements and politics within in the context of mandated legislator turnover. Despite the extensive research in this area, little is known about the relative effects of term limits on the informal relationships within these institutions, specifically between state bureaucrats and state legislators. While formal measures, such as committee hearings (Sarbaugh-Thompson et al. 2010), audits (Cain, Kousser, Kurtz 2007), and statutory controls (Huber, Shipan, Pfahler 2001), have been explored, the literature lacks an examination of informal activities like networking and information exchange (Vakilifathi 2019). State legislators do not carry out their responsibilities in isolation and term limits can shift the balance of power in state governments (Kousser 2005). Consequently, it is important to understand how relationships vary; and this research aims to fill that gap by examining how informal bureaucrat-legislator interactions are different within the context of term limits in the American states. As Sarbaugh-Thompson et al. put it, "Relationships between legislatures and state agencies are important but poorly understood, especially when states use term limits (2010, 57)."

Does the presence of term limits within a state alter patterns of contact and information-seeking between bureaucrats and legislators? This research question is an exploratory probe into how this one institutional bootstrap may influence not just the formal arrangement of state government, but the informal behaviors of those working within its confines. A significant amount of research contributes to the current understanding of the interplay between bureaucrats, legislators, and term limits. After a brief overview, several expectations about how term limits may impact informal bureaucrat-legislator interactions will be tested with data from a survey of state agency heads regarding their interactions and information-seeking activities. The paper concludes with a discussion of the contributions, limitations, and avenues for further study that the analysis provides.

Literature Review

Beyond the normative question of if there should be more or less legislative control of the bureaucracy, research has attempted to determine if, and to what degree, either group is effective at influencing the other (Huber, Shipan, and Pfahler 2001; Nicholson-Crotty and Miller 2011). State legislators

are known to generally hold a high level of influence on agency decision-making (Brudney and Hebert 1987); and agency officials are vital as they establish a network of influence and information between constituents, other institutions, and their agencies (Berkowitz and Krause 2020; Schneider, Jacoby, and Cogburn 1997; Wilson 1989). The degree of interaction between bureaucrats and legislators may determine their respective abilities to shape outcomes and exert control over each other. Specifically, studies find that measures of increased or decreased "capacity" by either branch explain actual outcomes. While capacity is measured and defined in many nuanced ways across the literature, the general understanding is that it is the resources (i.e., knowledge, skills, abilities, funds) necessary to accomplish a set task. Taking expertise as one example of capacity, research finds that low levels of bureaucratic expertise correspond to a lack of ability to effectively carry out the wishes of elected officials (Huber and McCarty 2004; Krause and Woods 2014). Low legislative expertise likewise corresponds to a lack of capacity for legislatures to direct administrative agencies in meaningful ways (Clinton, Lewis, and Selin 2014). This example highlights Selden, Brewer, and Brudney's point that a "more reasonable approach to understand bureaucratic control is to expect a dynamic relationship between public administrators and elected officials and to acknowledge that forces in the political environment help shape this relationship (1999, 174)." Thus, political variables, like term limits, are crucial to understanding these comparative capacities, relationships and interactions.

Legislative Term Limits in the States

Term limits in the states were fueled by proponents that argued "career" state legislators had lost touch with their constituents, were entrenched with special interests, and were only concerned with reelection. By creating citizen rather than career legislators, proponents argued term limits would limit careerism, promote a more diverse and citizen-centered legislature, diminish the dominance of special interests, create more competitive elections, and increase voter turnout (Kurfirst 1996). Skeptics cautioned that term limits may not deliver on all the potential promises but would surely limit the capacity of state legislators by decreasing experience and expertise.

After 30 years of term-limited state elections, scholars have indeed examined whether mandated turnover in state legislatures delivered on its promises (Carey et al. 2006; Mooney 2009). To provide just a few examples, research has examined how term limits impact campaign financing (Masket and Lewis 2007), voter turnout (Kuhlmann and Lewis 2017), legislator behavior and priorities (Carey et al. 2011; Herrick and Thomas 2005), policy

adoption and diffusion (Miller, Nicholson-Crotty, and Nicholson-Crotty 2018; Olds 2011), and legislator careerism (Lazarus 2006). Particularly for the focus of this paper on the interplay between legislators and bureaucrats, studies found that the presence of term limits decreased bureaucratic oversight and the priority of monitoring state agencies (Sarbaugh-Thompson et al. 2010), reduced the number of bureau audits (Cain, Kousser, and Kurtz 2007), and lessened statutory controls on the bureaucracy (Huber, Shipan, and Pfahler 2001), while bureaucratic discretion increased (Vakililfathi 2019).

The arguments for or against term limits and the ensuing results are essentially about the level of careerism desired by the electorate in their state legislature. What often gets overlooked, however, is how that translates to comparative capacity in regard to the other institutions. As a neutral concept, citizen-legislators (those who are not career politicians) seems like a democratic ideal, but the studies described above highlight just a few ways that results can be contradictory. Additionally, Kousser (2005) details how the limited tenure of term-limited legislators alters their incentives to invest in certain areas of their job, while Herrick and Thomas (2005) find that term-limited legislators are more motivated by policy issues than personal career goals.

Bureaucratic-Legislator Interactions within Term Limited Environments

If the tenure, experience, and priorities of term-limited legislators are altered, do other individuals and institutions behave differently as well? Numerous studies have shown that formal bureaucratic oversight activities by state legislatures declined after the implementation of term limits. For instance, Sarbaugh-Thompson et al. (2010) found that after the implementation of term limits in Michigan, fewer legislators even considered bureaucratic oversight their responsibility. And in California, fewer audits and requests for information were observed after the implementation of term limits (Cain, Kousser, and Kurtz 2007). These measures may not correspond to less control of the bureaucracy, however, as Vakilifathi (2019) shows that term-limited legislatures grant less discretion to bureaucratic agencies through statute, which would counteract the need for formal oversight activities. Boushey and McGrath find that less legislative power (measured through compensation) increases administrative influence in the policy process at the state level, saying specifically that "Eroding policy expertise of state legislators has resulted in increased bureaucratic participation in the policy process, as amateur politicians rely more heavily on professionalized executive agencies to define problems and develop solutions (2017, 85)." In states with term limits, legislators themselves say that they have diminished power while governors and bureaucrats have more (Carey et al. 2006).

Where state legislatures are constrained by term limits or fewer resources, a higher percentage of bills actually come from bureaucratic requests for legislation (Kroeger 2022).

Formal oversight activities and measures of bureaucratic influence like those described so far are not the only ways that state legislators interact with the bureaucracy, however. Administrators and legislators interact informally and have numerous informal relationships, interactions, and communications that influence governance without being readily measurable. It is on these informal interactions that this research focuses. If there are variations in formal bureaucrat-legislator relationships as a consequence of term limits, will informal interactions and networking differ as well?

The Importance of Informal Interactions

Informal interactions are an essential element within government because they can be a venue for pursuing political preferences outside of visible, official channels of institutional procedures. Additionally, much is supposed about informal interaction between elected officials and unelected bureaucrats, but little is documented. Legislators and bureaucrats alike can strategically pursue political or policy goals through informal activities that are external to statutory processes or citizen visibility. From the bureaucratic viewpoint, Kelleher and Yackee (2006) find increasing interactions between state administrators and outside parties (governor, legislators, interest groups) increases the administrators' perception of parties' influence over the agency. These "whispers," frequent informal contact, resulted in perceived influence regardless of actual, measurable impact.

From the legislative standpoint, recent scholarship has examined this dynamic at the federal level specifically through FOIA (Freedom of Information Act) requests for personal legislator-bureaucrat communication (Lowande 2018; Ritchie 2018). Lowande (2018) found the frequency of federal legislators' informal comments and inquiries to agencies far outweighs the time spent in formal witness testimony and is not linked to ideological concerns. Referring to these interactions as "back channel" policy making or representation, Ritchie (2018) discovered that senators strategically reach out to agencies in this less visible means to pursue policy agendas. But in agency-specific studies, Mills, Kalaf-Hughes, and MacDonald (2016) point out that "letter-marking" by members of Congress (to the Federal Aviation Administration) did not have substantive results on agency decisions; while Ritchie and You (2019) discovered that direct contact

(to the Department of Labor) resulted in increased likelihood of decision reversals.

The prevalence of these informal contacts at the federal level suggests that they are integral to intergovernmental relationships across institutions. At the state level, however, this is an area less examined, particularly in light of the differences in state political contexts and institutional arrangements. In one case study of the Georgia Department of Transportation, Thomas, Su, and Poister (2018) found that legislator assessments of administrative performance were mitigated by perceptions of "personal interactions with the department," suggesting that the federal level dynamics are playing out at the state level as well.

