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Evidence-Based Policy and Misinformation: Exploring the Public's Processing of Information

A Dissertation

Presented to the Faculty of the

Department of Public Policy and Administration

West Chester University

West Chester, Pennsylvania

In Partial Fulfillment of the Requirements for the

Degree of

Doctor of Public Administration

By

Amy E. Hann

August 2020

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## Dedication

The dissertation is dedicated to my uncle, Dr. Bruce A. Peterson, who gave me both the inspiration and financial opportunity to pursue and complete this research.

## Acknowledgements

I would like to take this opportunity to recognize and thank those who supported me in various capacities throughout this doctoral dissertation. Firstly, I'd like to thank my chair, Dr. Mark W. Davis for his encouragement and patience during this project. I'd like to also thank the other member of my committee, Dr. Kristen B. Crossney, for her thoughtful comments and recommendations on this dissertation's content. I'd like to recognize my husband, Kyle, for his continued patience and faith throughout the years as I completed the doctoral program. I am also thankful to my parents and family for their unconditional support during this intense academic process.

## Abstract

As the online spread of misinformation increases, policymakers are finding it more difficult to ensure that the public is only exposed to the evidence they share and that their evidence is believed. Policymakers find they must now combat misinformation spread by a variety of entities. This dissertation explored thematic concepts regarding information in existing literature – information as a thing, information as a public good, information as propaganda, information use by elected officials, and information on social media. This dissertation exposed participants to conservative and liberal misinformation and corrective information to determine how they processed policy information. This study explored if the political nature of a resource, a person's political ideology, and political party can influence participants' trust of resources and the believability of policy information. It repeatedly measured participants' policy support levels to identify if exposure to misinformation and corrective information has a significant impact on their support of a policy. The experiments measured these effects regarding climate change, immigration, and transgendered individuals serving in the military policy. This dissertation revealed misinformation and corrective information does not have a significant influence on person's support of a policy. This study also confirmed that the political leaning of a source, political ideology, and political party values, in some cases, can sway if a person trusts a resource or if they believe policy information. This study determined that people are more likely to believe misinformation in conservative resources and conservatives are more likely to not trust corrective information, no matter the source.

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## Chapter 1: Introduction

This dissertation was written during a public health pandemic as the presidential administration attempted to undermine the Executive Branch's infectious disease expert by spreading false rumours (Navarro, 2020). Additionally, there has been no national directive to wear a mask as a preventative measure despite the Centers for Disease Control and Prevention (CDC) recommending the wearing of masks to prevent the spread of COVID-19 as misinformation about the wearing of masks causing carbon monoxide poisoning and oxygen deprivation spread across social media (Centers for Disease Control & Prevention, 2020; Goodman & Carmichael, 2020). The disconnect between the administration and public health officials during the COVID-19 pandemic demonstrates how the spread of misinformation and disinformation can derail public policy. It is not just the act of misinformation spreading online that derails public policy, but more pointedly, it is how the public is exposed to policy misinformation and their processing of this false information that can derail a policy. While it is important to understand how misinformation and disinformation are shared with the public online, it is also important to understand how the public processes the information they are exposed to in an online environment.

This dissertation investigated how exposing Americans to policy misinformation can create disconnection between policymakers and the public. Particularly, this dissertation focused on how misinformation affects the public's acceptance of policy misinformation and corrective information when presented by different policy sources. This research examined the effects of subsequent exposure to misinformation and corrected information, the political leanings of an information source, and a person's political ideology on an individual's likelihood to believe



evidence supporting a policy. Each survey experiment measured these effects on climate change, immigration, and transgendered individuals serving in the military policy. Though the measurement of these effects on public health policy would have been timely, it was purposefully avoided to prevent exposing participants to misinformation that could actually impact their health in a pandemic. Misinformation and disinformation are not tools used only by foreign entities to disrupt American elections (Allyn, 2020). Policy creators and public administrators are now forced to combat misinformation and disinformation spread by a variety of entities – journalists, elected officials, online social media, foreign entities, and the American public. The American public is particularly guilty of participating in misinformation and disinformation campaigns when they interpret information as having meaning due to subjective connection to the data (Bardach & Patashnik, 2016).

It is a truth universally acknowledged within the public administration field that policymakers in charge of crafting a policy must be in want of supportive evidence (Royse, Thyer & Padgett, 2016). Evidence-based policy is a popular term and a frequent practice in public administration because public administrators utilize evidence to infer precise outcomes for their proposed policies (Furner, 2004). When developing an evidence-based approach, evidence must be believed in order for the public to support proposed solutions (Royse, Thyer & Padgett, 2016). Yet, the spread of misinformation and disinformation on social media has made the American public trust particular resources and mistrust others (Keymolen, Prins, and Raab, 2012). There has been little study on understanding how the public's trust of information sources, belief of information, and exposure to information impacts their processing of information. In addition to understanding how evidence impacts support for policies, it is equally important to understand how the relationship between the public and policy information has been

affected by misinformation. It is hoped that this dissertation will give public administrators more insight into how the public processes supportive evidence and this insight will assist with the development of methods to combat the spread of policy misinformation. This research is part of the progression public administrators must undertake to combat policy misinformation and disinformation being shared with the American public by many entities.

## **The Next Chapters**

### ***Chapter 2: Literature Review***

The next chapter of this dissertation will review key terms that are important to the discussion including misinformation, disinformation, propaganda, and public good. First, this chapter will discuss the focus of this study – how the public processes misinformation and corrected policy information and how it relates to the larger context of the effects of misinformation and disinformation on American policy. Then, key terms will be defined and placed into the context of their significance for this dissertation. Next, each theme regarding information, disinformation, and misinformation in public policy will be discussed. The continuous focus across each theme will be how information has been used in the public policy process and how misinformation and disinformation have impacted American public policy. Each theme discussion concludes with an explanation of how the resources relate to this dissertation. The most important thing to note about these definitions is that misinformation and disinformation have the same three important features – the use of deception, the consequences of sharing the deceptive information, and the intent of those sharing the information.

The chapter will then explore five thematic ideas that occur in existing literature about information – information as a thing, information as a public good, information as propaganda, elected officials' use of information, and information diffused on social media. Simply,

information as a thing involves that informative objects do not convey knowledge until the person interpreting the object subjectively connects with the thing (Buckland, 1991). Often public administrators have been concerned that the public is un-informed about a policy because they lack exposure to policy knowledge; yet academics have found the public has formed a particular perspective from being exposed to misinformation and disinformation about policy and are, rather, *misinformed* (Kahne and Bowyer, 2016). Literature on information as a public good explored the consequences of people having different levels of access to information and the impact this disparity has on their decision-making capabilities (Stienstra, Watzke & Birch, 2007). Literature on information as propaganda explores the democratic consequences of citizens being selectively informed by propaganda and the ideological asymmetry of conservatives being more likely to believe disinformation (Freelon et al., 2020).

Writings on information use by elected officials explored if fact-checking was an effective method for teaching citizens how to identify disinformation and if it had long-term consequences for usually dishonest elected officials (Barton, 2019; Agadjanian et al, 2019). Academic literature on the use of social media to spread information argued that trust in a source is one of the most important facets of sharing policy information online (Keymolen, Prins, and Raab, 2012). Additionally, academics advised that while online information is the most rapid manner of sharing information, it also poses a risk because of how easily policy information can be manipulated (June, Hong, and Sung-Min, 2011).

### ***Chapter 3: Research Method***

The third chapter explores the experimental design of the three surveys used to collect data for this experiment. It discusses how the concepts of participants' processing of misinformation and corrective information impacts their policy support, their trust in policy

sources, and their belief of information are measured. This experiment used real political party positions on climate change, immigration, and transgender military service to measure the consequences of misinformation and corrected information on policy support. Determining if the subjective relationship between a citizen and policy information has significant impact on swaying public opinion would be of more value to policymakers than policy information itself. The third chapter discusses how evidence to support policy could be deemed untrustworthy if it is not cohesive with the stakeholder's personal values.

The third chapter also explicitly discusses the convenience sampling strategy used for all three survey experiments and how participants were recruited through the Amazon MTurks platform. It also explains the conditions that were randomly tested in the three policy topic surveys and the methods of analysis. Repeated sign tests were used to determine if exposure to misinformation and disinformation had an impact on participants' policy support. Binomial regression analysis was used to measure if participants' political party membership, their political ideology, or the political leaning of the resource impacted participants' trust of an information source. Ordinal regression analysis was used to determine if party membership, political ideology, or political orientation of a resource affected the level of a participants' belief of the misinformation and corrected information.

#### ***Chapter 4: Findings***

The fourth chapter reviews the results of three survey experiments and reveals if the hypotheses are accurate. It was hypothesized that the political leaning of the misinformation and corrected information sources, the participant's political party membership, and participant political ideology would have an impact on a participant's level of policy support. Specifically, it was hypothesized that if a participant was exposed to misinformation and corrected information

congruent with their political party policy stance and political ideology would have a significant impact on the likelihood an individual will support a policy. However, results indicated that random exposure to misinformation and corrected information of different political narratives, the political leaning of the resources, and the participant's political ideology did not have a huge impact on a participant's policy support as levels remained consistent during the repeated measurements in each survey. This dissertation also hypothesized that individuals were more likely to trust information sources containing misinformation that were congruent with their political ideology and were more likely to trust information sources containing corrected information that were congruent with their political ideology. These hypotheses were proven to be correct, in some cases, as results indicated that political leaning of the resource and the participant's political ideology had an impact on the participant trust of the misinformation and corrected information resources. Individuals are more likely to believe misinformation presented in a policy information source congruent with their political ideology. This dissertation also predicted that participants were more likely to believe corrected information presented in a policy information source that was congruent with their political ideology. The political leaning of the resource was a variable that indicated if the resource was congruent with the participant's identified political ideology. The final results of the experiment found that political ideology and the political nature of the resource could, in some instances, impact the level of belief that participants held in the misinformation and corrected information presented in the survey reading material.

### ***Chapter 5: Discussion***

The final chapter discusses how the results of the statistical analysis could be interpreted and the implications for the public administration field. Results on measuring if political leaning

of the resource, the participant's political party membership, or the participant's political ideology revealed there was little overall change in policy support as participants were exposed to misinformation and corrected information within the survey. This result may indicate that people have preconceived notions about the particular policy topics or absorb policy information using different methods than the online articles used for the survey. Measuring trust of an information source among participants revealed that, in some cases but not all cases, the political leaning of the source – be it a source that contained misinformation or corrective information – and the participant's political ideology can impact if they trusted or did not trust the source. Though the political leaning and participant's political ideology did not always impact if they trusted a source in all conditions, it revealed that liberal participants were more likely to trust a misinformation resource with a liberal leaning and that conservatives were more likely to not trust any resource than liberals. Measurements of participants' belief of information in the misinformation sources and corrective information sources showed that participants exposed to the conservative misinformation were more likely to believe the misinformation than participants who were exposed to the liberal misinformation source.

The final chapter also discusses some of the limitations of this experiment, including that rapid sequential exposure to misinformation and corrected information does not fully replicate real world situations of how citizens are exposed to misinformation online. The chapter concludes with discussion of future avenues of research and the common thematic approach is that policy creators can no longer avoid considering how people process information for there is no purpose in sharing policy information if your audience doesn't trust or believe it due to being gaslit by online misinformation. We live in an information age where all types of information, including deceitful or untrue information, can be accessed by the common citizen and public

administrators' responsibility does not conclude with the publication of policy information.

There is an ethical obligation to ensure that citizens know how to recognize misinformation and where they can find policy information that is believable and trustworthy.

## Chapter 2: Literature Review

### Literature Review

The spread of *fake news* on social media in 2016 has made the American public question what is real, politicians to question the reliability of information sources, and academics to question the digital literacy of the common public (Haigh et al., 2019). *Fake news* is a popular term used interchangeably for misinformation and disinformation (Cooke, 2017). The use of these concepts in public discourse is not new as hoaxes, satire, and propaganda have made use of false information to support or injure people, causes, or institutions for centuries (Cooke, 2017). It is the ability to rapidly spread fake news online that makes the current information crisis in public life different than previous lifetimes. The 2016 election and subsequent presidential administration has brought the concepts of using false or inaccurate information to garner support for particular causes, policy, and people into the mainstream. Some academics have referred to it as the *Trump Phenomenon*, the *Trump Effect*, and the *Trump Carnival* (Swire et al, 2017; Brady, Kelly & Stein, 2017; Gaufman, 2018). Yet, it is misleading to attribute the use of false information in public discourse to a single person or political administration.

Misinformation and disinformation are considered by some as interchangeable, while others have made important distinctions between the two concepts. Both concepts have the same three important features— use of deception, the consequences of sharing the deceptive information, and the intent of those disseminating the information. It is the intention of those that disseminates the deceptive information that is the driving difference between misinformation and disinformation.