Research Question and Hypothesis

We intuitively know that many informal interactions go into political processes. Whether called "back channels", "whispers", interactions or contacts, these studies together show that informal interactions occur and can have significant effects on both perceived and actual outcomes. This study aims to fill a gap in the existing literature on bureaucrat-legislator interactions by examining how informal and less easily quantifiable activities such as contact and information-seeking are altered by one main institutional constraint – term limits. As primarily exploratory, the research that follows addresses the issue of term limits from the bureaucratic point of view by asking: Are the informal interactions between state bureaucrats and legislators influenced by the presence of term limits?

In regard to formal interactions, term-limited legislators view oversight as less of a responsibility and conduct fewer formal activities than their counterparts (Cain, Kousser, and Kurtz 2007; Sarbaugh-Thompson et al. 2010). This suggests that bureaucrats and legislators in term-limited states formally interact less than their counterparts in states without term limits. To initially analyze the research question then, it is hypothesized that: Bureaucrats will have less contact with state legislators in states with term limits (Hypothesis 1).

Specific kinds of informal interactions may play out differently when considering the altered time horizons of bureaucrats and legislators within the context of term limits. Huber and Shipan (2002) argue that levels of bureaucratic discretion are dependent on legislative conflict, other constraining actors, and legislative capacity; term limits are one element that can constrain legislative capacity. State bureaucrats have unilateral discretion in seeking out informal interactions with legislators. One specific

type of interaction that may be dampened in term-limited environments is that of information-seeking. If term limits are successful in limiting careerism, which limits experience and expertise, bureaucrats in term-limited states would have less use for information from legislators than their counterparts in other states. So, when considering a specific type of directional, informal contact, information-seeking, it is expected that: Bureaucrats will seek out information less from legislators in term-limited states (Hypothesis 2).

This final hypothesis is the reverse logic of Hypothesis 2. State legislators in term-limited states, because of their lower capacity in expertise and experience, should have a greater need for bureaucrats with these attributes. Informally seeking out information from career bureaucrats would augment their knowledge and fill the gap created by term-limits. It is hypothesized that: Legislators will seek out information from bureaucrats more often in term-limited states (Hypothesis 3). In a term-limited state, bureaucrats have less reason to seek out the knowledge of legislators, but the legislators would have more incentive to rely on bureaucrats. Taken together, these hypotheses stem from the considerations given to term limits in the existing literature on the relative capacity and importance of bureaucrat-legislator interactions. While straight forward in nature, there is no existing work that elucidates these possible relationships.

Data and Methods

To explore the effects of term limits on bureaucrat-legislator interactions, data are utilized from a survey of top state bureaucrats about their interactions with external political actors. While survey responses are subjective in nature, they have been shown to be an appropriate vehicle to measure influence and interaction from the point of view of those responsible for carrying out policy directives (Clinton, Lewis, and Selin 2014; Dometrius, Burke, and Wright 2008). The established literature on term limits tends to focus on legislator-reported or legislator-observed activities. The emergent body of work on informal bureaucratic interactions is concentrated at the federal level. A focus on the state bureaucratic point of view provides a unique perspective at a comparative level that has yet to be explored.

Survey Instrument

Information was solicited through a direct email survey of state agency heads from across the country. The goal of the survey was to gather information about the informal interactions between top-level state

bureaucrats and other actors in their political environments. The study population was identified from the Council of State Governments *State Directory: Directory III-Administrative Officials 2016,* which identified the individual bureaucrat in each state directly responsible for programs and policies in over 100 different areas. This directory has been used consistently since the 1960's as the source for the American State Administrators Project as well as other research pertaining to state agencies (Bowling and Wright 1998). Bureaucrats heading agencies with tangible, visible programs and products that would be of particular interest to legislators in regard to credit-claiming and constituent benefit were chosen for inclusion in the study. The final population consisted of 793 individual bureaucrats from all 50 states across the general fields of education, economic development, environment/energy, and income/social services.

The survey was administered over three iterations in the fall of 2016. Identified participants were sent an email invitation to participate that included a link to the survey. Follow-up requests for participation were conducted after one and two months. A total of 110 surveys contained complete information to be included in this analysis. There are no respondents in this sample from Hawaii, Massachusetts, Nevada, New Jersey, Pennsylvania, South Carolina, or Utah. Colorado had the most respondents at seven, while thirteen states had only one. The majority of states are represented by two to three bureaucrats in the sample. The complete survey asked participants about their informal interactions with 21 different actors in their political environments as well as individual and agency characteristics.

Dependent Variables

As one piece of the survey, respondents were asked how often they interacted with state legislators in three different ways: general contact (Dependent Variable 1), the bureaucrat sought out policy/program information from a legislator (Dependent Variable 2), and a legislator sought out policy/program information from the bureaucrat (Dependent Variable 3). Response choices ranged from "Never" to "Daily" for each type of interaction and were collapsed into four categories. "Frequent" responses capture interactions that happen at least weekly. "Occasional" indicates habitual, monthly exchanges. A "Seldom" designation means that interactions occur at least once within a calendar year but without routine frequency, and "Never" is self-explanatory.

In responding about general contact, survey respondents indicated the frequency with which they had personal "phone, face-to-face, or direct

email contact" with state legislators. This measure is then a key outcome to examine simple interaction between individuals in these two branches of government and examine Hypothesis 1. There is no directionality associated with the interaction nor does it imply any type of substantial content. It encompasses any type of interaction all the way from water-cooler chit-chat to formal committee testimony. This type of general contact has been used as a measure of networking behavior (Meier and O'Toole 2005; Siciliano 2017) as well as influence (Kelleher and Yackee 2006) in other studies.

While general contact may suggest a level of association or influence between bureaucrats and legislators, a purposeful act such as information-seeking highlights intent, purpose, and the desire for another's expertise or opinion. When discussing the relationship between bureaucrats and legislators within the context of term limits, it is this specific comparative capacity that corresponds and adds to the existing term limit research. For Dependent Variable 2, participants were asked "How often do you seek out the following…for information or ideas particular to your program or policy area?" and for Dependent Variable 3, "How often are you sought after for information or ideas particular to your program or policy area?"

These three variables thus capture a picture of informal bureaucrat-legislator interactions and provide a glimpse into preferences and information flow within the larger context of state government. As dependent variables, they provide a path to understanding how state environments may be shaping individual behaviors. Descriptive statistics for these and all additional variables are presented in Table 1.

TABLE 1
Summary Statistics for Variables Used in Analysis

Variables	Frequency	%	Mean	SD	Min.	Max.
Frequency of Contact with State Legislators	110		1.94	.9	0	3
Never	3	2.73				
Seldom	39	35.45				
Occasional	30	27.27				
Frequent	38	34.55				
Bureaucrat Seeks out Legislator Information	110		1.12	.77	0	3
Never	24	21.82				
Seldom	52	47.27				
Occasional	31	28.18				
Frequent	3	2.73				
Legislator Seeks out Bureaucrat Information	91		1.45	.78	0	3
Never	7	7.69				
Seldom	45	49.45				
Occasional	30	32.97				
Frequent	9	9.89				
Term Limited State	110		.36	.48	0	1
No Term Limits	70	63.64				
Term Limits	40	36.36				
Experience: Years employed in the state	110		17.06	10.41	1	40
Gubernatorial Appointment	110		.38	.49	0	1
Appointed by Governor	42	38.18				
Other	68	61.82				
Staff Size	110		972.	2448.	1.5	15000
Education Agency	110		.28	.45	0	1
Percent of Budget from Federal Funding	110		3.15	1.32	1	5
0	8	7.27				
under 25%	39	35.45				
25-49%	17	15.45				
50-74%	21	19.09				
75%+	25	22.73				
Legislative Professionalism	110		.234	.11	0.048	0.629
Divided Government	110		.41	.49	0	1
Divided	45	40.91				
Unified	65	59.09				

n=110

Independent Variables

The main independent variable under analysis is that of term limits. While term limit laws are not created equal and legislative chambers across the states feel the effects differently, the use of a dichotomous term limit variable pervades the extant literature in this area (Carey, et al. 2006; Kousser 2005). Fifteen states, or 30%, impose term limits on their state legislatures and 36% of the sample come from term-limited states.

In addition to term limits, variables about individual and agency attributes from the survey and state characteristics from various sources were included to account for other influences on these informal interactions between legislators and bureaucrats. First, to control for the experience of an individual bureaucrat, state tenure and agency specific variables are included. Longer employment within government generally increases an individual's expertise and contact network (Bertelli and Lewis 2013; Huber and McCarty), both of which may increase interactions with legislators. Gubernatorial appointment to one's position my create stronger loyalty to the executive branch over the legislative branch. Additionally, we know that legislative relationships with particular agencies vary (Lee 2006; Woods and Baranowski 2006), and complexity and salience are not uniform across policy areas (Ringquist, Worsham, and Eisner 2003). Agency level variables that capture staff size, federal funding, and policy area are utilized to account for variation in the capacity and salience of the units that each bureaucrat heads.