This literature review focuses on how the unintentional spread of misinformation and the intentional spread of disinformation has had similar, but distinctive effects on public discourse



(Hinson, 2010). More clarifying definitions of misinformation and disinformation as well as other important terms for this study are defined within the following pages.

Other social science fields, like communication and information science, have explored how information is received and transmits knowledge to the public, that is when information becomes informative, to determine the best methods for sharing information with people to ensure their understanding of the information (Buckland, 1991). Some public administration academics have focused on how social media companies and journalists can combat the spread of false information or how to increase the information literacy of the general public (Batchelor, 2017; Allcott & Gentzkow, 2017). Some have focused on exploring how information is a public good and how to create open access to information in the age of the internet (Stienstra, Watzke & Birch, 2007; Zardo & Collie, 2015). Other academics have focused on how the United States can increase the media literacy of its citizens to combat disinformation and how politicians sharing information on social media can affect public opinion (Barton, 2019; Boudreau, 2014). Several have explored the emotional information behavior of the public and found that people were more likely to seek out information that validates their pre-formed opinions over seeking out correct information (Hart et al., 2009). Another explored how the spread of misinformation and disinformation through artificial intelligence campaigns on social media has impacted the ethics of public policy (Landon-Murray et al., 2019).

Misinformation and disinformation affect all aspects of American public life and the American public life is not solely constructed by policy, but is rather a mixture of communication, information, politics, and many other social constructs. So, it makes sense that the following literature review examined how misinformation and disinformation have affected the American public across many social science fields, including political science, policy studies,

library science, information science, communication, psychology, and journalism as well as public administration and public policy. Overall, five themes emerged and are discussed in the following order: information as a thing; information as a public good; information as propaganda; information and elected officials; and the diffusion of information on social media.

First, this chapter will discuss the focus of this study – how the public processes misinformation and corrected policy information and how it relates to the larger context of the effects of misinformation and disinformation on American policy. Then, key terms will be defined and placed into the context of their significance for this dissertation. Next, each theme regarding information, disinformation, and misinformation in public policy will be discussed. The continuous focus across each theme will be how information has been used in the public policy process and how misinformation and disinformation have impacted American public policy. Each theme discussion concludes with an explanation of how the resources discussed relate to this dissertation.

### **Problem Statement**

This research explored how exposure to misinformation can affect Americans' acceptance of policy information and their acceptance of corrective information when presented by different policy sources. This research examined the effects of misinformation, the political leanings of an information source, and corrected information on an individual's likelihood to believe evidence supporting a particular policy. Each experiment measured these effects on different policy topics including climate change, immigration, and transgendered individuals serving in the military. In the current political and policy environments, policymakers and policy practitioners have been forced to combat misinformation and disinformation spread by a variety of persons – including journalists, elected officials, online social media, foreign entities, and American citizens

themselves. Eugene Bardach and Eric Patashnik's (2016) study found that information only has meaning to the public when they make a subjective connection to the data. They argued this subjective connection to information directly affects how people understand proposed policies to mitigate public problems. Evidence is essential to evidence-based policies because it assists public administrators in inferring accurate outcomes for their proposed solutions to public problems. Evidence should support policy and assist administrators in garnering public support for their proposed solutions, yet the spread of misinformation and disinformation, especially on social media, has made the American public trust particular information resources and mistrust others. There has been little study, as this literature review will show, on understanding how the public processes information, how evidence used to support proposed policies, or how the relationship between the public and policy information is affected by misinformation. It is hoped that the research completed for this dissertation will give public administrators more insight into how the public processes supportive evidence for their policy and develop effective methods to combat the spread of deceptive policy information. The nature of how misinformation and disinformation are used to discredit public policy can be understood by identifying how people connect with deceptive information, the policy consequences of their exposure and sharing of the information, and the intent of those disseminating the deceptive information. This research's attempt to understand how people connect with deceptive information is the first step in a long process public administrators must undertake to combat policy misinformation and disinformation being shared with the American public.

## **Key Terms**

### ***Disinformation***

For their discussion on disinformation within political communications, Freelon and Wells (2020) chose to use the simple definition of disinformation presented within the European Commission report on a multi-dimensional approach to disinformation. Specifically, the author of the report, The European Commission's Directorate-General for Communication Networks, Content, and Technology defined disinformation as "all forms of false, inaccurate, or misleading information designed, presented, and promoted to intentionally cause public harm" (2018, p. 5). This dissertation uses this definition to convey that any information that is false, inaccurate, or incorrect that is intentionally disseminated by those who know the information is not true should be considered disinformation. As Freelon and Wells (2020) noted, this definition unites three important features of disinformation – deception, harmful consequences, and the intent of those circulating the information.

### ***Misinformation***

Misinformation and disinformation are discussed interchangeably in many of the resources discussed within this chapter, while others have highlighted the differences between the two concepts. This dissertation defines misinformation as "information that is incomplete, but it can also be categorized as information that is uncertain, vague, or ambiguous" (Cooke, 2017, p.213). Cooke (2017) also notes that misinformation may still be true if the context of the information is taken into consideration. This dissertation makes the distinction between misinformation and disinformation because it is important to highlight that the experiment performed for this study exposed people to misinformation to mislead participants, yet there was no harmful intent or consequences. Similar to the definition of disinformation, it is important to

note that this definition of misinformation highlights the same three important features – deception, the consequences of sharing the information, and the intent of those propagating the information.

### ***Propaganda***

Of the several resources referenced within this dissertation, none of them clearly defined the term propaganda. The second definition of the term from the Merriam-Webster dictionary is the most applicable to the various discussions of propaganda highlighted throughout this dissertation. Specifically, the chosen definition states that propaganda is “the spreading of ideas, information, or rumor for the purpose of helping or injuring an institution, a cause, or a person” (Merriam-Webster, 2020, para. 2). This definition is also most applicable to this discussion because it does not indicate that information presented in propaganda must be false and this makes propaganda distinct from misinformation and disinformation. Misinformation and disinformation, as discussed later in this chapter, can become propaganda when false information is shared to help or damage a cause, institution, or persons, yet not all propaganda needs to be false.

### ***Information-as-Thing***

Buckland (1991) coined the term information-as-thing to express how information is attributed to objects, including data and documents. This concept is meant to describe when those objects become informative because they have given knowledge or communicated information. Specifically, Buckland described information-as-thing as when documents, data, and other objects “have the quality of imparting knowledge or communicating information, or are instructive” (1991, p.351). For this dissertation, information-as-thing is the process of a

person subjectively relating to an informative object. The object is not informative until the reader or purveyor relates to information expressed by the object on a personal level.

### ***Public Good***

Public good is a material concept that is discussed throughout public administration literature, yet it is important to be specific about what it means when the argument is made that information can be a public good. Public goods are “nonexclusive and nonrivalrous” and “no one can be excluded from their consumption, and one person’s consumption does not diminish that of others” (Nye, 2017, p.552). In the discussion later in the chapter on how information can be a public good, it is meant that institutions and producers of information cannot prevent specific people from accessing the information and a single person’s use of the information does not reduce the ability of others to use the same information.

### **Themes in Existing Literature**

The literature review found five common topics among existing academic literature regarding information and public administration – information as a thing, information as a public good, information as propaganda, information use by elected officials, and diffusion of information to the public on social media. The following section have five thematic parts that each will discuss the existing literature that explores the specific theme and link how this dissertation will also explore the theme and fulfill gaps in knowledge on the theme. It will then conclude with a summary of how these themes are important to public administrators’ use of information and how this dissertation’s experiment will contribute to the study of how misinformation sharing can impact engaging the public’s support of policy.

### ***Information as Thing***

Michael Buckland's 1991 article was originally intended as a topography for information science; however, his concept of information-as-thing is applicable to how public agencies use information as a tangible good for which they develop to support policy. Buckland (1991) found that information can be three things - process, knowledge, and thing. He identified how information can be a *thing* by seeking to identify what things are informative. He also made the important point that information goes beyond communicating knowledge and ideas but is a tangible item that has value (Buckland, 1991). He identified *information-as-thing* to include data, text, documents, objects, and even events. Specifically, these items have value because they impart knowledge or communicate information. However, Buckland (1991) cautioned that the conveyance of information is intangible because it is based on personal, subjective, or conceptual beliefs or values of those interacting with the informative objects. The expression or description of their understanding of the information is when it becomes information-as-thing. Historically, information-as-thing has been studied by those dealing with or creating information systems such as libraries possessing books, computer-based systems that deal with data, or museums cataloging objects (Buckland, 1991). There is also a place for the study of information-as-thing in public administration in relation to how information, in the forms of misinformation and disinformation, can be used as a commodity to encourage stakeholders to support or disavow policy. Buckland (1991) raised the important points that information-as-thing is situational, and the value of informational objects requires consensus. Information-as-thing is useful to policymakers and stakeholders because objects that are viewed as expressing information can be utilized as evidence for proposed evidence-based policy (Buckland, 1991).

Buckland's idea of information as a commodity has given way to a subspecialty of information science called Knowledge Management (KM). Orzano, Scharf, and Crabtree (2008) argued that KM has the ability to influence other professional disciplines outside of information and library sciences. Particularly, their study examined how KM has affected implementation of health care policy. They recognized that health care organizations have better success in implementing intervention protocols due to positive work relationships between actors. Yet also, they believed special attention should be paid to the level of access and amount of information use for building knowledge amongst organizational actors (Orzano, Scharf & Crabtree, 2008). They noted that merely collecting, discussing, and making use of information is not enough to be successful. KM techniques are not intended to merely collect and sort data and documents, but rather seek to support and define ways actors can clearly identify knowledge from their information systems (Orzano, Scharf & Crabtree, 2008). Their study of healthcare KM techniques focused on effective management of processing information and how it enhances learning and decision-making of organizational actors. There was little to no discussion about how those outside the organization, including members of the public, should have access to the information or ensuring that the information used by an organization is accurate, especially when used as evidence for evidence-based policy.

Kahne & Bowyer (2016) explored the political challenges of misinformation spreading amongst constituencies – their hypothesis argued that governing is easier when stakeholders, policymakers, and the public care about the accuracy of what is considered fact. Information considered to be truthful increases policymakers' decision-capabilities and contributes to a productive democracy (Kahne & Bowyer, 2016). In their article, information utilized as evidence allows those engaging with the government to increase their knowledge and understanding of



issues and identify policies that most closely align with their specific values. Kahne and Bowyer (2016) argued that the spread of misinformation makes it harder for members of the public to identify and understand policy and for policymakers' constituents to have faith in the democratic process. Truth and opinion are different in their viewpoint. Kahne and Bowyer (2016) found that the spread of misinformation was not limited to careless members of the public, but also propagated by politicians, political groups, and interest groups. Misinformation was used as evidence to discredit specific policies or government initiatives. The spread of misinformation made information a commodity.

They make a similar point as Buckland, it was the interpretation of the information that made online items valuable to politicians, political action committees, and interest groups. As Kahne and Bowyer (2016) clarify, the interpretation of information presented as evidence in support of a policy, especially in times of political polarization, is based more on a person's perspective rather than how knowledgeable they are on a particular topic. They argued that people are driven to believe information based on two types of motivation – directional motivation and accuracy motivation. Directional motivation leads to people believing information that is interpreted as being the most in alignment with their morals and question the accuracy of information that is interpreted as in opposition to their biases (Kahne & Bowyer, 2016). Kahne and Bowyer (2016) acknowledged that information was a commodity that helped propagate policy support and that misinformation presented a direct challenge to policy adoption. Yet, there was little to no discussion on how agencies could ensure the publicly available information was not misused to create online misinformation and disinformation.

Boudreau and MacKenzie (2013) examined the value of policy information on citizens' opinions about policy initiatives when shared by political parties and lawmakers. Specifically,

they deployed experimental surveys to California citizens during the 2010 election season to determine if the ballot proposition results are really influenced by political party endorsements and detailed policy information. The results helped Boudreau and MacKenzie (2013) determine that citizens do not always fall in line with their party's policy position if persuasive information to support or oppose a policy is provided to them. This survey helped demonstrate that citizens will not ignore policy information presented to them. Increased exposure to policy information through the ballot initiative process can result in their government passing policies that better mirror their personal preferences (Boudreau & MacKenzie, 2013). Boudreau and MacKenzie (2013) argued that citizens who blindly follow their parties' directives on policy positions and vote along party lines have relinquished their responsibility for making policy decisions. As a result, the initiative process does not result in policies that more closely reflect their personal preferences.

Boudreau and MacKenzie's use of a control group, real party positions on ballot initiatives, and actual policy information allowed them to measure real policy implications unlike previous experiments that used fictional candidates or policy initiatives. Their control group also allowed them to measure both how party positions and policy information influence citizens' policy position. Citizens who were already politically knowledgeable and those who were particularly partisan were more likely to consider policy information that conflicted with their political party's position when forming an opinion (Boudreau & MacKenzie, 2013). Their experiment proved that policy information can be used as a commodity to counteract political parties' positions and give citizen's more capacity to participate in the policy process by allowing them to make more informed decisions on ballot initiatives. Their study also reinforced the idea that information in itself is not valuable to policy makers, but rather the subjective

relationship between a citizen and an information item that influences a policy preference was the thing of most value.

Grogan (2014) argued that citizens' discussion of policy should not be used to endorse past decisions, but rather use past information to undertake a calculated process to make future policy decisions. Grogan (2014) claimed that information shared with the public on synthetic biology policy should abstain from discussing the science's uncertainties and providing a risk assessment of the unknown. Rather, since the point of evaluating public opinion and policy deliberation is to determine which policies are enacted, policymakers should be selective on the content and timing of policy information released to the public since these factors are crucial in shaping public opinion (Grogan, 2014). Information on policy is generally released to the public to educate, create consensus, or to create conflict about a specific policy. Grogan maintained that most information shared with the public about synthetic biology has meant to educate the public and has incorrectly focused on the uncertainties of the field. This trend has not helped the public form concrete opinions about available policy options. Grogan (2014) called for information on synthetic biology policy to be more enlightening about the policy's accomplishments as it will give the public a deeper understanding of synthetic biology and help policymakers anticipate future public debates on proposed options. Grogan's argument recognized that the public's subjective relationship to available information was incentive for controlling what information was shared with the public. While misinformation and disinformation are not directly discussed, Grogan's call for controlling what policy information is publicly available related to the idea that information could be misused to convey incorrect policy messaging.

Furner (2004) explored a taxonomy for archivists on how information can be considered evidence and evidence can be considered information. Though his work focuses on archivists'

use of information as a thing, he noted that there is a scholarship strand in public policy that works on linking evidence from scientific research and the policy practices of public administrators. Furner distinguished that public administration scholars have been devoted to developing evidence-based policy processes without giving much consideration to the concept of ‘evidence’ and how information is interpreted as evidence by academics and practitioners. Loosely, evidence is defined as information-as-thing considered or interpreted to draw an inference about some detail of the world (Furner, 2004). Furner (2004) raised several important characteristics of evidence – evidence is relational; it is probabilistic; evidence can be substantive and attributable; it can be form and content; and evidence is attitudinal. Evidence is relational in that it can be information that is inferred from an item or another piece of information. Evidence is probabilistic in that the effectiveness of evidence is measured or weighed – the stronger a conclusion is deemed supported from information, the stronger it is considered as evidence. Evidence is considered to be substantive and attributable to an item – things are evidence in the sense that they contain information or provide conclusions that can be considered evidence (Furner, 2004).

Furner used the example of a document to demonstrate how evidence can be form or content – documents can be considered evidence due to their physical state or due to their content. And the most important characteristic and related to the continued idea that information-as-thing has made information a commodity is that evidence is attitudinal – the interpretation of information as evidence can be based on one’s personal values and beliefs which compose one’s attitude (Furner, 2004). Furner’s exploration of evidence characteristics raised the question of how information used as evidence by policymakers could be questioned as legitimate if it was not cohesive with the stakeholders’ personal values. Again, items presented as evidence to the

public held no value unless there was a similar subjective interpretation by both policy stakeholders and the public.

Hart et al. (2009) found that participants in their study had a preference for agreeable information over unagreeable information. Additionally, they found that when people received information that agreed with their position on an issue, they used this information to validate their feelings on being correct even if the information contrasted with the reality of the situation. Similarly, even if the information presented was more congruent with the reality of the situation, when people were presented with information that disagreed with their position on the issue, people reported feelings of ignorance (Hart et al., 2009). Hart et al (2009) argued people's selective avoiding of information that did not support their attitudes or beliefs is called a *congeniality bias*. People first commit to a specific attitude and then seek out validating information, while avoiding invalidating information, to give them a feeling of being correct (Hart et al., 2009). Hart et al (2009) also identified other reasons people would selectively choose information that gives them a validation feeling including *defense motivation* which is the instinct to defend your beliefs, *accuracy motivation* which is the instinct to feel accurate in your assessment of information, and *impression motivation* which is the instinct to preserve positive relationships with others. These different motivations are the various reasons people tend to only seek out congenial information that validates their feelings on an issue rather than information that confirms they are correct (Hart et al., 2009).

This dissertation utilizes news articles on policy as information-as-thing, like Buckland (1991), and hypothesizes that people recognize the content within these articles as evidence supportive or discouraging of a specific public policy due to their subjective understanding of the article's content, even when the evidence is in fact misinformation. In contrast to Orzano, Scharf, and Crabtree's study,

this dissertation study considered how the public, rather than just internal stakeholders, processes information is significant to understanding successful methods for knowledge sharing and management within a public agency. Similar to Kahne and Bowyer (2016), this study sought to understand a person's perspective of online information, rather than how knowledgeable they are on a particular topic, to gain an insight into how people process misinformation and corrective information. This dissertation study also used real political party positions on policy and actual policy information, like Boudreau and Mackenzie, to measure the implications of misinformation and corrected information. This dissertation also hypothesized that like their study, it's the subjective relationship between a citizen and policy information that is of value to policymakers than policy information itself as this relationship is significant to swaying public opinion. This study measures how controlling what specific policy information is highlighted to the public, like Grogan noted, can affect public support for a policy. This study explored how controlling what information is highlighted to the public can be misused to convey incorrect messaging and measured if corrective efforts had any influence on policy preference. It also surveyed how information used as evidence by the media to support policy could be deemed untrustworthy, like Furner theorized, if it is not cohesive with the stakeholder's personal values by measuring each stakeholder's personal view on the policy issues prior to exposing them to misinformation. This dissertation aimed to demonstrate that the public's subjective relationship to policy information can influence their policy preference even if that information is proven to be incorrect.

### ***Information as a Public Good***

Public goods are often discussed as nonexcludable – as in goods that one cannot exclude others from consuming – and nonrivalous – as in the good's availability does not lessen as others consume it (Nye, 2017). Stienstra, Watzke and Birch (2007) argued that information policies are developed due to different and contrasting motivations – profit versus human rights, market

versus accessibility, competition versus inclusion. They contended that information is a global public good, rather than a nationalistic one, yet they recognized that both public and private groups have a responsibility in developing policies for this public good. Stienstra, Watzke and Birch (2007) focused particularly on how governments, private industry, and disability advocacy groups engage in a three-way partnership to develop frameworks on how to manage and distribute access to information as a public good. They advised that a specific set of tools – regulation, ease of use of products needed to access information, and educating the public on how to access information will help create an effective way to manage relationships between these three partners and allow access to information for all (Stienstra, Watzke & Birch, 2007). Information can be considered a public good because it affects industry, private lives, and policy development around the world and the invention of the internet and smart phones has increased information's availability to the public.

Stienstra, Watzke and Birch (2007) claimed that few would argue that we do not live in a global, information-driven society. Academics have developed a term for the division in society that has allowed some to access information as a public good and created prohibitive barriers for others – the *digital divide*. Research has focused on how people in unindustrialized countries, of lower economic class, rural residents, and those with physical disabilities have been left behind and unable to access information as a public good (Stienstra, Watzke & Birch, 2007). Stienstra, Watzke and Birch (2007) argued that information, especially in context of the digital divide, exists fluidly between these definitions.

Access to information should not be exclusive to one group over others and eliminating the digital divide would help make information more nonexclusive. Information is infinite so one group making use of information does not diminish other groups from making use of the same

information. Their most important point is that government has the potential to determine if particular information is treated as a public good by what policies they choose to enact allowing for general public access to information. Another term for one group having more access to information over others is *information asymmetry*. This term is specifically defined as when one group has more access to precise information than others and this can lead to disparities in power and the asymmetry in access has the potential to injure the lesser informed parties. (Hagen et al., 2013). Hagen et al (2013) also note that information asymmetry is important to consider because many models of predictive behavior assume that all parties have access to the same information and based their rational choices on the same information. If one party has less access to correct information, their behavior may be more unpredictable because they are not using precise information to make rational choices as the more informed parties.

There has been special attention to exploring how health research information should be considered a public good, especially research that has been funded by government agencies. Zardo and Collie (2015) argued that researchers are expected to transparently account for how their research affects community health outcomes and will impact public health policies. They explored to what level the use of public health research has actually influenced public health policy and program development with their study (Zardo & Collie, 2015). They found that agency's internal data and reports were used more frequently than research evidence produced by studies the agencies had sponsored to produce public health policy and programs (Zardo & Collie, 2015). Sponsored research results were used for conceptual purposes, such as designing program instruments. An important conclusion of this study is that intervention would be needed to encourage agencies to make more direct use of research evidence over internal data to create programs that meet the needs of constituencies. Open access to information and its uses in



policymaking will not occur without more direct intervention by public agencies and practitioners.

There has also been a scholarly focus on that public access to information as a good is an attribute of government transparency (Maier & Ottaviani, 2009). Maier and Ottaviani (2009) used the principal-agent theory to explore if there is a benefit to a principal agency, that is a government organization, sharing the organization's contributions to produce a public good. Performance information regarding organizational oversight of public goods has become more publicly available in recent years (Maier & Ottaviani, 2009). Their study focused on two principals, that is organizations, using the same common agent, or representative, and found that information sharing with a principal who was less informed about the agent's involvement but cared more than the other principal about the end outcomes, resulted in increased welfare. However, if information sharing occurred between two principals where the less-informed principal focused less on understanding the agent's involvements, the total welfare decreased. Overall, they found that information sharing increased the overall welfare for a significantly higher percentage of principal-agent situations than situations where information sharing was harmful (Maier & Ottaviani, 2009). If access to information is considered a public good, it can be expected that information sharing will increase public welfare and serve as an incentive for more government entities to increase access to their policy information.

Weiss (2017) recognized that open-access policies to information has allowed more active exposure of little-known policy issues by the media; however, it has also given anyone with an internet connection the ability to spread disinformation and misinformation. He noted that while there has been a rise in fact-checking services and websites, they have little effect in stopping the spread of misinformation (Weiss, 2017). Weiss (2017) argued that allowing for

open access to scientific experts, including those in the civil services, to journalists will help fight the spread of misinformation in the media. This strategy was focused on preventing the creation of misinformation, but there were few recommendations on how to stop the spread of existing false information which is now an obstacle to policy innovation.

Keenan and Dillenburger (2018) explored how the requirement that North American autism policy be crafted by findings from the scientific research method, Applied Behavior Analysis (ABA), has helped reduce the effect of misinformation. In contrast, the United Kingdom does not have a requirement that their autism health policies use ABA research and misinformation has directly affected policy decisions in the UK (Keenan & Dillenburger, 2018). They recognized that while health policy ideally should be evidence-based, policy decisions about public health are often politically motivated and misinformation has had such an effect on policymakers. Academics are now taking the concept of fake news seriously (Keenan & Dillenburger, 2018). They argued that for policy to be more based on scientific, evidence-based information, scientists, practitioners, and policy makers must work more closely together so they are all aware of the relevant facts (Keenan & Dillenburger, 2018). Given a lack of cooperative relationships between these stakeholders in the UK and Europe, parents have taken a more active role in sharing ABA-based practices and taken to legal action to protect their children from policies based on misinformation and political influence (Keenan & Dillenburger, 2018). This study demonstrated that no legal requirement that policies be evidence-based combined with open-access policies of other governments has resulted in citizens of another country using the United States' information public goods as a resource to correct their own public health policies.

The Stienstra, Watzke & Birch (2007) theory that governments can control if policy information is truly a public good by enacting specific policies to allow general public access to

information is important to this study. This dissertation is seeking to prove that that people are more likely to believe misinformation if the information source is congruent to their political leaning and that corrective information is only effective when the source is also congruent with their political leanings. If policy information is truly a public good as Stienstra, Watzke, and Birtch, as well as Maier and Ottavani argued, allowing for access to policy information from resources outside a person's political leaning will be essential to combating the effects of policy misinformation. Otherwise, policy support will be determined by the information made available to the public by media and political parties rather than the government itself. Weiss (2017) determined that fact-checking services were not effective in stopping the spread of misinformation, yet this study's second hypothesis argues that people are likely to believe corrective information if the source is congruent with their political leanings. If it can be proven that political leanings can impact if a strategy to correct misinformation is successful, then perhaps administrators can consider innovative techniques that involve targeting specific political audiences and encouraging them to utilize other accessible policy information to combat the spread of misinformation. This experiment purposefully accepts that policy information is a public good by conveying policy information in resources that would be accessible to all members of the public. The experiment also attempts to demonstrate that the downside of information being a public good is that information used as misinformation, disinformation, and propaganda, as they are in the misinformation resources of the survey, make information a *public bad* as well since it can affect the public's trust of information sources and belief in shared information.