Next, to account for the nuanced nature of "capacity" in state legislatures, legislative professionalism is used as an additional possible explanatory variable. Squire's (2017) legislative professionalism index combines state legislative pay, session length, and staff size into one measure that provides a numerical way of comparing legislative capacity across the states. Term limits are not a factor in Squire's legislative professionalism index. In fact, comparing descriptive statistics of legislative professionalism between states with and without term limits shows that professionalism (as measured by this index) varies similarly across each group. The term-limited states (n=15) have legislative professionalism scores from .103 to .629 with a mean of .278. States (n=35) without term limits have an average score of .203 with a minimum of .081 and a maximum of .431. Legislative professionalism thus captures a range of institutional capacity within legislatures regardless of the presence of term limits.

Finally, the state-level variable of divided government indicates that the bureaucrat worked in a state where party control differed between the governor and either chamber of the state legislature. Divided government has the potential to enhance bureaucratic discretion because of opposing political priorities and has shown to increase administrative rulemaking (Boushey and McGrath 2020).

Are the informal interactions between state bureaucrats are state legislators influenced by the presence of term limits in their states? With data on the frequency of three different types of interactions, the following analysis examines these interactions in several ways. First, a t-test examines

if there are potential differences in the regularity of bureaucrat-legislator interactions solely within the context of term limits. Next, ordered logistic regression models without fixed effects analyze the categorical dependent variables of general contact and directional information-seeking. This is the most appropriate model given the same size and variables utilized. The sample used for analysis is a single point in time snapshot of bureaucratic activities with an emphasis on the probability of membership in each category of the dependent variables given the presence of a dichotomous term limits attribute. Finally, predicted probabilities for the directional models present the results in a visual context.

Results

Table 2 presents the results of a bivariate analysis of each type of informal bureaucrat-legislator interaction and the presence of term limits. For each type of interaction, the mean difference between institutional arrangements (term-limited versus non) was significant. The relationship between general contact and term limits was the weakest of the three (t[108]=1.88, p=.06). This preliminary analysis shows the most pronounced difference on the frequency of bureaucrats seeking out legislators (t[108]=3.71, p=.00). The inverse activity, legislators seeking out information from bureaucrats, was also significant (t[89]=2.63, p=.00). These results suggest that the mean difference is significant between the types of institutional arrangements and warrants further examination to determine the actual influence of term limits.

TABLE 2
Two-sample T Test with Equal Variance

Dependent Variable-Term Limit Status	Observations	Mean	SD	95% CI	t-statistic
Frequency of General Contact with State Legislators					1.88*
No Term Limits	70	2.06	0.87	1.85-2.26	
Term Limits	40	1.73	0.93	1.43-2.02	
Frequency Bureaucrat Seeks Out Legislator					3.71***
No Term Limits	70	1.31	0.71	1.14-1.48	
Term Limits	40	0.78	0.77	.53-1.02	
Frequency Legislator Seeks Out Bureaucrat					2.63***
No Term Limits	60	1.60	0.76	1.40-1.80	
Term Limits	31	1.16	0.73	.89-1.43	

***p < .01, **p < .05, *p <.10, two-tailed test

Table 3 presents full models of ordered logistic regression for each type of interaction considered in this research. While the results presented in Table 2 indicate the high probability of term-limited environments

influencing bureaucrat-legislator interactions, many other factors can be at play within the context of state governance as previously discussed. Model 1 examines the effect of all variables on the general frequency of contact that bureaucrats have with state legislators. Models 2 and 3 examine the specific, directional contact of information-seeking. The dependent variable outcome categories ranged from no (0) to frequent (3) interactions across all models thus the sign of the coefficients correspond to increasing or decreasing occurrence.

TABLE 3
Contact between Top State Bureaucrats and Legislators

	MODEL 1 Frequency of Informal, General Contact	MODEL 2 Frequency of Bureaucrat Seeking Information from Legislator	MODEL 3 Frequency of Legislator Seeking Information from Bureaucrat
Term Limited Legislature	-.52	-1.20***	-1.13**
	(.44)	(.46)	(.52)
Bureaucratic Tenure	-.01	.02	.03
	(.01)	(.02)	(.02)
Gubernatorial Appointment	1.04**	1.21***	.93*
	(.47)	(.45)	(.50)
Agency Staff Size (log)	.40***	.09	.38***
	(.12)	(.11)	(.13)
Education/Training Agency	2.09***	1.26***	1.58***
	(.49)	(.45)	(.51)
Federal Funding	-.43**	-.08	-.37**
	(.17)	(.16)	(.18)
Legislative Professionalism	2.36	-1.36	2.95
	(2.15)	(2.12)	(2.49)
Divided Government	-.06	.40	.20
	(.41)	(.39)	(.45)
LR X²=	50.90	33.43	39.00
Prob>X²=	.	0.00	0.00
Pseudo R²=	0.20	0.13	0.19
	n=110	n=110	n=91

*** p <.01, ** p<.05, *p<.10. Numbers are ordered logit coefficients. Standard errors in paranthesis.

The introduction of other explanatory and control variables into the models elucidates the impact of features beyond the simple presence of the main variable of interest, term limits. This variable continues to have an impact on the information-seeking activities of bureaucrats and legislators but has no statistical significance relating to the frequency of general contact in Model 1.

The first hypothesis offered was that bureaucrats in states with term limits would have less informal contact with state legislators since prior research indicates there is less formal contact within these environments.

While the initial bivariate analysis suggested that the presence of term limits may influence these interactions, the results do not support the hypothesis. The key drivers of general interaction between chief bureaucrats and their state legislators in this analysis center around agency-level characteristics. Bureaucrats who are appointed by the governor, who oversee larger agencies, or who work in education related areas interact more frequently with state legislators. Increased federal involvement (as measured through the percentage of the agencies' budget that comes from the national government) decreased bureaucrat-legislator contact.

Models 2 and 3 analyze specific kinds of contact, information-seeking, initiated by either bureaucrats or legislators towards the other. Hypothesis 2 supposed that the presence of term limits in a state would decrease the frequency of chief bureaucrats seeking out information from state legislators. If, as research suggests, term-limited legislatures have less relative capacity and clout, bureaucrats will have little motivation to seek out legislative knowledge. After introducing agency characteristics, administrator tenure, and state institutional characteristics, this hypothesis is supported. The presence of term limits in a state significantly reduced the frequency with which bureaucrats sought out legislators for information. Detectable differences across the other variables were found for gubernatorial appointment and education/training agencies. Both of these controls increased the likelihood of more frequent bureaucratic information-seeking similar to Model 1.

Hypothesis 3 proposed that legislators in term-limited states would seek out information from bureaucrats more, rather than less, because of the comparative capacity and expertise discussed. Model 3 presents these results, and the term limit variable is statistically significant but in the opposite of the hypothesized direction. Term-limited legislators then, actually seek out information from the professional bureaucrats in their states less frequently than their counterparts in more "professionalized" states. Gubernatorial appointment of a bureaucrat, increased staff size, and education policy area all increase the frequency with which legislators are likely to seek out bureaucratic information. Federal funding has a negative effect.

While the models in Table 3 support the hypothesis that term limits influence the information interactions of state bureaucrats with state legislators, because of the categorical nature of the dependent variable and the binary variable of interest, examining the predicted probabilities of the likelihood for each outcome category can provide a beneficial visual element

to the overall story. Figure 1 presents the predictive margins for Models 2 and 3 based on the term limit variable while holding all others at their means.

FIGURE 1
Probability of Information-Seeking Interactions
Predictive Margins with 95% CIs
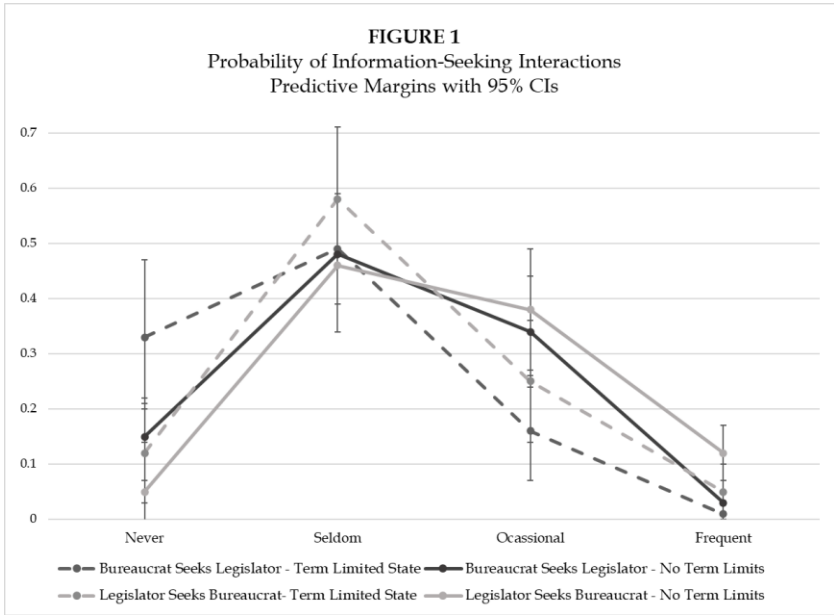
Predicted probabilities for the likelihood of each outcome category based on the presence of term limits show interesting patterns and changes between actors and term limit environments that are not intuitive from the calculations presented in Table 3. Across all four models we can see the relationship between information-seeking frequency and term limits flip as we move from habitual, recurrent interactions in the right two categories (greater probability in non-term-limited states) to infrequent or nonexistent interactions on the left (greater probability in term-limited states).