### ***Information as Propaganda***

*Fake news* is a term that has been more commonplace in political dialogue in recent years, however, there has been academic focus on effects of misinformation, disinformation, or negative information on policy. Hinson (2010) explored the impact and use of classified information during the Iran-Contra Affair to bypass official public policy. Hinson (2010) used a Negative Information Action Model to examine how governments actions purposefully kept the public in the dark and argued that these actions are actually illegal. Hinson (2010) argued it is a social norm that information, as a public good, is provided transparently to those with oversight over specific policies. A negative information action can include actions meant to hinder providing that information to those with oversight responsibilities. Hinson (2010) noted there is an unambiguous link between an informed citizen and their choice of elected officials - the public must be informed to hold officials who undertake negative information actions responsible. He concludes that academic scholars and government research on public policy has generally not explored if high ranking US officials participate in negative information actions (Hinson, 2010).

Hochschild and Einstein (2015) explored misinformation and disinformation use in political communications. They focused on political choice of those who shared disinformation, that is they knew the correct information but ignored it, and those who shared misinformation because they did not know they were sharing incorrect information (Hochschild & Einstein, 2015). They found that politicians have little motivation to discontinue sharing misinformation about policy as the ability to motivate the misinformed to vote or donate money is easier than trying to motivate the well informed who generally are not politically active (Hochschild & Einstein, 2015). They noted that motivating the misinformed into political activity is easy

because most people live in social environments where the attitudes of others align with their own choices and prefer to hear information that closely aligns with these preferences (Hochschild & Einstein, 2015). Both of these studies explored how governments could have been motivated by political power rather than being motivated by the public's welfare in their efforts to prevent public access to particular information. Their research indicates that preventing open access to policy information could be detrimental to public welfare and directly supported that idea that information access should be considered a public good.

Haigh et al., (2019) defined of fake news as any item that simulates a news story, and it was not produced from any actual journalistic process. Haigh et al.,'s (2019) concept of fake news closely aligns with the concepts of misinformation and disinformation. Other studies have treated these two concepts as significantly different, but some, like Haigh et al., treat them interchangeably. They note that the United States only started to grasp how easily fake news spreads on social media and how capable it is at influencing millions of people's opinion as propaganda during the 2016 presidential election. However, Haigh et al.'s (2019) study specifically focused on how fake news affected the Ukrainian population and how the Ukrainian society has successfully engaged in the fight against propagandistic fake news. They argued that three strands assisted with Ukraine's ability to fight against fake news propaganda – the country's technological library infrastructure, the Ukrainian institutional effort to educate its citizens on information literacy, and social groups' efforts to fact-check misinformation (Haigh et al., 2019). They argue that fake news is never random, as some believe, but rather has the intent of firing up the public's terrible impulses and prejudices and has been very effective in fracturing Ukrainian society (Haigh et al., 2019).

Haigh et al. (2019) argue that one of the most essential steps to combatting propagandistic fake news is to restore the public's trust in authentic information sources. The Ukrainian library system focused their information and media literacy classes on the individual and individual behavior to successfully engage the public by engaging in dialogue about fake news and disinformation rather than using traditional lecture methods (Haigh et al., 2019). Additionally, the classes used real life examples from many aspects of social life to help citizens more successfully identify fake news and this had more sway with people than theoretical examples (Haigh et al., 2019). They argue that while fake news will never be completely defeated, as propaganda and conspiracy theories have a long history of use to stir up and fracture society long before the existence of social media (Haigh et al., 2019). Yet, libraries and news reports can help rebuild society's trust in authentic information sources by creating a relationship with citizens on an individual basis and using real fake news examples to help citizens learn how to distinct it from actual and reliable information (Haigh et al., 2019).

Freelon et al. (2020) found that recent social scientific research on disinformation and misinformation focused largely on the concepts of disinformation and propaganda. Copious studies found that the reception of disinformation has an asymmetrical spread as research has revealed that conservatives were more likely to believe and share disinformation content than liberals (Freelon et al., 2020). Additionally, Freelon et al. (2020) found that racial identity may also be a factor that influences if one is likely to believe and share disinformation or propaganda content. They found that accounts that presented as a black activist sharing disinformation was the influential predictor of engagement (Freelon et al., 2020). These findings underscored how race should be a relevant concept to the social science study of disinformation and propaganda. Freelon et al.'s (2020) examination of existing social science research on disinformation,

misinformation, and propaganda found that racial and ideological symmetries are prominent phenomena. They found that political messages that used some factual content were the most effective forms of political propaganda as it looked as if the messages aligned with the individual's identity and also used facts to support their position (Freelon et al., 2020). Freelon et al. (2020) also examined disinformation messaging to see if racial impersonation was used by the Russians before, during, and after the 2016 American elections. They found that the ideological and racial asymmetries present in other studies on disinformation and propaganda was prevalent in their own study and it makes race a key factor often exploited by disinformation suppliers (Freelon et al., 2020)..

Russell and Tegelberg (2020) focused on examining methods that have been developed to counter propaganda and misinformation science campaigns. A previous study had largely focused on little accountability requirements in journalism, technology infrastructure that focused on profits over public good, and failure to regulate the technological industry as the cause for the current misinformation crisis against scientific fact (Pickard, 2017). Russell and Tegelberg (2020) found that other studies agreed with Pickard and found that the current online information crisis has been caused by failures of technology, policy, media literacy, and political polarization. One method for dispelling scientific misinformation, they found, is journalists' reliance on nongovernmental organizations and non-profits for scientific content (Russell & Tegelberg, 2020). The diminished budgets of news agencies has created an opportunity for nonprofit groups and other non-government agencies to adapt and learn how to deploy sophisticated media campaigns to communicate directly with their audience, establish the accepted topical facts, and set the agenda for policy discussion (Russell & Tegelberg, 2020).

Schiffirin (2017) recalled that the concept of misinformation being used as propaganda is not new – as this method of political communication was often used by political entities during the Cold War. A significant difference between the misinformation campaigns of the Cold War and the current information crisis is now that authoritarians can use the same technological tools, they use to spread misinformation and propaganda to track their opposition (Schiffirin, 2017). Schiffirin (2017) argues that it is not social media in general that helps spread misinformation, but rather Facebook specifically has become the biggest platform to share politically motivated advertisements. It should be stressed that a study of how many advertisements that contain propagandistic misinformation shared on the platform, who views it, and how often they are re-shared cannot currently be completed because Facebook consistently refused to share its data with researchers (Schiffirin, 2017). The idea of untruthful propaganda being used to misinform the public is not new, but the rate and quantity of how much misinformation can be spread on social media is unparalleled (Schiffirin, 2017). Many social scientists have argued that the successes of democracies rely on an educated public. Understanding how propagandic misinformation is being used to sway policy opinion and the citizens' understanding of the government issues is essential to understanding how citizens are now participating in modern democracy (Schiffirin, 2017). Schiffirin (2017) argues that if we fail to gain insight on how misinformation can be used as propaganda against policy will mean that votes could become despotic and not reflect the majority of the public, but rather government choices will reflect only those minorities who are pandered and swayed by propaganda.

A key point repeatedly made in several of these resources is that the success of a democracy is dependent on the ability of its citizens to be informed about policy (Hinson, 2010; Hochschild & Einstein, 2015; Schiffirin, 2017). This study examines how citizens process policy



misinformation and corrective information presented in media articles to gain insight into how the public processes policy information in non-government resources and thus is a contribution to social science's understanding of how democratic citizens are informed about policy. The study uses both news media articles and non-profit organizational media releases to spread misinformation amongst participants, similar to the technique journalists have been using to find supportive evidence for their articles in Russell and Tegelberg's study (2020). This study also uses resources that are clearly liberal and conservative to spread misinformation and corrective information so that it could be determined if there is an ideological asymmetry in the public's acceptance of misinformation. It does not measure for racial asymmetry yet may confirm the ideological asymmetry findings of Freelon et al.'s (2020) study that conservatives are more likely to believe misinformation content. This study is not intended to determine how citizens can become better informed and avoid misinformation but is intended as a first step in understanding how citizens process policy information. If we can understand how citizens process information, it may help inform any methods developed by public administrators to restore the public's trust in authentic, government information sources and combat the spread of misinformation.

### ***Information and Elected Officials***

Barton (2019) argued that this is the post truth era. For his study, he believed that fake news essentially is a new form of propaganda. Fake news, however, does not necessarily avoid the truth but rather can manipulate components of the truth or completely ignores the truth to sway the public (Barton, 2019). In this post truth era, Barton (2019) notes that propaganda is no longer limited to state-controlled media and is now shared widely and rapidly on different social media platforms. Fake news does not require the use of real people to share a partisan message as

artificial intelligence on social media has allowed particular groups of the public to be targeted by bots (Barton, 2019). Barton (2019) argues that elected officials' endorsement of partisan news networks has encouraged the public to seek out news media that caters both to their emotions as well as their partisan ideology. This has created a public habit of seeking out information that validates one's ideology rather than challenges it. Barton (2019) reasons that this emotional relationship to information in media means that each person develops their own understanding of the information. Barton (2019) also explores that the use of partisan news sources by elected officials marginalizes investigative journalism as it allows elected officials to push their own views and turn the audience against mainstream media. Barton (2019) advises that blacklisting or shutting down partisan and fake news web sites impedes freedom of speech and would encourage only state approved media organizations to legally operate because partisan officials could attempt to blacklist organizations with which they do not agree. The government would be unable to subdue fake news without a large amount of censorship and letting those in power decide what is the truth is an essential reality of the post-truth era if we were to censor anything labeled fake news. Barton (2019) argues that it is more essential that we teach citizens to identify fake news and validate information to create the well-informed public that is essential to democracy rather than try to stamp out fake news.

Agadjanian et al (2019) argued that previous studies on fact-checking have assessed the accuracy of elected officials' public statements, but there has not been much focus on if the reputation of these elected officials is impacted when they've been proven to have shared misinformation. To accurately evaluate if public opinion is affected by fact checking elected officials' statements, Agadjanian et al (2019) conducted three survey experiments to compare negative ratings of fact-checking on elected officials' favorability and their reputation for

accuracy. Their findings found that overall fact-checking of an elected official's accuracy over time has given some officials a reputation of being untruthful (Agadjanian et al., 2019). Yet, there has not been extensive study on the long-term reputation effects of summary fact-checking has had on politicians. Previous studies have proven a person's belief of a particular statement by an official can be changed by fact-checking, but no studies have overwhelmingly proven that summary fact-checking reveals to the public which elected officials have a tendency to promote misinformation (Agadjanian et al., 2019). Agadjanian et al (2019) noted that summary fact checking measures the overall accuracy of an official's body of statements over time, but it does not correct or rectify misinformation represented within the body of statements. Thus, Agadjanian et al (2019) argued that summary fact-checking is not a tool for directly combatting instances of misinformation, but rather helps influence how the public perceives particular elected officials as truth tellers and in turn, holds these officials accountable for spreading misinformation. Agadjanian et al (2019) found that summary fact-checking had a greater effect on combatting misinformation and swaying public opinion than individual fact-checking of singular statements.

Landon-Murray et al. (2019) argued that misinformation and disinformation undermine political accountability and informed policy decisions as well as decreasing the individual citizens' involvement in the democratic process. Landon-Murray et al. (2019) noted that the consequences of each disinformation action, such as when an elected official shares intentionally false information to serve their personal objective, is unknown, and the current information crisis has caused public administrators to question how disinformation affects governance accountability and ethics (Landon-Murray et al., 2019). Disinformation also can mass manipulate public perception of the government and its policies and this causes some members of the public

to live in a distorted reality (Landon-Murray et al., 2019). Given the impact that disinformation and misinformation have had on citizens' ability to participate in democracy and for elected officials to make accurate policy decisions that reflect the public's will, Landon-Murray et al. (2019) does not believe it is even a question if the government should be involved in influencing political disinformation policy. The two most powerful tools elected officials have at their disposal are budgeting and funding – they can choose to fund programs that aim to disrupt the spread of disinformation and misinformation (Landon-Murray et al., 2019). Congress, as a body, has the power to create legislation that could prohibit their own government from spreading disinformation or participating in covert misinformation actions (Landon-Murray et al., 2019). This type of legislative action would require the cooperation and endorsement of the President for it to be effective at combatting disinformation, Landon-Murray et al. (2019) notes.