An interesting piece of Figure 1 is the visualization of the changes between the probability of "occasional" information-interactions versus "never" for bureaucrats in the different term limit environments. These predications essentially flip for bureaucratic information-seeking frequency based on the presence of term limits. Without term limits, bureaucrats are more likely to indicate occasional information-seeking (.34) than never (.14); in term-limited state, the probability of never (.14) is greater than occasional (.33).

Figure 1 details how the highest overall probability of informal information-seeking is "seldom" across all iterations, ranging from .46 to .58. This highest probability translates to information-seeking occurring in both directions, but without any regularity, for the largest percent of the sample. Finally, the probability of the highest information-seeking incidence, "frequent," highlights how legislators (.12 and .05) are generally more likely than bureaucrats (.03 and .01) to seek the other out on weekly basis regardless of the term-limited environment.

Discussion and Conclusion

The models in Table 3 and the graphical depiction in Figure 1 show that informal information-seeking activities between bureaucrats and legislators are significantly impacted by term limits even when accounting for additional factors. The effect of term limits, particularly when included beside other state level variables, like divided government and legislative professionalism, suggest that even after 30 years there is much left to explore and understand about how term limits shape individuals within state environments. Term limits are theorized to alter the balance of power and institutional arrangements in state government. While research has been compiled on many of the formal bureaucrat-legislator interactions within these confines, this study aims to elucidate how informal interactions may be tempered by this institutional limitation. As others point out, these "whispers" and "back channels" are important to governance outcomes (Kelleher and Yackee 2006; Ritchie 2018). Through the analysis of survey data from state agency heads, it was found that while frequency of overall interactions remained consistent between term-limited and non-term-limited states, a specific type of interaction, information-seeking, was significantly reduced.

The findings of this study challenge some existing predictions about the effects of term limits on the behavior of bureaucrats and legislators. Contrary to Hypothesis 1, which proposed a decrease in general contact between bureaucrats and legislators in term-limited state, the data did not support this claim. While formal interactions like hearings and audits decrease in a term-limited environment, there is no significant difference in general, informal interactions as perceived by bureaucrats. As highlighted by the significant variables in Model 1, general interaction seems to be more dependent on agency specific variables than state context. The landscape for agency officials may be more alike than different in spite of variations in state political and institutional arrangements when it comes to basic interactions with actors in their networks. Further research into comparison across types of agencies would help to broaden understanding in this area.

Current literature provides predictions about the results of many delegation and control strategies in the presence of term limits. Generally, term-limited legislators have reduced capacity compared to their counterparts in other states while bureaucrats have more. Hypotheses 2 and 3 apply this theory to the act of information-seeking. It was observed that informal information-seeking by bureaucrats was significantly less in term-limited states, supporting Hypothesis 2 and other established findings. Hypothesis 3 suggested that term-limited legislators would seek out information from bureaucrats more frequently to compensate for their lack of experience or expertise. Surprisingly, the data revealed the opposite to be true, contradicting the hypothesis. This suggests that term-limited legislators are not only less important as information sources to bureaucrats, but themselves limited in utilizing bureaucratic expertise and informal networking to pursue goals. This, along with other studies that have found interesting conflicting results, suggests further investigation is needed to explore why bureaucrats are more institutionally instrumental while being less informally utilized (Baranowski 2001; Nicholson-Crotty and Miller 2011).

The findings from this study suggest that term limits for state legislatures alter not just careerism, priorities, and formal oversight activities, but the individual level behaviors and interactions of bureaucrats as well (Carey et al. 2006; Farmer et al. 2007; Mooney 2009; Sarbaugh-Thompson et al. 2010; etc.). Unintended consequences reverberate through state political systems and form the basis for good (or bad) governance. Normatively, if increased state legislative oversight over bureaucratic agencies is desired, term limits are counterproductive. From a practical viewpoint, this research is important to discussions of adopting, repealing, and amending term limit laws throughout the states.

This study is limited by its focus on a few types of agencies, the small sample size, and the elusive nature of informal interactions. Examination of these same effects across all types of state agencies with a larger population could elucidate or confound the influence of term limits on the interactions between legislatures and bureaucracies. State or agency specific case studies, particularly with elite interviews, may also provide information on why these interactions do or do not take place.

Several questions for further research evolve from this analysis. First, there are easily comparable measures of executive (gubernatorial power) and legislative (legislative professionalism) capacity in the states but similar measures for bureaucratic capacity are not as concise or informative. It would be useful to be able to measure the influence of term limits in

comparison to measures of state bureaucratic capacity. Additionally, this study uses a simple measure of term limits despite knowing that term limit restrictions vary. Further research would be valuable to examine if these differences in information interactions alter given the restrictiveness of term limits or the actual turnover in state legislatures. Finally, the measures of interaction and information-seeking behaviors here are simple designations of frequency; there is no measure of value or actual counts of activity attached to them. The perceptions of administrators towards legislators and vice versa would add another level of insight to the true impact of term limits on informal relationships. Replicating the federal-level FOIA request studies at the state level directly measure communication would be another avenue to compare to the results found here.

In conclusion, this research has important implications for the study of state government and public administration. While behavioral public administration and state institutional research continue to flourish, the combination of the two can be difficult to tease out, leading to less research and understanding about the interplay between these two areas. Considering the importance of the involvement of bureaucrats with legislators in translating policy into outcomes, accounting for influence, interaction, and institutional limitations is a necessary step in understanding state governance; and given the political and practical discussions of both term limits and bureaucratic versus legislative capacity, this research contributes to a better awareness of how state context can shape individual behaviors in the larger scheme of governance.

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Meeting Local Needs with a Unique Revenue Source: A Case Study of Voluntary Property Taxes in Faulkner County, Arkansas

Kim U. Hoffman
University of Central Arkansas

Joseph Yuichi Howard
University of Central Arkansas

This research explores a unique revenue source in Arkansas: the voluntary property tax (VPT). VPTs support specific public services such as animal shelters, emergency services, and cemeteries, among others. When county residents receive their property tax bills, citizens can choose which voluntary taxes, if any, they would like to pay. This study explores the revenue and accountability implications of programs funded by the VPT in Faulkner County, Arkansas. Understanding this type of revenue source is important and relevant at a time when local governments are under fiscal pressure to provide a wide range of services to citizens.

Introduction

Since 2014, the Conway, Arkansas city animal shelter remodeled its surgery room and cat room, installed kennel fencing, and purchased vehicles for the animal control enforcement officers. These service and facility enhancements were paid for, not with existing general revenue from the city, but from a unique revenue source – a voluntary property tax (VPT) earmarked for a specific public service. Unlike the property tax levied for general government services, citizens can choose which VPTs, if any, they would like to pay, and in some cases, how much they want to pay. In use since the 1960's when a VPT was created by the state legislature, 33 of 75 counties in Arkansas levied one or more voluntary taxes in recent years (Hoffman and Howard, 2017).

Local government finance is an increasingly complex challenge as many cities and counties assume greater responsibility for financing public services amidst both external and internal pressures on revenue. Reductions in intergovernmental aid, constraints added to state constitutions and statutes on the ability to raise revenue and the economic downturns of the

Great Recession and the current pandemic create external pressure. Internal pressure arises from citizen demand for high quality local government services alongside citizen discontent over increasing taxes. These challenges have been the subject of many articles and essays in recent years by local government scholars (Ammons et al., 2012; Benton et al., 2008; Chapman, 2008; Greenblatt, 2010; Martin et al., 2012; Warner, 2010). Benton et al. (2008) argue that the ability of local governments to meet these challenges depends upon the "decision making latitude granted by state constitutions and statutes to restructure and modernize their governments and to expand revenue raising capacity" (p. 65).

Against this backdrop, Arkansas' voluntary property tax is an intriguing revenue generation mechanism that harnesses citizens' willingness and preference to pay additional taxes to support services that they want or deem to be important. An earlier study by Hoffman and Howard (2017) identified the number of VPTs in Arkansas counties and cities as well as the programs and services funded by the VPT. In Arkansas, this VPT revenue is used to support public services and programs such as animal shelters, emergency services, public recreation and playgrounds, museums, cemeteries, and early warning sirens. But for state and local governments seeking innovative revenue sources, a measured evaluation of the VPT mechanism's impact, sustainability and accountability is needed. Using a case study method to examine county and city-operated programs funded by the VPT in Faulkner County, Arkansas, this study summarizes previous research on the use and prevalence of voluntary property taxes in Arkansas, assesses the stability and adequacy of the VPT as a revenue source for specific county and city programs, and describes accountability issues and challenges that may arise in those programs funded by the tax. This analysis provides important implications for other states who may consider the creation of a local VPT option.
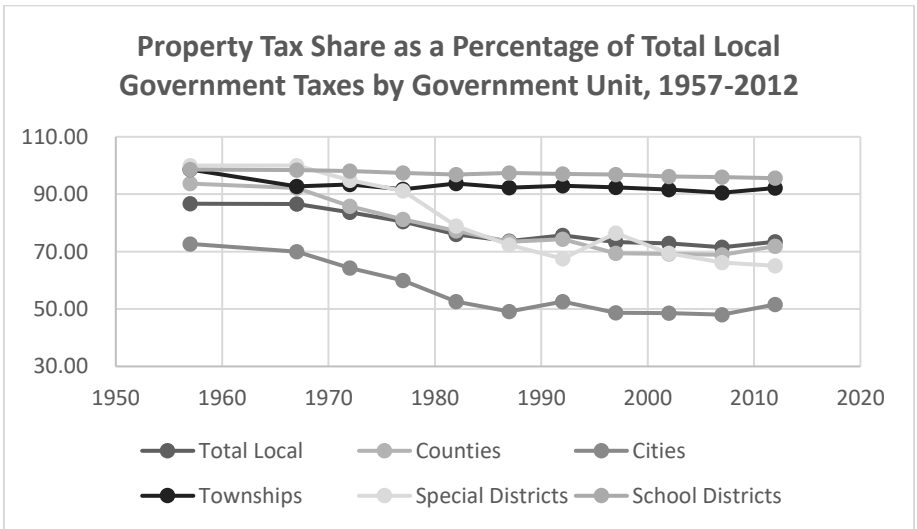
The Local Property Tax

Historically, the property tax has been the primary means in which local governments have responded to citizen demand for services. The local property tax offers several advantages not seen with other major taxes such as sales and income. First, the property tax does not decline dramatically during economic downturns and therefore is more stable than the sales tax or income tax. Second, the services supported by the property tax provide direct benefit to citizens paying the tax and contribute to making property values higher (fire and police protection, streets and sidewalks, and good quality public schools for example) (Mikesell, 2007). Third, the tax on real

property is difficult to evade. Fourth, it allows local governments to achieve autonomy from state and federal control (Bland, 2005).

Despite these advantages, the property tax is one of the most hated by citizens. Citizens surveyed in 2009 by the Tax Foundation ranked the property tax as one of the most unfair state and local taxes. On a scale of one to five the property tax received an unfairness score of 3.6, second only to the gas tax (3.7). State income taxes, motor vehicle taxes, cigarette, beer, and wine taxes all have lower unfairness ratings (Moon, 2009). Likewise, the same poll found that 55% of citizens described the property tax as "not fair" or "not fair at all" (Moon, 2009). Further, attempts to curtail the property tax are the most successful of state and local tax limitation efforts (Henchman, 2012). Common sources of citizen discontent include financial burdens for those, such as elderly residents, who are property rich and cash poor; lump sum payments and "sticker shock"; anxiety about reappraisal and the fear of higher taxes; and inequitable appraisals (Bland, 2005).

Figure 1: Property Tax Share as a Percentage of Total Local Government Taxes by Government Unit, 1957-2012

Source: US Census Bureau, Annual Survey of State and Local Government Finances, Table 2-Local Government Finances by Type of Government.

While still a significant source of revenue for most counties and cities, the share of local property tax as a percent of general revenue has declined while the share of other revenues such as sales taxes, user fees and charges, and miscellaneous sources have generally increased (Bartle et al., 2003; Benton et al., 2008; Chapman, 2008; Urban Institute, 2016). Figure 1 shows that in 1957, counties generated more than 90% of revenue from local property taxes, a share that fell below 80% by 2012. The share for cities dropped from more than 70% to near 50% over the same time period. Figure 1 also indicates that in the late 2000s, the property tax increases as a percent of local government taxes for cities and counties. However, this increase does not negate the decline in the property tax for cities and counties since the late 1950s.

There are several explanations for the decline in the importance of the property tax. First, citizen tax revolts have targeted the property tax over the past several decades. In 1978, Proposition 13 in California dramatically reduced property tax revenues by rolling back and freezing values as well as limiting property tax increases. California's property tax revolt led the way for a flurry of tax limits immediately after the passage of Proposition 13, followed by another period of enactments in the 1990s (Waisanen, 2010). Second, the Baby Boomer generation in the 1950s and 1960s led to an unprecedented increase in children and the need for more public schools, teachers, and school infrastructure. Local governments had to resort to other revenues (sales and income taxes) in order to relieve citizens of huge property tax liabilities (Bartle et al., 2003). Local governments also compete with one another to attract residents and on the economic development stage to attract businesses (Tiebout, 1956). Many of the tools used to lure businesses reduce property tax revenues through tax abatements and other incentive policies. Taken together, tax revolts, demographic challenges, and competition for jobs and economic development have contributed to the erosion of property tax revenues for many cities and counties across the nation. Despite this erosion, the property tax remains an important source of revenue for cities and counties.

Voluntary Property Tax in Arkansas

In Arkansas, the property tax is a local tax that is levied, collected, and administered by county government. The voluntary property tax supports specific public services benefitting the residents in a county or city. Unlike mandatory property taxes paid by all citizens who own property, VPTs are indeed voluntary. Citizens choose to pay an additional property tax for public services provided by city or county government or other organizations in the community. For some counties and cities in Arkansas,

the VPT provides a financial boost for public services such as cemetery maintenance, animal shelters, emergency services, conservation districts, museums, weather warning sirens, and historic commissions.

State statute allows Arkansas counties and cities to levy a VPT if the tax is used for a public entity, for a public service, and for the general public (ACA 26-25-106). Arkansas statute identifies an extensive list of public services for which the property tax can be used: fairs and livestock shows; economic development services; drainage, irrigation, and flood control; animal control; libraries; museums; civic center auditoriums; historical, cultural, or natural site services; fire prevention and protection; child care, youth, and senior citizens services; public health and hospitals; social and rehabilitative services; and solid waste and recycling services (ACA 14-14-802). The use of the VPT in Arkansas goes back to at least the early 1960s. Although the specific legislative motivation for the creation of the tax cannot definitively be known, it appears that the Arkansas legislature believed that local governments should have this additional revenue raising ability. Other states interested in a voluntary tax would likely need enabling legislation to create a similar opportunity for local governments in their states.

A VPT can be levied by a county or city, with the county responsible for collecting the tax and remitting it back to the city. If the city levies a voluntary tax, it must inform the county of the new tax and each year must notify the county through an annual resolution identifying the voluntary levy and the millage rate (property tax rate). The voluntary tax can be placed on real property and/or personal property. In Arkansas, property taxes are classified as real or personal. Real property includes real estate, such as land, residential homes, and commercial buildings. Personal property includes vehicles, boats, trailers, and farm equipment, among others. A VPT is created when interested parties present their idea and rationale for the voluntary tax to a city council or quorum court (the county governing body in Arkansas).The appropriate governing body in a city or county authorizes the tax and millage rate through a city or county ordinance. The tax is then placed on the property tax bill for the covered residents. Unlike mandatory property taxes, voluntary taxes do not always need citizen approval to be put into use. If the tax will be used for a county-operated program, the county quorum court decides whether to levy the tax. If the tax will be used for a city-operated program, the proposed tax is put to a vote of the citizens.

Figure 2: Map of VPT Usage in Arkansas Counties

Source: Survey of Arkansas County Collectors
and Treasurers, 2012-2013 and State of Arkansas
2018 Millage Report.

Map Projection: NAD 1983 UTM Zone 15N.
The boundary file was obtained from
htt://www.GADM.org. Map created by JPS.