Public administration literature has long emphasized that the uninformed citizen cannot participate in democratic decision making (Kuklinski et al., 2000). However, misinformation does not necessarily make the American public uninformed, Kuklinski et al. (2000) argues, but rather the American public confidently believes wrong information. Therefore, the spread of misinformation and disinformation has created an environment where citizens are confidently shaping their opinion about policy using incorrect or false information and this threatens the welfare of American democracy (Kuklinski et al., 2000). Kuklinski et al. (2000) argues that we can avoid democratic bankruptcy by ensuring that the public has easy access to information directly related to policy debates taking place between elected officials and that this information should be factual. Citizens must also be able to intake and apply factual information while also knowing how to recognize disinformation and misinformation when forming their policy preferences (Kuklinski et al., 2000). Simply, Kuklinski et al. (2000) argues citizens can only

have easy access to factual information if elected officials circulate this information. The reality of the current situation is that elected officials choose to participate in spreading any information that supports their preferred policy position, even if it is incorrect or false (Kuklinski et al., 2000). Thus, the American public is often misinformed rather than uninformed, and this distinction is important, Kuklinski et al. (2000), argues if the government is going to combat misinformation and disinformation. Kuklinski et al. (2000) emphasized that it is important the concepts between being misinformed and uninformed are precise and accurate because the government would want the public to not only have factual beliefs about policy but also accurate beliefs about policy. Uninformed people do not have accurate beliefs about policy because there is an absence of any belief on policy due to their lacking information. Contrastly, the misinformed hold inaccurate beliefs about policy due to their confidence in incorrect information. Kuklinski et al. (2000) notes that is important to understand that people do not passively receive information, rather they are always seeking to make inferences from information that is consistent with their beliefs and elected officials seek to share information congruent with particular groups' beliefs over factual information.

If we are to teach citizens how to identify disinformation and rely on valid, factual information as a combative method to fight back misinformation as Barton suggests, public administrators need to understand how the public processes and relates to information. This study aimed to develop some insight into how the public understands and accepts policy information presented in different resources, some congruent to their personal belief and others that do not reinforce their ideology. This study uses single-instance fact checking, rather than summary fact-checking as Agadjanian et al (2019) recommends, so this study is unlikely to influence how the public perceives specific elected officials. Yet, this study hopes to measure if

single-instance fact-checking has an impact on the public's perception of specific and real policies. It may help public administrators to understand which approach is most effective or determine if using single-instance fact checking in tandem with summary fact checking would be most effective for combatting disinformation and misinformation. Additionally, since Landon-Murray et al. (2019) argues that misinformation and disinformation have helped undermine the political accountability of elected officials and their policy decisions, this survey's measure of how effective fact-checking is to combat misinformation may help determine if efforts to fact-check elected officials will make them more accountable in the age of misinformation. Finally, the Kuklinski et al.'s (2000) emphasis between the misinformed and uninformed is important because this study is only measuring misinformed participants' belief in misinformation and corrected information as it measures their opinion on policy prior to exposure to policy misinformation and corrective information. It is presumed that they have some belief, be it inaccurate or accurate, about policy rather than no beliefs at all.

### ***Diffusion of Information on Social Media***

Flew (2015) argued that there is a public perception that implementing social media is easy because administrators will find some workaround older rules and procedures that did not anticipate the agency ever having a social media platform. Flew (2015) noted that any social media policy published by an agency must adhere to both formal and informal institutions. Flew (2015) identified government agencies, corporations, trade unions, and educational facilities as formal institutions. Informal institutions would be community and social groups that define norms of behaviors and belief systems (Flew, 2015). First, it must obey the agency's guidelines, policy practices, and complement the mission. Second, when implemented, it must adhere to the social norms, cultural traditions, and belief systems of the public it serves. A successful social

media platform will adhere to all these in order to influence how the public perceives the agency's online efforts. Flew's (2015) arguments focused on the frameworks agencies must operate in – the public and private, the formal and informal, the national and supranational governance, and the large-scale and small scale – in order to appeal to the public.

Keymolen, Prins, and Raab (2012) argued that trust is one of the most important elements of any agency's relationship with the public, even in the information age. If the public does not perceive the online information provided by an agency as accurate, reliable, and trustworthy, then there is no point at all for an agency to engage in social media or other forms of online content. Keymolen, Prins, and Raab (2012) argued that how the public views the trustworthiness of an agency's online resources impacts their intentions of actually using it. Online technology has also made government agencies vulnerable to and dependent on technology because people are submitting, sometimes involuntary, to the effects of governance through online resources (Keymolen, Prins & Raab, 2012). Trust between the agency and the public must be reinforced through clear guidelines and principles. Keymolen, Prins, and Raab spoke about the use of technology and online resources in general, but they do make an important point about the significance of trust in the relationship between agencies using online sources and the public. It is especially valid that sometimes this relationship is not voluntary, as the public may encounter the agency's sources on accident and cannot assume the sources are trustworthy if they do not have a positive perception of the agency.

Auer (2011) noted that social media has largely been used to influence the public's comments, views, and support of policy by appealing to specific value sets. While Twitter, Facebook, and other social media platforms were created so users could share content, they were never actually intended as a mechanism for agencies to circulate policy information (Auer,

2011). Social media's ability to bring together media, politicians, officials, and the public challenges the traditional idea of who should be directly participating in creating and implementing policy. Similar to Berry and Berry's (2014) argument that diffusion of policy occurs when different social actors collaborate and communicate through different channels, Auer (2011) argued that social media has a role in the different stages of the policy process. He maintained that social media can be used by official actors to collect intelligence about other policies, promote policy alternatives, officiate what is formally shared by the agency, and evaluate existing policy decisions (Auer, 2011). Auer's point that social media was never intended as a mechanism for sharing policy information and how agencies use social media is trying to catch up with information dissemination is important. It reveals that information sharing on social media was undertaken before agencies were aware of the possible consequences of utilizing such a mechanism, including the spread of misinformation and disinformation.

Bertot, Jaeger, and Hansen (2012) explored the advantages of social media use and obstacles created by existing social media framework within federal agencies. They recognized that social media took control over content creation from public officials and policy professionals and gave it to the general public (Bertot, Jaeger & Hansen, 2012). They identified increased dialogue with the public, joint policy development and design between officials and the public, and crowdsourcing solutions as advantages of agencies making use of social media (Bertot, Jaeger & Hansen, 2012). Of course, successful use of social media requires that both officials and the public have access to the appropriate technology and have the information literacy to understand how to access available policy information and content. Bertot, Jaeger, and Hansen (2012) argued that existing social media frameworks could fail to secure private information appropriately and ensure that openly accessible information is accurate. Bertot,



Jaeger, and Hansen reinforce Auer's earlier point that while social media has successfully created a collaborative community between the government and public, little thought has been given to how the policy process is now susceptible to misinformation and disinformation campaigns from outside sources.

Quinlan, Shephard and Paterson (2015) argued that social media is assumed to enhance public dialogue about policy. They focused on social media use during referendum votes, which are largely considered a policy-making process that most directly involves and reflects the public's wishes. However, they argued that referendums often reveal that voters lack knowledge about the proposed policy and as a result, may not actually reflect the community's consensus (Quinlan, Shephard & Paterson, 2015). Social media campaigns to disseminate policy information about referendums have been more detrimental than helpful due to the spread of misinformation and a failure to properly inform voters about accurate policy information (Quinlan, Shephard & Paterson, 2015). Similarly, June, Hong, and Sung-Min (2011) noted that using social media tools as mechanisms for sharing policy information has considerable risk given the ability for information to be contorted and for misinformation to spread swiftly. Despite this risk, social media has become important to the policy-making process because it instantly broadens who can participate in policy deliberation and makes it easier to share important policy information (June, Hong & Sung-Min, 2011). They predicted social media will influence the policy-making process by making issue agenda setting more about individual concerns as citizens can now more directly communicate with and pressure policymakers (June, Hong & Sung-Min, 2011). Both articles demonstrate how social media has grown as a mechanism for both disseminating policy information as well as collaborating with citizens to

create proposed policies. Little reflection has been given to if citizens collaborating with agencies are being provided the incorrect information.

This study makes use of both formal and informal media - similar to Flew's examination of public agencies' social media policies. The language used within the policy explainers contains a mixture of formal or informal language so that it appeals to the social norms or belief systems of a variety of possible participants. While Flew's theory regarding social media policy is not being deployed specifically for this experiment, the design did consider that the survey tool should appeal to a range of value systems. Keymolen, Prins, and Raab (2012) argued that trust is one of the most important aspects of a policy because the public will not believe an agency's information if they do not trust the agency. This experiment measured the trustworthiness of each public policy by measuring each participant's belief in the policy before and after they're exposed to misinformation and after the misinformation is revealed. Similar to Auer's argument that social media has been used to sway the public's views of policy by appealing to specific value sets, this experiment used different media articles to appeal to different value sets and see if it sways their view on policy. Unlike Quinlan, Shepherd, and Paterson (2015), this experiment does not hypothesize that people do not lack knowledge about proposed policies, but rather are more likely to believe policy information congruent to their values. This experiment makes use of online resources to share policy information because it is easier to contort and share misinformation, similar to June, Hong, and Sung-Min's (2011) theory that using online media tools carries the risk of how easily policy information can be manipulated.

## **Summary**

In summary, existing literature has revealed that information is important to public administrators because they use information as evidence to support their evidence-based policy

with the expectation that the public accepts this evidence. Yet, the spread of misinformation and disinformation have proven that the public more likely to believe deceptive information released by forces working against their policies and policymakers need to understand how the public processes and determines if they believe information. Social media is the tool public agencies have been eager to use in spreading evidence to support their policy. However, existing social media strategies for sharing this information often does not consider how their shared information could be manipulated by outside actors to counter their proposed policies. There also has been little consideration of how to bridge the digital divide that prevents certain groups from easily accessing available information and creates inequitable information access while many academics have argued that open access to policy information is a public good. There has been an embracing of sharing information with the public as a mechanism for government transparency, but not many have considered the consequences of outside sources altering shared information for their own purposes. There has been a call for using social media to diffuse policy information with little consideration of how the subjective understanding of information leads citizens to be easily influenced. Recent elections and online misinformation campaigns have made some question the digital literacy of the average citizen. Disinformation has been used as propaganda to support or disavow public policy.

This dissertation data supports that that the digital literacy of citizens is an important part of the policy process, yet since so many stakeholders are responsible for the creation, implementation, and oversight of policy information – it is important to also consider how people seek out policy information and process the information they find. This dissertation tests how people process policy information by first measuring if the exposure to misinformation and corrective information impacts their level of policy support, their trust of different resources that

may or may not be congruent with their political party, and their level of belief of misinformation and corrective information. In the age of sharing information on social media quickly and widely, it may not be the case that citizens are uninformed about public policy, but rather are misinformed. The experiment specifically measures if citizens being misinformed about policy impacts their policy support by repeatedly measuring their level of policy support before being exposed to any information, after being exposed to misinformation, and after being informed they were misinformed by exposing them to corrective information.

As Hart et al (2009) found, people are more likely to seek out information that validates their feelings rather than confirms the truth. This experiment incorporates this argument by randomly exposing citizens to different misinformation sources and corrective information sources that may agree or may not agree with their political ideology. You cannot convince a citizen to become digitally literate to avoid misinformation, if you cannot first understand how they process and relate to information, be it false or true information. The experiment emphasized the importance of understanding how people process true and false information by exposing them to both types of information and then measuring their policy support, trust of the source and their belief of the information. The relationship between the citizen and policy information is not objective, and this research sought to understand if the political leanings of an information source can affect the likelihood a person is to believe the presented information and if that information affects their support of a policy to prove that the relationship is more likely to be subjective. The measurement of participants' policy support, trust of the information source, and belief of the presented information in the different resources is intended to confirm that people process policy information subjectively and their support of policy can be manipulated by the subjective presentation of policy information. Public administrators have embraced the idea

of open access to information because some believe information is a public good, open access to information allows for governmental transparency, and it's long believed that if citizens are informed about policy, they will be persuaded to support it. However, online policy misinformation and disinformation have become a byproduct of open access to policy information. This experiment utilizes policy misinformation and corrective information to demonstrate that sharing policy information openly online comes with the risk that the information will be manipulated and contribute to the public's mistrust of government resources and disbelief of corrective information after believing other misinformation they have seen online. If information is considered a public good, and as such access to it should be unhindered and its use by multiple parties infinite, this experiment is seeking to determine how citizens relate to online policy information so that public administrators can strategize on how to dispel misinformation and disinformation by appealing to citizens' subjective understanding of policy information.

The next chapter will discuss how survey experiments were undertaken to answer this research question – how citizens relate to information – and to prove the hypothesis that individuals are more likely to believe misinformation and corrective information presented if a policy source that is congruent with their political leaning. The next chapter will have two primary sections – procedures for how the experiment was performed and what was data collected and how it was obtained. It will explore the different research variables used, how the data collected directly represents these variables, and the methods of analysis used to establish the experiment's findings. The next chapter will also discuss the assumptions made during the experiment and how the study contributes to understanding the larger dialogue of how citizens seek out and understand policy information.