Tax

Yes

No

0   15   30   60 Miles
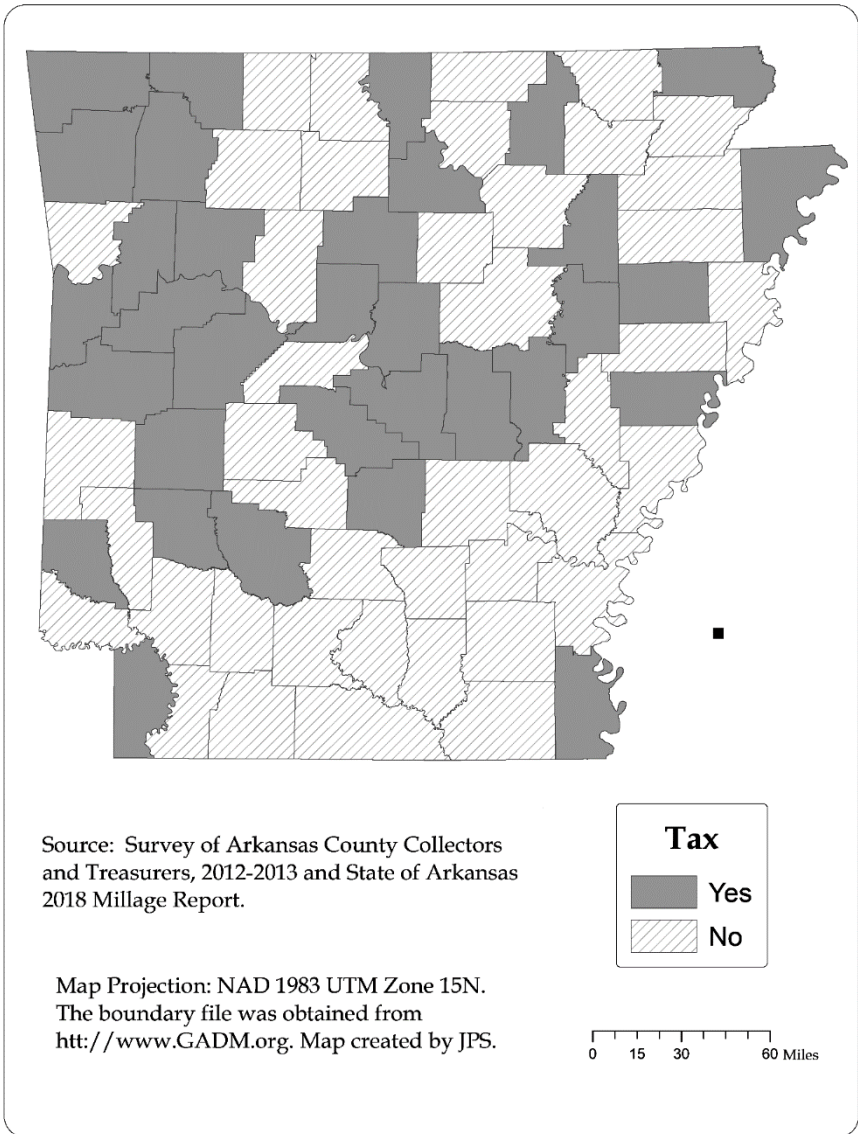
When residents receive their property tax bill, they have an option to pay the
amount of their property tax with or without the voluntary tax. In counties
with multiple voluntary taxes, residents have the ability to decide which
voluntary tax, if any, they would like to pay. In at least one county

(Faulkner), residents can choose to pay the stated millage rate or choose to pay what they would like for the particular tax (Latimer, 2009).

The VPT appears to be unique to Arkansas. Of the 75 counties in Arkansas, 33 counties levy one or more voluntary taxes. As shown in Figure 2, these taxes are found across the state except for the southern part of Arkansas. Those counties that employ a voluntary tax are spread across the rest of the state and vary from the second smallest county, Woodruff County with little over 7,000 residents, to the largest county, Pulaski County with over 390,000 residents. Moreover, at a time when citizens often resist tax increases, at least three Arkansas counties have recently enacted one or more VPTs to pay for needed services. A tax was established to fund animal control in Saline County (2014) and Pulaski County (2016), EMS/ambulance services in Benton County (2014), and to support the county detention center in Saline County (2018).

VPTs in Arkansas are used for soil conservation, recycling programs, volunteer fire protection, animal welfare, weather warning systems, historic preservation, and other purposes. For the county voluntary taxes, soil conservation is by far the most common with 18 counties using a voluntary tax for this purpose. The most common use of a city voluntary tax is for a city volunteer fire department in nine cities. In addition to the variety of purposes, the millage rate set for each of these taxes varies from 0.2 to 5 mils or in some cases a set dollar amount (Hoffman and Howard, 2017).

The Elements of a Good Revenue System and Accountability

Existing literature suggests several basic goals or principles that governments should pursue when designing a sound revenue policy. While there are many standards for what constitutes a high quality revenue policy in the literature (Bland, 1997; Brunori, 1997; Cline and Shannon, 1983; International City/County Management Association [ICMA], 1996; Mikesell, 2007; National Conference of State Legislatures [NCSL], 2007), this research evaluates the VPT in Arkansas based on four standards of sound revenue policy that appear consistently in the literature: citizen acceptability, stability, sufficiency, and cost efficiency. Alongside these basic principles, this article also evaluates VPTs on the basis of a fifth factor that has long been a concern of good governance – accountability.

Standards of a Sound Revenue Policy

First, citizen acceptability encompasses several concepts including whether revenues reflect the preferences of a majority of citizens in the community, fairness, and understandability. Bland (1997) states that "a politically acceptable revenue policy reflects the political environment of the community - and changes with it" (p. 16). Local government officials must periodically assess the political environment and design a revenue system that meets the wants and needs of citizens. Fairness is another aspect of citizen acceptability whereby citizens are more likely to accept a tax or non-tax source if it is perceived that the burden is distributed fairly among citizens. Fairness, of course, can mean many things to different people. Fairness can be based on the benefits-received principle where those who benefit from or use the service actually pay the tax or charge. For example, citizens perceive such revenue sources as fair because only those who use the service pay the charge. Fairness may also be based on one's ability to pay, whereby citizens with greater income bear the higher tax burden. Understandability is another component of citizen acceptability and encompasses the idea that citizens have some knowledge of what their taxes are paying for and how they are calculated.

The second common standard is stability. Revenues should provide a stable source of funds at a sufficient level of funding for services. NCSL (2007) states that to meet revenue needs, a tax system must have stability, certainty, and sufficiency. As stated above, the property tax is considered one of the most stable revenue sources. Unlike sales and income taxes and some non-tax revenues, property tax revenues fluctuate less during changes in the local and national economies. However, the very nature of the voluntary property tax will likely make it less stable as a revenue source. In fact, previous research lends some support for this assumption. Hoffman and Howard (2017) analyzed six programs funded by the VPT over a five-year period and found that VPT revenues fluctuated from year to year in four of those six programs more so than general property tax receipts for the same time period. Also, for four of the six programs studied, the VPT declined each year during the time period under review. Several local and statewide newspaper articles on voluntary taxes in Arkansas reveal that once created, revenue projection is difficult (Latimer, 2009; Short, 2012; Boozer, 2013). County treasurers are challenged to determine how many taxpayers will contribute initially with participation rates likely to vary from year to year. For example, a voluntary tax in Jackson County, Arkansas saw a significant decline in revenues from 2010 to 2011 (Newport Independent,

2012). While the general property tax is quite stable, the voluntary version may have stability issues.

Third, revenues should be sufficient and should grow adequately enough to cover expenditures (ICMA, 1996). Sufficiency can also mean reducing dependency on a single revenue source or reducing dependency on funds from another level of government. NCSL (2007) states that a "high quality revenue system relies on a diverse and balanced range of revenues" (p. 3). In a previous study, several programs in Arkansas funded by the VPT rely significantly on the tax as a source of funding (Hoffman and Howard, 2017). Without this tax, the programs and the benefits each provide might not exist for citizens. The potential instability of the tax coupled with the essential nature of these programs is likely to make program budgeting and planning difficult for the program administrators.

Cost efficiency is the final standard. Brunori (1997) states that "the administrative requirements of sound tax policy revolve around minimizing the costs of compliance for taxpayers and of collection for the government" (p. 53). This study assesses the county administrative costs to levy, collect, and remit the voluntary property. Previous studies and newspaper articles found that some counties in Arkansas charge an administrative fee (Hoffman and Howard, 2017) and at least one county in Arkansas spent over $50,000 in computer software changes to implement the VPT (Pettit, 2017).

Standards of accountability

In recent years, accountability has become a cornerstone of understanding government and organizations at all levels from international to local and from public to nonprofit organizations (see Bovens et al., 2014 for a comprehensive overview of accountability). Given its central place in good governance, accountability has a long history of particular importance to scholars of public administration (Considine, 2002; Finer, 1941; Friedrich, 1940; Koppell, 2005; Roberts, 2002; Peters, 2014; Schillemans, 2011). Peters (2014) contends that administrative accountability is both an external and internal process that is "an increasingly complex and difficult concept for public administration, and also becomes more difficult to ensure" (p. 212). Part of this difficulty of accountability is due to lack of a clearly accepted definition of this concept.

In his important work on accountability, Koppell (2005) provides a five dimensional framework of accountability to allow for more clarity in analyzing accountability and organizational effectiveness. He describes five distinct dimensions of accountability as transparency, liability, controllability, responsibility, and responsiveness. In previous research, Hoffman and Howard (2017) noted issues surrounding the accountability of the VPT particularly regarding the dimensions of controllability and responsibility. Controllability speaks to the classic principal-agent relationship - do elected officials have the ability to control programs and their administrators? The responsibility dimension is concerned with how well the organization follows rules such as legal requirements. Table 1 provides a brief definition of each factor.

Table 1: Standards of a Good Revenue System and Accountability

Standard	Definition	Citation
Citizen Acceptability	system of revenues reflects: • preferences of a majority of citizens • fairness • understandability	Bland (1997)
Stability	source of funds for services is consistent	NCSL (2007)
Sufficiency	funds are adequate and grow alongside expenditures, not dependent on a single revenue source or other level of government	ICMA (1996) NCSL (2007)
Cost Efficiency	minimizes costs for taxpayers and governmental collection	Brunori (1997)
Accountability	maintains clear principal-agent relationship; supports following formal and informal rules	Koppell (2005)

Data and Method

This research utilizes a case study method based on a purposeful sample of VPT receiving programs in one illustrative county. Faulkner County, the fifth largest county in the state with a 2015 population of 119,343, was chosen for this case study because it is one of the counties with the greatest number of approved voluntary taxes, represents some of the oldest and newest VPTs approved in the state and allows study of both county- and city-operated programs.[1]

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[1] There are nine VPTs in Faulkner County. This includes four county-wide VPTs (Faulkner County Museum, Faulkner County Emergency Squad, Faulkner County Animal Control, and Faulkner County Soil Conservation) and five city VPTs (City of Conway Animal Shelter, City of Conway Parks and

This study focused on five of the nine VPT funded programs in Faulkner County (county museum, county emergency services, city animal shelter, city parks and recreation, and city cemeteries). The five programs were chosen because the VPT represents a significant source of program funding and where sufficient information and data were available. Additionally, the Faulkner County Animal Control facility has not yet been constructed and no VPT funds have been expended for that purpose. The soil conservation program, administered by the Faulkner County Conservation District, had its VPT reallocated to the Faulkner County Extension Service in 2018 by the Faulkner County Quorum Court. In 2019, The quorum court subsequently revived the VPT for soil conservation for the 2020 tax year (Faulkner County Reports, 2020). Therefore, the VPT was not in effect for Soil Conservation during our study period. We were not able to conduct interviews or collect data from the City of Vilonia Fire Department and City of Mayflower Cemetery.

Data for this study come from personal interviews with the Faulkner County treasurer, the Faulkner County administrator, and the City of Conway financial director. In addition, this study interviewed the county and city program administrators from the following programs: Faulkner County Museum, City of Conway Robinson Cemetery, and City of Conway Animal Control. The personal interviews were conducted in person in spring and summer of 2018. This study also reviewed county and city ordinances and resolutions creating and re-authorizing VPTs. Finally, revenue collection data was also obtained for each VPT.

This data was then used to evaluate whether the examples of VPTs found within Faulkner County meet the five criteria of a good revenue system found in the literature. Interviews with the county treasurer, county administrator, and city financial director yielded data on the overall stability and adequacy of the voluntary tax, information on collection and remittance, as well as identifying how some of the programs use the funds. Interviews with the program administrators provided more specific information about the use of the funds, their adequacy for the program, and challenges associated with the funding source. The county and city ordinances provided an understanding of the justification for the voluntary tax and the

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Recreation, City of Conway cemeteries, City of Vilonia Fire Department, and City of Mayflower cemetery). The city and county VPTs are used to support programs and services deemed important to the citizenry in the respective jurisdictions.

service that it funds. The ordinances further identified any county/city monitoring or evaluation activities associated with the programs funded by the voluntary tax. The revenue collection data was used to determine the stability and sufficiency of the VPTs.

Table 2: Description of Programs Funded by the VPT

Program	Year of VPT Creation	2020 Program Budget	VPT Revenue as % of Total Program Budget	Full-Time Employees	Projects Funded
Faulkner County Museum	2001	$77,643	95%	1	Support and operation of museum
Faulkner County Emergency Squad	1978	$136,951	71%	Volunteers only	Purchase of wetsuits, defibrillators, radios, various equipment for rescue dogs and rescue teams
City of Conway-Animal Shelter	1966	$496,164	VPT used for special projects only	8	Surgery room remodel, installation of kennel fencing, vehicle purchase, replacement of air conditioners
City of Conway-Parks and Recreation	1964	$3,213,590	VPT used for special projects only	34	Construction of maintenance shop at a multi-use indoor/outdoor sports complex
City Cemeteries*	1970s**	N/A	N/A	0	Cemetery care and maintenance

Source: Budget/Employment Data from City of Conway Annual Operating Budget, 2020 and Faulkner County Annual Operating Budget, 2020; Projects Funded from interviews.
* City cemeteries are not maintained by the City of Conway, therefore, no budget data was available.
** VPT for city cemeteries in existence at least since the 1970s.

Programs Funded by the VPT

This study focuses on the following programs funded by the VPT: County Museum, County emergency squad, Conway animal shelter, Conway parks and recreation, and Conway cemeteries. Table 2 provides a description of the programs funded by the VPT used in this study. The

programs funded by the voluntary tax in Faulkner County include vital public services such as emergency and fire services, cultural and recreational services such as the county museum and city parks and recreation, and other important services to citizens such as animal shelters and cemeteries. Although the revenue received from the VPT makes up a small portion of total property tax revenue for both the county and city administered programs in Faulkner County, the VPT is a significant portion of revenues for several of the programs described in this study. For each of the five programs administered by either the county or city, the voluntary tax collections range from 0.2% to 0.8% of total property tax revenue collected (Arkansas Legislative Audit, Reports 2017). For comparison, voluntary tax revenue as a percent of total property tax revenue for three counties (Benton, Pulaski, and Saline counties) with at least one voluntary tax and with similar economies and demographics as Faulkner County shows variation, but generally indicates that voluntary tax collections are a very small percentage of overall property tax collections. Among these four counties (Faulkner, Benton, Pulaski, and Saline), 14 programs are funded with the voluntary tax. Voluntary tax collections as a percent of total property tax collections range from a high of 16.2%, a low of 0.1% with a mean of 2.5% (Arkansas Legislative Audit Reports, 2017).

Results and Discussion

In an effort to assess whether the voluntary property tax meets key criteria for a good revenue source, this study reviewed the VPT against five factors: citizen acceptability, stability, sufficiency, cost efficiency and accountability. A summary of results is presented in Table 3, followed by discussion for each criteria in turn.

Table 3: Evaluating the VPT on Five Criteria

Standard	VPT Performance
Citizen Acceptability	Mixed
Stability	No
Sufficiency	No
Cost Efficiency	Yes
Accountability	Yes

Citizen acceptability encompasses three components: 1) reflecting citizen preferences, 2) fairness, and 3) understandability. Collection rates for the county-administered programs are very low, indicating that few citizens pay the voluntary taxes for the county-operated programs. Table 4 shows that of the four county-administered programs, the emergency squad has the highest collection rates over the four-year period, with the county museum and soil and water conservation having the lowest collection rates.

Table 4: Collection Rates for County-wide Programs Funded by the VPT

Year Taxes Paid	Emergency Squad	County Museum	County Animal Shelter	Soil and Water Conservation*
2018	4.06%	3.13%	3.47%	3.10%
2017	4.55%	3.13%	3.37%	3.08%
2016	5.81%	4.61%	4.98%	4.61%
2015	5.92%	4.77%	5.13%	4.77%

Source: Faulkner County Treasurer, March 2019.
*After 2018, the VPT is allocated to the Faulkner County Extension Service.

Interestingly, collection rates for all four programs declined from 2015-2018. Of the four programs, citizens appear to judge the emergency squad as the most important service, therefore, more citizens are willing to pay the tax for a valuable service. It should also be noted that during the 2015-2018 time period, the creation of the county animal shelter received significant press coverage in the local newspaper. In this case, the county had been collecting the VPT for the creation of a county animal shelter for several years. The shelter has yet to be built. News coverage highlighted citizen frustration with paying a tax and not seeing results. Citizens, therefore, could be making conscious decisions to either support an essential service (emergency squad) or withhold the tax for a project that they feel is not meeting their needs (animal shelter). The preliminary data seem to indicate citizen preference for different programs. An interviewee stated, "people are going to tell you what they want…[the VPT] gauges what citizens want." Although not part of the scope of this study, a citizen survey could be useful in determining if citizens are indeed making conscious decisions to support some VPT-funded programs over others.

As stated above, fairness can be based on the benefits-received principle where those who benefit from or use the service actually pay the tax or charge. For example, a citizen of Conway may choose to support the

voluntary tax for parks and recreation because their children use the softball fields or the playgrounds. Someone who does not use these facilities may be less likely to pay the voluntary tax. Understanding the motivations behind the participation rates should be the focus of a future research project.

Regarding understandability, citizens may be more likely to pay a VPT if they are informed of the purpose of the tax. This implies that government entities must appropriately advertise or communicate the purpose of the tax and how the tax revenue is used. Interviews indicate that, currently, there is no centralized or uniform advertising done by the Faulkner county government. Advertising the VPT is the responsibility of the individual programs. At one time, a tax bill insert was placed in the property tax bill by the county, but that practice has ceased and there is no data indicating whether the tax insert led to increased VPT revenue. Program directors interviewed mentioned several types of advertising they have used for their program such as sending postcards to citizens separate from the tax bill, posting information on a Facebook page, and sending letters to citizens explaining the purpose of the VPT. For example, the Faulkner County Emergency Squad uses its Facebook page to advertise the tax, describe the services that the squad provides the citizens, and appeals to taxpayers to pay the tax (Faulkner County Emergency Squad, 2018).