## Chapter 3: Research Method

### Research Question

This dissertation explored how misinformation and disinformation have affected the American public's understanding of policy information and their trust in different policy information resources. In the current political and policy environments, policymakers and policy practitioners have been forced to combat misinformation and disinformation spread by a variety of persons – including journalists, online social media, elected officials, foreign entities, and American citizens. This research examined the effects of misinformation, the political leanings of an information source, and the effects of corrected information on an individual's likelihood to believe evidence supporting a particular policy. Each experiment measured these effects on different policies issues including climate change, immigration, and transgendered individuals serving in the military. This dissertation's findings revealed how the public subjectively processes policy information resources, how misinformation and disinformation has influenced proposed policies, and if the government can successfully counter misinformation and disinformation with evidence-based information.

More detailed definitions for misinformation and disinformation were embedded in the previous chapter, however, it is important to again highlight what exactly is meant by disinformation and misinformation in this experiment. This dissertation defines disinformation as “all forms of false, inaccurate, or misleading information designed, presented, and promoted to intentionally cause public harm” (Directorate-General for Communication Networks, Content and Technology, 2018, p.5). This dissertation used this definition to convey that any information that is false, inaccurate, or incorrect that is intentionally circulated by those who know the

information is not true should be considered disinformation. Misinformation is defined as “information that is incomplete, but it can also be categorized as information that is uncertain, vague, or ambiguous” (Cooke, 2017, p.213). These definitions highlight three important features of disinformation and misinformation – the information is deceptive, the distribution of the information is likely to have harmful consequences, and the intent of those disseminating the information determines if it is misinformation or disinformation.

Bardach and Patashnik (2016) argued that information only has meaning to the public when they make a subjective connection to the material. This experiment hypothesized that this subjective connection to information directly affects how people understand proposed policies. Information is often used as evidence to support evidence-based policies because it supports the expected outcomes for proposed solutions to public problems. Evidence should also support policy and support administrators in garnering public backing for their proposed solutions, yet the spread of misinformation and disinformation online has made the public trust particular resources and mistrust others. Thorson’s (2016) study used a deceptive element to measure if misinformation still had an impact on political attitudes after misinformation had been discredited by corrective information. This experiment similarly used a deceptive element to determine if misinformation and corrective information affected an individual’s support of a specific policy. This study focused on understanding how the public processes evidence used to support proposed policies and how the subjective relationship between the public and policy information is affected by misinformation.

This chapter will first discuss the specific research questions that this experiment is seeking to answer. Then, the hypotheses will be clearly identified. Next, the concepts that this experiment measured will be explained. Measurements that were designed to measure the

defined concepts will be identified and then the detailed design for the three experiments will be highlighted. The sampling strategy and the degree to which the measurements accurately represent reality, the validity, will be reviewed. Then, the expected consistency and reliability of each survey will be assessed. And finally, the chapter will conclude with a discussion on the chosen methods of analysis to determine the findings and their appropriateness will be discussed in this chapter.

### **Experimental Design**

The specific research questions this experiment asked were:

- Does exposure to misinformation and corrected information affect the likelihood an individual will support a policy?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing corrected information affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will believe the presented information?
- Does the political leaning of a policy information source containing corrective information affect the likelihood an individual will believe the presented information?

In brief, three experiments were deployed, and each experiment focused on participants' attitudinal position on a different policy. The first experiment focused on participants' attitudinal position on immigration, the second experiment focused on participants' attitudinal position on climate change policy, and the third experiment focused on participants' attitudinal position on



policies regarding transgender individuals serving in the military. In each experiment, a pre-test of each participant's attitudinal position on the chosen policy topic was measured. Participants were then randomly presented with either a pro-policy or anti-policy explainer that deliberately contains incorrect policy information. Then the participant's trust of the presented information and their attitudinal position on the policy topic were again measured. Each participant was then randomly exposed to various conditions, including exposure to corrected information from a source that aligned with their values or exposure to corrected information from an opposing policy position resource. Then, participants' belief of the corrected information source was measured. A post-test attitudinal position on the policy topic was then conducted to determine the impact of the discredited misinformation and corrected policy information on participants' attitudinal positions.

These three experiments sought to prove the following major hypotheses:

- Individuals' exposure to misinformation and corrected policy information is likely to affect their support of policy.
- Individuals are more likely to trust information sources containing misinformation that are congruent with their political ideology.
- Individuals are more likely to trust information sources containing corrected information congruent with their political ideology.
- Individuals are more likely to believe misinformation presented in a policy information source congruent with their political ideology.
- Individuals are more likely to believe corrected information presented in a policy information source that is congruent with their political ideology.

## *Concepts*

The public can both be misinformed and disinformed at the same time and encounter both types of information online within the same resource. Misinformation is information presented as factual, and often believed to be true by those diffusing the information, that is determined to be untrue. Disinformation is information presented as factual that is known to be false by those diffusing the information (Thorson, 2016). In practice, it is difficult to clearly separate a population into distinct groups of *misinformed* and *disinformed*. As such, this mixed methods study reviewed what can be known about how purposeful exposure to misinformation and disinformation is subjectively understood on the individual level by examining the overall concept of how people process policy information. To examine this overall notion, a few different concepts were explored within the experiment including the trust of an information source, the belief of policy information, and the impact of misinformation and corrected information on opinion of policy.

**Processing of Misinformation and Disinformation.** For this experimental research design, it is important to recall the most significant similarity between misinformation and disinformation – it is information that is incorrect. The spread of disinformation often is purposeful, and misinformation may be spread in error. As Thorson (2016) noted, false information, whether spread on purpose or mistakenly, can lead to false beliefs and create vexing issues for policymakers. For this experiment, the information presented in the first policy information source can be treated as both misinformation and disinformation, because the source was manipulated on purpose to contain false information, but it was not shared with the intent to permanently deceive participants. This study did not attempt to make a distinction between the misinformed and the disinformed, but rather create an information source that could be

considered disinformation on first glance at an individual level, and becomes misinformation when the participant is told the first resource contained false information in the second policy resource. This experiment hoped to understand how incorrect and corrected information are processed on an individual level by asking for several different responses. First, the experiment pre-tested each participant's opinion on a policy, and then post-tested their same opinion after they were exposed to misinformation and again post-tested after they were exposed to corrective information to determine if their processing of deceptive information affected their attitudinal position on the policy. This concept was also measured by asking each participant if they trusted the policy resource itself and if they believed the policy information presented within the resource after reading first the misinformation policy explainer and then the corrective policy explainer. Calculating each participant's trust in different policy resources that may be congruent or incompatible with their values is another means to measure their processing of misinformation and disinformation. Finally, this experiment asked their level of belief in both the policy resource that contained misinformation and the policy resource that expressed corrective information to measure how people process misinformation and disinformation.

**Trust in Policy Sources.** Buckland's (1991) theory argued that items such as documents, objects, and events did not tangibly convey knowledge or become an information-as-thing until people interacting with the object made a subjective connection to the knowledge expressed by the object. Swire, Berinsky, Lewandowsky, and Ecker (2017) support this concept of subjectively understanding information with their findings that people are likely to be more critical of information sources that diverge from their personal attitudes. For example, conservative voters are more likely to believe a supportive statement about a proposed policy from a conservative publication over factual evidence that does not support the policy from a

liberal publication. To study how members of the public evaluate information sources that are both supportive and diverge from their personal attitudes, this experiment measured if people trusted sources that contained purposefully created misinformation and then again measured if they also trusted the information source that revealed the previous source contained misinformation and presented corrective information to the participant. Participants were also asked to self-identify on a seven-point scale as liberal or conservative. There was a conservative and liberal version of each policy resource to challenge if people are likely to trust only information that seems congruent with their personal values.

**Belief of Misinformation and Corrective Information.** As noted, the public are more likely to accept information in line with their personal beliefs and will not seek out corrected information unless the information is counter to their belief systems. Fridkin, Kenney, and Wintersieck (2015) found that fact-checkers have been presented as a solution to counter the effect of misinformation and disinformation. However, given that the public can seek out information based on their political and personal preferences, it is not guaranteed that members of the public will seek out more information to confirm what a resource claims is indeed true. This study again did not attempt to make a distinction between the misinformed and the disinformed on an individual level, but rather attempted to understand how corrected information was processed on an individual level after they had been exposed to incorrect information. This concept was measured by calculating each participant's trust in a policy resource that indicates previously presented information was incorrect and subsequently presents corrected information to the participant on a specific policy topic.

**Impact of Policy Information on Participant's Support of Policy.** Hameleers and van der Meer (2019) found that previous studies on the impact of *fact-checkers* failed to consider that the

orientation of a fact-checking resource may influence a person's willingness to accept the corrective information. A subjective relationship to corrective information is likely to be similar to a person's subjective relationship to incorrect information – that is, the nature of the fact-checking source is likely to influence if a person believes the facts. This experiment explored if people's support of a policy is affected by misinformation and corrected information by repeatedly testing their support of a specific policy. To measure this concept, each participant's attitudinal position on a specific policy was taken as a pre-test prior to being exposed to a policy resource that contained misinformation. Each participant was again asked to report how much they support the same policy after being exposed to the misinformative policy resource and again as a post-test after they were exposed to the policy resource with corrective information. The pre-test and two post-test measurements of a participant's attitudinal position on a policy were used to measure if there was a positive, negative, or no effect from misinformation and disinformation on a person's support of policy.

### *Measurements*

Each of the concepts discussed in the previous section were measured using the following variables. Specific details on each measurement including what information was asked of participants and how it was measured are included in the following discussion.

**Trust of Government.** Participants were asked if they generally trusted that the government used public policy for the good of the public on a five-point scale ranging from strongly disagree to strongly agree. This measurement was used to determine if there was an inherent trust or distrust of the government amongst the sampled population.

**Trust of Public Agencies.** Participants were asked if they agreed that public agencies are telling the truth when they release publicly available policy information. Their responses were

measured on a five-point scale from strongly disagree to strongly agree. This measurement was used to measure if there was an inherent trust or distrust of policy information released by public agencies.

**Trust of Political Groups.** Participants were asked if they agreed if political action groups were telling the truth when they share information about government policy. Responses were measured on a five-point scale from strongly disagree to strongly agree. This measurement was used to measure if there was an inherent trust or distrust of policy information shared by political action groups.

**Party Identification.** Participants were asked to self-identify their political party membership. They could choose from Republican, Democrat, Independent, another party, and no preference. This measurement was used to determine if there is an asymmetrical trend amongst Republicans to believe misinformation as others have found conservatives more likely to believe misinformation over liberals (Freelon et al., 2020).

**Ideology.** Participants were asked to self-identify their political ideology on a seven-point scale ranging from extremely liberal to extremely conservative. This measurement was also used to determine if there is information asymmetry, between liberals and conservatives, on who is more likely to believe misinformation and disinformation.

**Social Media Use.** Participants were asked to ascertain if they had or had not shared information about public policy on social media about a policy in the past year. This measurement revealed those active users of social media and help determine if they are more susceptible to trusting misinformation or more capable of identifying it.

**Pre-Test Policy Attitude.** Participants were asked to rate their attitude of agreement with a specific policy on a scale on 0-100 with 0 representing total disagreement and 100 representing

complete agreement. They were asked to rate their policy attitude prior to reading any policy explainer to get a base attitudinal rating. This measurement along with two similar post-tests after the participant is exposed to misinformation and corrective information helped measure the concept of how people process policy information and its impact on their support of the policy.

**Belief of Misinformation Policy Information.** Participants were asked to indicate how much they believed the policy information, the misinformation they do not yet know is false, presented in the first explainer on a five-point scale from strongly believing the information to strongly not believing it. This measurement, along with the measurement that identified if the resource they viewed was liberal or conservative, determined if the public is more likely to accept information in line with their personal beliefs.

**Trust of Misinformation Policy Source.** Participants were asked to indicate if they found the first policy explainer, that contained misinformation, was trustworthy or not trustworthy. This measurement, along with the measurement that identified if the resource they viewed was liberal or conservative, determined if the public is more likely to trust information sources in line with their personal values.

**Post Misinformation Test of Policy Attitude.** Participants were asked to rate their attitude of agreement with a specific policy on a scale on 0-100 with 0 representing total disagreement and 100 representing complete agreement. They were asked to rate their policy attitude after reading the first policy explainer that contained misinformation to calculate a change in policy support after being exposed to misinformation. This measurement along with the pre-test attitudinal test and similar post-test after the participant is exposed to corrective information helped measure the concept of how people process policy information and its impact on their support of the policy.

**Belief of Corrective Policy Information.** Participants were asked to indicate how much they believed the policy information, the corrective information that reveals they were previously exposed to misinformation, expounded in the second explainer on a five-point scale from strongly believing the information to strongly not believing it. This measurement, along with the measurement that identified if the second resource they viewed was liberal or conservative, determined if the public is more likely to accept corrective information in line with their personal beliefs.

**Trust of Corrective Policy Source.** Participants were asked to indicate if they found the second policy explainer, that contained corrective information, was trustworthy or not trustworthy. This measurement, along with the measurement that identified if the second resource they viewed was liberal or conservative, determined if the public is more likely to trust corrective information sources in line with their personal values.

**Post Corrective Information Test of Policy Attitude.** Participants were asked to rate their attitude of agreement with a specific policy a third time on a scale on 0-100 with 0 representing total disagreement and 100 representing complete agreement. They were asked to rate their policy attitude after reading the second policy explainer that revealed the first explainer had misinformation to calculate a change in policy support after being exposed to misinformation and subsequently corrective information. This measurement along with the pre-test attitudinal test and similar post-test after the participant was exposed to misinformation helped measure the concept of how people process policy information and its impact on their support of the policy.

**Additional Measurements.** Each participant's age, level of education, gender, and financial class were also recorded in order to measure if there is any information asymmetry along these demographics. Additionally, each policy explainer was labeled as conservative and liberal to



measure if people believe or trust resources most congruent with their values over those that are incongruent with their values. The label for the policy explainer was not revealed to participants and only viewable to the primary investigator.

### *Design*

There were three survey experiments with the same design conducted in total for this dissertation. Each used the Amazon Mechanical Turks (AMT) platform to recruit and connect participants to the survey. The three experiments were run serially, and each survey took a participant no longer than 30-45 minutes to complete. Each survey experiment was available on the AMT platform until 100 participants had taken the survey. Each participant was provided a specific code randomly generated at the end of the survey to input into the AMT platform as proof of finishing the survey and to make them eligible for compensation. The first survey focused on participants' attitudinal position on climate change. The second experiment focused on participants' attitudinal position on immigration policy and the third survey focused on participants' attitudinal position on transgender persons serving in the military.

**Consent.** Each participant was first presented with a consent page that advised that it was a survey on understanding the public's processing and trust in policy information. The consent form advised that they would read two policy explainers and then take a short survey. The form also advised them that there was no risk or discomfort beyond that of everyday life and the only personal benefit they would receive is compensation for taking the survey. The consent form also advised them that no personal identifying information would be collected or recorded, and their responses would be kept in a secure manner by the primary investigator and her academic adviser. Participants had to agree with the information outlined on the consent page before they were able to proceed to the survey itself.

The consent form did not seek full and informed consent from participants because the survey was exposing participants to misinformation purposefully and then correcting the misinformation to measure their subjective processing of policy information. It was important that the exposure to misinformation was not revealed at the beginning of the survey during the consent process. The IRB approved the requested waiver for normal informed consent procedures because the research could not be practically carried out without the deception element to the survey. As the use of deception in this research presented minimal risk to participants since corrected information was highlighted after the deception was revealed and a debriefing form was included at the end of the survey, the waiver was granted.

**Policy Behaviors, Beliefs, and Political Identity.** After consenting to participate in the survey and unaware of the deception element, participants were asked to report on if they generally trusted that the government used policy for the public good. Then, they were asked to agree or disagree if they believed public agencies making statements about policy were generally telling the truth and if they believed political action groups were telling the truth when they shared policy information. Participants' level of interest in government policy was also recorded. Then, they were asked to self-identify their political party and if they were generally conservative or liberal. Finally, they were asked how often they used the internet to gather policy information, if they had used Facebook or Twitter to share policy information in the past year, and if they had contacted a non-elected federal government official about policy in the past year. These questions were used to gather understanding on how much general interest participants had in public policy, if they were active on sharing policy information on social media, and if they had had more general trust in the government, public agencies, or political action groups.

**Policy Attitude Pre-Test.** Participants were then asked how much they agreed with a comment about policy. For the first survey, they were asked to measure how much they agreed that climate change is real and that the government should enact policy to counteract the effects of climate change. For the second survey, participants were asked to measure how much they agreed that the government should accept immigrants and enact policy that allows them to legally come to the United States. The participants in the third survey were asked to report how much they agreed that the government should enact a policy that allows transgender people to actively serve in the military.

**Misinformation Policy Reader and Attention Check.** Participants were then randomly presented with either a conservative or liberal policy explainer that contained incorrect policy information. Both versions of the first policy explainer contained the same incorrect information. Participants in the climate change survey were told that the Trump administration would ban windmills to stop the killing of bald eagles. Participants in the immigrant policy survey read that immigrants from Ramulak, which is not a real country, had been banned from immigrating to the United States in the recent presidential travel ban. Participants in the survey regarding transgender persons serving in the military were informed that the Department of Defense was offering financial assistance to transgender service members required to transition back to their birth gender in order to continue their military service. Participants were then asked two attention check questions about the content of the policy explainer to confirm that they had read the content rather than skipping through the material. Each attention check question had an obvious correct answer and two blatantly wrong answers that mentioned items that were not discussed in the first policy explainer at all.

**Policy Attitude Post-Test after Misinformation Exposure.** Participants were then asked to state if they believed the information presented in the first policy explainer on a scale from strongly believing the information to strongly disbelieving the information. They were then asked to state if they found the resource they just reviewed trustworthy or not trustworthy. Then, again they were asked to rate on a scale from 0-100 how much they agree with the same policy statement used during the pre-test.

**Policy Attitude Post Test after Corrective Information Exposure.** Participants were then randomly exposed to either a liberal or conservative version of the second policy explainer that revealed the first policy explainer had misinformation. The climate change policy explainers revealed that the Trump administration was not in fact banning windmills, but rather taking no legal action at all. The immigration policy explainers revealed that Ramulak was not a real country and the United States had not banned immigrants from Ramulak from entering the country. The transgender persons serving in the military policy explainers revealed that the Department of Defense was not requiring or offering to pay for transgender servicemembers to transition back to their birth gender. Again, participants were asked two attention check questions on the content of the second policy explainer to confirm they had read the article. Each question had one correct answer and two options that were obviously not correct. Then, participants were asked to rate how much they believed the corrective information shared in the second policy explainer on a scale from strongly believing the information to strongly disbelieving the information. Participants were also asked to rate the second policy explainer as trustworthy or not trustworthy. And finally, they were asked a final time to rate their agreement level from 0 to 100 with the same policy statement they saw in the pre-test and post-test after

reading the first policy explainer. This was the second post-test that measured if a participant agreed or disagreed with the policy statement.

**Demographics.** The survey concluded with a series of demographic questions including asking participants to identify their age group and education level. They were also asked to report their gender and to describe their economic class.

**Debrief.** The survey concluded with a debriefing form that was embedded as the last page of the survey and advised participants that they could contact the primary investigator to decline allowing their data to be used for this study now that they were aware the survey exposed them to policy misinformation. The debriefing page also appeared for any participant that did not complete the survey and exited the survey before reaching the end. The form reported a randomly generated survey code that was unique to each participant. It also included references for further reading on misinformation. The randomly generated code had to be entered into the AMT platform in order for participants to receive the advertised compensation. The randomly generated code was also needed if a participant wanted to withdraw from the study as that was the only individual identifying information recorded in the results. To date, no participant has contacted the primary investigator to request their data be withdrawn from this study.

### ***Conditions***

Table 1  
*Experimental Conditions for Each Study*

<b>Policy Explainer Exposure Conditions</b>	<b>Misinformation Explainer</b>	<b>Corrective Information Source</b>
<i>Condition 1</i>	Conservative	Conservative
<i>Condition 2</i>	Liberal	Liberal
<i>Condition 3</i>	Conservative	Liberal
<i>Condition 4</i>	Liberal	Conservative

As mentioned earlier, there was a conservative and liberal version of each policy explainer. Thus, there were two explainers that contained misinformation and two explainers that contained corrective information for each survey. Participants were randomly exposed to either the liberal or conservative version of the misinformation explainer and also randomly exposed to either the liberal or conservative version of the corrective explainer. These two opportunities for randomizing exposure to a policy explainer created four possible conditions for each participant. The four possible conditions are labeled above in Table 1. Each survey dataset recorded which condition each participant was exposed in the three surveys.

### ***Sample***

Participants were recruited through Amazon's Mechanical Turk (AMT) platform. This service is an online platform that allows researchers to immediately access thousands of potential participants who are monetarily compensated for participating in survey-based experiments (Sprouse, 2011). From approximately 2006 until 2014, hundreds of published papers have utilized data from the AMT service (Chandler & Shapiro, 2016). AMT allows individual researchers to quickly collect high quality data from significantly sized samples amongst half a million-registered users (Chandler & Shapiro, 2016). Additionally, AMT allows researchers to

more quickly collect data from larger respondent convenience samples than other online convenience sampling methods. AMT allows researchers to set criteria for their users to be eligible to take the survey. AMT refers to those who take surveys for compensation as workers and those who posted surveys as recruiters.

The AMT platform asks worker users to complete an in-depth profile on a variety of demographics including employment, education, device ownership, online activity and social media profiles, political affiliation, personal finance, skills and specialization, marriage and family, lifestyle and other basic demographics. Researchers can then limit survey participation to particular demographics of their choosing and the invitation to take the survey will only appear on the dashboard of eligible worker users when they sign in. Surveys appear on a worker user's dashboard by displaying the survey creator's name, the title of the survey, how many persons have participated, the reward amount, and the creation date. Worker users also have the ability to preview the survey's instructions and some questions from their dashboard before accepting the invitation to participate in the survey.

Worker users who were U.S. residents and confirmed they had a Facebook account were eligible to participate in the three surveys for this dissertation. This population is most appropriate for this study because the research is specifically focusing on American policy misinformation that is most often shared on social media and the internet. Facebook is a popular social media platform and was one of few social media demographic options that the AMT platform asked users to confirm. Each participant also had to have completed at least one survey previously on the AMT platform to ensure they were familiar with the platform. Finally, worker users were only eligible to participate if they had a rate of their survey work being approved at least 50 percent of the time to ensure that they routinely provided honest responses

to surveys rather than rushing through questions for compensation. The surveys were run sequentially so that the first sample of participants could be labeled as having taken a survey and be considered ineligible for the next survey on the AMT platform. This was also done for the second sample before the third survey was released. This ensured that the three survey samples contained 300 different participants, and no one was aware of the misinformation contained in the first policy explainer until it was revealed within the survey.

The use of this platform to recruit participants resulted in anyone who did not have an AMT account being excluded. AMT worker users who had not updated their profile to indicate they have a Facebook account were also excluded from the possible pool of participants.

Additionally, any AMT worker user who was a non-US resident and those worker users who have not yet completed any surveys were also excluded from participating in this survey.

Participants who did not complete the survey in its entirety were removed from the results used for analysis. Each experiment had at least 100 participants to ensure that removal of those who got two or more attention questions wrong would still result in enough participants in each sample. Each participant was compensated \$1.00 for their completed survey and only received this incentive if they provided the survey code from the debriefing form in the AMT platform. Compensation was handled through the AMT Platform.

### ***Validity***

Given that AMT makes use of convenience sampling to recruit participants for a deployed survey, it is useful to note that the likelihood people will believe policy misinformation and accept corrective information from resources congruent with their political attitude is subjective at the individual level and is not meant to represent the US population as a whole. Previous studies have found that while AMT's US registered users are more likely to be younger,



better educated, and over-representative of European and Asian-Americans, these differences coordinate with common differences between Internet users and the general US population (Hillygus, Jackson, & Young, 2014). Overall, the large number of users on AMT available for recruitment make it possible to sufficiently retain large samples of specific demographic populations. This study did not target specific demographic populations so there is a chance that the three samples may favor a specific gender, race, or age group demographic over others since their opportunity to participate was not limited by a demographic preference.

The characteristics of the sample populations in AMT are transparent and more easily allow researchers to discuss possible limitations than other convenience sampling methods (Chandler & Shapiro, 2016). Other literature has examined if participants' ability to self-select to participate in a particular AMT study creates selection bias and construct validity concerns (Cheung, Burns, Sinclair, & Sliter, 2017). Overall, studies have found that the ability of AMT to cover a diverse range of population demographics is a unique benefit that other convenience sampling methods do not offer and reduces construct validity concerns that sampled participant characteristics do not coordinate with a general population (Woo, Keith, & Thornton, 2015). This study did not request participants to report their race, so there may be a construct validity concern about racial disparity that cannot be tracked since there is no reported data on participants' racial demographics. There is the ability to determine if there is a balanced diversification of gender, age, and economic class among the samples since participants were asked to report these characteristics.

All three surveys used convenience sampling to recruit participants. Differences such as participants being younger, better educated, and over-representative of European and Asian-Americans than the general US population was consistent with common differences between

Internet users and the general US population (Hillygus et al, 2014). As mentioned earlier, the AMT platform requests worker users to report a wide variety of demographics including employment, education, device ownership, online activity and social media profiles, political affiliation, personal finance, skills and specialization, marriage and family, lifestyle and other basic demographics. This wide range of reported demographics helps researchers reduce construct validity because AMT convenience sampling allowed for a diverse range of population demographics. The three samples were not limited beyond a user confirming they have a Facebook profile, has successfully completed a survey, and had a successful history of their work being accepted by researchers. The lack of limitation on those who qualified to take the survey meant that the three samples were recruited from a diverse population across many demographics.