To summarize from the preceding discussion, the performance of the VPT as used in Faulkner County on the criteria of citizen acceptability is mixed.

Stability

As discussed earlier, revenues should provide a stable source of funds. Previous research finds that the VPT is a volatile tax (Hoffman and Howard, 2017). Due to the unpredictable nature of the VPT, the study further explored how the county treasurer and city finance director deal with this volatility regarding revenue projections and how program administrators deal with this volatility regarding program budgeting and planning. According to the county treasurer, a more conservative approach to revenue projections is used for the voluntary tax than for other county taxes. For example, when forecasting revenues for taxes other than the voluntary tax, the treasurer projects at 98% of the previous year's collections. For the voluntary tax, the treasurer projects at 94% and also reviews the percentage of taxpayers who pay the tax from previous years. The city

finance director reports a similar conservative approach by reviewing collections from a three to five year period and generally using the same figure as the previous year.

Table 5 shows that during the 2015-2018 time period, collections fell each year for all four county-operated programs and the two city-operated programs, indicating that this particular revenue source is not stable. An interviewee stated that the VPT is, "very problematic both for projections, [for the county] treasurer and for the program itself…" This research interviewed program directors from both county-administered programs and city-administered programs to better understand how they use these revenues and how they budget for future operations.

Table 5: Revenue Collections for Programs Funded by the VPT

Year Taxes Paid	Emergency Squad	County Museum	County Animal Shelter	Soil and Water Conservation*	City Animal Shelter	Parks & Recreation
2018	$77,109	$59,367	$98,917	$58,817	$10,839	$18,424
2017	$84,650	$58,253	$94,127	$57,202	$12,381	$18,097
2016	$106,877	$84,867	$137,374	$84,867	$14,854	$25,889
2015	$106,197	$85,632	$138,029	$85,555	$13,340	$23,863

Source: Faulkner County Treasurer, March 2019 and City of Conway Annual Budget Document, 2020,2019,2018,2017.
*After 2018, VPT revenues will be allocated to the Faulkner County Extension Service.

Comments from the program administrators indicate two different approaches for the use of the VPT and these approaches impact program budgeting in different ways. For several of the county-administered programs, voluntary tax revenue is used for operating expenses. For the county museum, the tax funds 100% of the operating expenses which includes one salaried position. The volatility of the tax naturally makes budgeting for this program challenging. A program administrator stated that the VPT is, "not stable, not predictable, no way to predict [revenues]." This program administrator explained that it is impossible to plan for growth or to hire additional staff. Likewise, another county-administered program which relies almost exclusively on tax proceeds, the emergency squad, uses the tax for essential activities such as rescue equipment, dive training, and water rescue training. There are no operational costs for the emergency squad as the squad members are volunteers. The essential activities, equipment and training, would likely not occur or be purchased if not for the VPT. For programs where the VPTs are not the sole funding source, budgeting is also difficult. For example, a program administrator from one of the city cemeteries funded by the tax, comments that when the tax

revenue is less than expected or when unexpected expenses occur, "We have to prioritize the projects. We can put off some projects and reprioritize when necessary." This individual also stated that the cemetery is trying to build a reserve, but attempting to do so is difficult.

The other approach to using voluntary tax revenues is to use the funds for non-operating expenses. Several city-administered programs use the tax revenues for non-operating projects. The city animal shelter uses the tax for projects such as replacement fencing around the shelter. In this case, budgeting for the program administrator is not difficult and simply involves looking at the VPT fund balance and identifying a special project that fits within the available revenues.

For those programs that rely on the tax for all or part of the operating budget, planning for the future and prioritizing current expenses are the primary challenges. For those programs where the tax is used for non-operating expenses, fewer challenges exist. But the VPT is clearly less stable than some other revenue sources and may perform best on this criteria when its used is confined to funding non-operating expenses.

Sufficiency

For county-administered programs, the county sends a monthly report to the programs funded by the tax. The report shows how much revenue was collected and how much the county programs can spend. For city-administered programs, the county remits the VPT revenue monthly to the city for city-administered programs. In both cases, the voluntary tax is an earmarked tax and cannot be used for other purposes.

One aspect of the VPT that is of particular interest is the difference in importance of the tax to the various programs. The county-administered programs rely primarily on the voluntary tax for operations, although they may receive donations or have other funding sources for non-operating expenses. For example, the county museum receives funds from private donors and grants.

The city operated programs have revenue sources available for operations in addition to the VPT. According to the city finance director, general fund revenues and the Advertising and Promotion tax help fund parks and recreation, general fund revenues and the spay-neuter fund for

animal control, and the cemeteries receive funds from the sale of burial plots. For the city-operated programs, the city animal shelter and parks and recreation, the VPT is a less important part of the total budget for these programs. Even so, a program administrator stated that, "The VPT is an added tax that citizens can pay, it is not a forced tax. It is geared towards services like animal shelters. Police and fire have to be funded, so the VPT is a source for things like [animal] shelters."

All program directors interviewed reported that their programs could use more funding. The desire for more funding is the most acute for those programs using the voluntary tax either solely or partially for operations. An interviewee stated that, "there are services that would not happen without the tax." These program directors identified areas where they could use additional funding. For the county museum, hiring an additional staff person is critical. An official from the city cemetery identified the need for a custodian and grounds maintenance such as the need for a new fence and headstone repair.

Cost Efficiency

The county treasurer indicates that the costs for the county to collect the VPT are no more than that for the general property tax. Specifically, the cost of remitting the VPT to the city is minimal and no more costly than remitting the general property tax. A specific percentage of all taxes collected is remitted to the county tax collector and the county treasurer to reimburse those offices for the costs of administration. The county does not charge an administrative fee to the cities within the county for collecting and remitting the VPT for the programs administered by the cities. Therefore, the tax does not appear to be any more costly to administer than the general property tax.

Accountability

As noted earlier, accountability is vital to good governance. Previous research found potential accountability issues surrounding the use of VPT funds (Hoffman and Howard, 2017). Namely, there were possible issues with controllability and responsibility.

In the case of the VPTs, there are two main approaches used to ensure the funds are being used properly. The first mechanism is external where the state of Arkansas, through the legislative audit committee, requires an independent financial audit of all cities and counties, annually. VPT revenues are reported in this annual audit. The second mechanism is internal. For the county-administered programs, the quorum court controls

the appropriation of funds and can inquire about the expenditures of the programs. When the county-administered programs want to spend funds, they must complete a purchase order. County financial assistants verify that the expenditures are coded properly so that the funds are taken out of the appropriate account and then confirm that there are enough voluntary funds in the account to pay for the item. Additionally, for the county museum, the program administrator must report to the museum commission and follow the county procedures for any expenditures. Similarly, for most of the city-administered programs, the city council can ask about the use of any of the VPT funds. For the animal shelter and parks and recreation, the program administrator must receive an appropriation via an ordinance to spend funds for the special project. This ordinance further states that the requested voluntary funds be transferred to the appropriate operating account from which the funds will be spent and the ordinance confirms that there is sufficient voluntary tax funds for the project. With the city cemetery, the city does not appear to have the same oversight, as the city simply transfers the voluntary funds to the cemetery to be used for the purpose stated in the ordinance. The cemetery board ensures that the funds are being used properly. All the VPTs align with the state legal requirements and county and city expenditures procedures.

Conclusion

The voluntary property tax appears to be a unique revenue source used in Arkansas. By learning more about its use and impact on public programs, other states could authorize its creation by local governments to fund important and essential public services. Because the property tax is common to all 50 states, this unique version of the tax could be an additional source of revenue for local governments in other areas of the country. There are lessons to be learned from this research:

- Enabling legislation at the state level would likely be necessary to allow the levying of the tax at the local level.
- The process of authorization at the local level, whether done by county and city-elected officials or popular vote of the citizenry, will likely be governed by state constitutional language and/or statutes in the various states.
- The VPT appears to be an unstable revenue source. Therefore, it is recommended that voluntary tax revenue be used as supplemental revenue. In this study, the best practice was found with the City of

      Conway Animal Shelter where the revenue is used for special
      projects to enhance operations.
- Due to the instability of the voluntary revenue, budgeting is likely to be more difficult for programs using this revenue source, but much less so for programs using the revenue for special projects.
- Given the literature on cutback management indicating that capital projects are likely targets for cuts during periods of fiscal stress (Bartle, 1996), the VPT could be used as an alternative funding source if earmarked for special projects.
- If the voluntary tax is used for operations, other funding sources should be available.
- For those programs that rely heavily on the VPT as a funding source, the program would likely disappear or be significantly reduced in scope without the VPT.
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Ultimately, the voluntary property tax could be an additional source of revenue in an environment not necessarily conducive to tax increases, especially for programs that are politically popular by citizens.

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