### ***Reliability***

Many studies have found that AMT provides similar reliability as traditional experimental methods including in-person and phone surveys (Buhrmester, Kwang, & Gosling, 2011). It also gives users the ability to easily reject incomplete surveys and remove their answers from the collected data (Sprouse, 2011). Users were required to report the randomly generated code on the AMT platform to confirm their completion of the survey. It was confirmed that their work was complete before their compensation was released to them on the AMT platform.

A limitation of using AMT to collect data is that there is currently no method for debriefing participants to ensure they fully understand instructions or survey questions except to include debriefing questions within the deployed survey. This limits the researcher's ability to follow-up with participants that would be available to researchers conducting phone, mailed, or in-person surveys (Sprouse, 2011). This experiment exposed participants to misinformation and

then a few moments later exposed them to corrective information. There was no ability to debrief them beyond the automatic debriefing form that appeared at the end of the survey or whenever someone exited the survey early. The debriefing form attempted to subvert this limitation by providing the contact information for the primary investigator and inviting participants to email any follow-up questions or concerns they had. The limitation on personal information collected by the surveys to guarantee their confidentiality also limited the ability of the primary investigator to follow-up as no contact information was collected.

Additionally, AMT assigns unique identifiers to each registered user, which helps prevent individuals from repeatedly participating in a study (Chandler & Shapiro, 2016). AMT allows users virtual anonymity, but the assigned unique identifiers also assists researchers in avoiding users that have a history of providing low-quality responses to studies. The three surveys were run sequentially so that the first sample of workers could be tagged as having already taken the survey and prevented from participating in the subsequent surveys. The same process was undertaken with the second sample of workers to prevent them from taking the third survey. The limitation of only allowing workers who have at least a work approval rating of 50% allowed for the avoidance of users with a history of providing low-quality responses in this study.

Studies on the reliability of AMT have found that scaled reliability is superior to samples obtained from other convenience sampling methods and demographic data collected at different time-points has a 95% rate of consistency (Chandler & Shapiro, 2016). Debriefing information was included within the deployed survey to remove the limitation that there is no method for debriefing participants to ensure they fully understood instructions and the use of deception to expose them to misinformation. AMT's unique identifiers were used for each participant to

prevent individuals from repeatedly participating in more than one survey and the required work approval rating of 50% weeded out users that have a history of providing low-quality responses.

### **Institutional Review Board**

The Institutional Review Board (IRB) is an administrative board at the West Chester University of Pennsylvania that reviews all proposed research involving human research subjects to determine that the rights and welfare of the participants are protected whenever research is conducted. This experiment was reviewed by the IRB and approved under the new updated 45 CFR 46 common rule that went into effect January 21, 2019. This experiment, including the deception elements included in the design, were found to comply with federal regulations and university policies on research involving human subjects.

### **Methods of Analysis**

#### ***Impact of Policy Information on Participant's Support of Policy***

The nature of asking how people process misinformation or disinformation and its impact on their support of policy leads us to trying to understand the rate of change in their support of policy changing after their exposure to misinformation and then corrective information. To examine this effect, a factorial ANCOVA was originally considered as the appropriate test to determine the effect of different factors on the differences in levels of support among participants at the pretest, posttest, and follow-up checks on their support for the specific policy. However, multivariate analysis requires that the dependent variable be normally distributed and that the differences between the levels of the independent variables have equal variance (Lund & Lund, 2020). A pre-analysis examination of the *Before*, *During*, and *After* variables' skewness and kurtosis measurements in each of the three datasets revealed that the dependent variables did not meet the assumption of normal distribution. Additionally, the Mauchly's Test of Sphericity

results for each data set's independent variables, *PartyID*, *Ideology*, *MisinfoID*, and *CorrectInfoID* revealed that differences between levels did not have equal variance and the assumption of sphericity was not met. This analysis revealed that the intended factorial ANCOVA was not the appropriate test to run on the three different survey sets to determine if trends were similar amongst different policy topics or if the policy topic significantly impacted if participants' level of support changed after being exposed to misinformation and corrective information.

**Sign Test.** Traditionally, the sign test can determine if there is a median difference between paired observations. It also known as alternative to the paired-sampled t-test when the distribution of the differences is not normal or symmetrical (Lund & Lund, 2020). The previous analysis regarded the variables of this analysis already proved that the differences between the repeated observations of policy support before exposure to policy information, after exposure to misinformation, and after exposure to corrected information was not normal or symmetrical. Thus, the sign test is appropriate for determining if there is a statistically significant difference in policy support throughout the experiment. The three observations were considered as three paired observations: before exposure to policy information and after exposure to misinformation; after exposure to misinformation and after exposure to corrected information; and before exposure to policy information and after exposure to corrected information.

The sign-test required that the dependent variables are measured at a continuous or ordinal level (Lund & Lund, 2020). Each policy support measurement, *Before*, *During*, and *After*, were measured on a continuous scale of 0-100. The sign test requires that independent variables have two categorical groups (Lund & Lund, 2020). The independent variables of *Party ID* and *Ideology* contain more than two groups, so dummy variable with only two categorical

options were created to use as a proxy for *Party ID* and *Ideology* variables. The other independent variables *MisinfoID* and *CorrectID* were measured using only two categorical options - liberal and conservative - so they could be used directly in the sign test analysis.

The sign test also required that paired observations of participants must be independent of one another (Lund & Lund, 2020). Given that participants were recruited anonymously on the AMT platform, took the survey independently, and no participants was able to take more than one of the surveys, the observations of policy support in each dataset is independent.

The sign test is appropriate for paired observations that involve two different points in time. While each survey recorded policy support at each point in time, it is appropriate to treat these three policy support observations as three sets of paired observation and run the sign test three times for each of the three datasets. Nine sign tests were used to determine if there was a significant change in policy support before, during, and after participants were exposed to misinformation and corrected information.

The results of each sign test determined the medians of each observation in the tested pair and the median difference between the paired observations. It also revealed the number of people who increased their support, decreased their support, or remained the same between the paired observations. And finally, each sign test determined if the median of the differences between paired observations was statistically significant (Lund & Lund, 2020).

### ***Trust in Policy Sources***

Binomial logistic regressions are used to possibly predict if an observation is one of two options of a dichotomous dependent variable due to one or more independent variables (Lund & Lund, 2020). In this dissertation, binomial logistic regression was used to anticipate if

participants trusted or did not trust the misinformation and corrected information resources based on their political ideology, political party, or the political orientation of the policy resource.

Given that the dependent variables, *MisinfoTrust* and *CorrectInfoTrust* only had two choices - trust or not trust - there was no attempt to predict a mathematical value of the trust as one would with linear regression. Rather, this analysis wanted to predict the probability that a participant trusted the misinformation resource and separately the probability that a participant trusted the corrected information resource. Binomial logistic regression is appropriate for determining if a participant trusted either policy resource because it uses interactions between political ideology, political party, and the political leaning of the resource to forecast if the participant was likely to trust or not trust each resource to which they were exposed (Lund & Lund, 2020).

Two binomial logistic regressions were performed for each dataset to determine the likelihood participants trust the misinformation and corrected information resources for a total of six binomial logistic regressions. The analysis of the results of these binomial logistic regressions in the next chapter determined how accurate the regression predicts the trust of an information resource, test how appropriate the model fits the data, and determine how much variation in participants' trust in a resource is determined by political ideology, political party, or the political leaning of the information resource.

As mentioned earlier in the chapter, there are four potential conditions of information exposure for each study. Participants could have been exposed to a conservative misinformation resource and then a conservative corrective information source as the first condition. Participants could have been exposed to a liberal misinformation source and then a liberal corrected information source as the second possible condition. Participants could have been exposed to a

conservative misinformation resource and then a liberal corrected information source as the third possible condition. Finally, participants could have been exposed to a liberal misinformation resource and then a conservative corrected information source as the fourth possible condition. Participants were exposed to one of the four conditions randomly.

To test the results of all four possible conditions in binomial logistic regressions, dummy variables were used to test if conservative or liberal ideology and Republican and Democratic party membership as well as the conversation or liberal orientation of the resource had an influence on the likelihood the participant trusted the resource.

### ***Belief of Presented Information***

Ordinal logistic regression was used to predict if political party identification, political ideology, or the political leaning of the information source had an impact on if participants believed the misinformation and corrected information source. This analysis was used to anticipate if a participant was more likely to believe or less likely to believe the misinformation source in each of the three surveys based on their political party member, political ideology, and the political leaning of the misinformation source. Similarly, an ordinal logistic regression was run for each of the three datasets to also measure if participants were more likely or less likely to believe the corrected information source based on their political party, political ideology, and the political leaning of the corrected information source. In all, two ordinal logistic regressions were run on each of the three survey results for a total of six ordinal logistic regressions to determine if political party, ideology, or leaning of the information source had a statistical impact of a person's belief of information.

Each ordinal logistical regression also demonstrated how well the model predicted the likelihood of a participant's believe in misinformation or corrected information and determine



the odds that one group of the categorical independent variables, for example Republican participants, had a higher value of strongly believing misinformation over other groups, such as Democrats and Independent participants.

Ordinal logistical regression was appropriate because the dependent variables, the belief of the misinformation source and the belief of the corrected information source, were measured at the ordinal level. Additionally, the independent variables, including political party, political ideology, and the political leaning of the information sources were measured at a categorical level.

### **Summary**

Public policy has long used information as evidence to support evidence-based policies and demonstrate how the expected outcomes of their proposed solutions will resolve public problems. Yet, we are existing in an information age where more people have easier access to different types of information, and a consequence of that easy access is that they are also able to easily access deceptive information. Public administrators can no longer simply assume the public will accept their policy evidence as valid and need to understand how the public relates to information. The spread of misinformation and disinformation online has made the public trust particular resources and mistrust others and this study sought to test how their processing of information from different resources can be measured. If those who create public policy can understand how the public best relates to policy information, be it true or false information, they can then adapt to sharing their information in the best manner to reach the public. This study is important and timely. The use of disinformation and misinformation as propaganda to support or disavow policy has been a prevalent practice for a very long time, yet the current rampant and rapid spread of false information should be a concern for public administrators. If we want to

continue to develop policies that best reflect the wishes of the public and also resolve public problems, we have no choice but to seek out resolutions for dispelling misinformation and we cannot do that until we understand why the public believes misinformation over facts.

This chapter first explained the important research question this study is seeking to answer – does the political leaning of a policy information source affect the likelihood a person will believe the presented information and support the policy? The logically developed ideas, or concepts, that were important to consider for this study were then described in detail. In summary, it was important to understand the idea of how people process misinformation and disinformation, their trust in policy sources, their belief of presented information, and the impact of policy information on a person's support of policy to fully understand how misinformation impacts public backing for policy. The chapter then next outlined specific measurements that accurately represent these concepts and how each measurement was measured within the survey experiments. Among the most important measurements were participant's policy attitude before exposure to any information, their policy attitude after being exposed to misinformation, and their final policy attitude after the misinformation was revealed and corrected with true information. These pre-tests and post-tests of a participant's attitude determined if their policy support increased or waivered as their information exposure increased. Other important measurements were the participants' belief of the misinformation, their trust of the different information sources, and their belief of the corrected information. Then, the design of the survey experiment was discussed including how the three surveys on different policy topics were run sequentially to avoid overlapping samples, the order of information collected from participants, and the validity and reliability of this design. Finally, the multivariate statistical methods that

were used to analyze the collected data to determine the findings discussed in the next chapter were outlined in detail.

The next chapter will discuss the analysis of the research data collected from the three survey experiments. It will address findings from each experiment. It will discuss how the data was prepared for analysis and the results of the methods outlined in this chapter.

## Chapter 4: Findings

This chapter will discuss the statistical analysis completed to answer the identified research questions. The research question and a review of the design will be first discussed and then methods used to evaluate and clean the data will be reviewed. Analysis regarding participants' multiple measurements of policy support will be discussed. The analysis will identify if their policy support was influenced by the resource, their political ideology, or their political party membership. Next, analysis to determine if participant's trust of the misinformation and corrective information sources was influenced by the sources' political leanings, a participant's political ideology, or the participant's political party will be described. Finally, the chapter will conclude with the analysis to determine if a participant's level of belief of misinformation and corrective information can be swayed by different variables.

### Research Questions

As described in the previous chapter, three experiments were deployed to answer the following research questions.

- Does exposure to misinformation and corrected information affect the likelihood an individual will support a policy?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing corrected information affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will believe the presented information?

- Does the political leaning of a policy information source containing corrective information affect the likelihood an individual will believe the presented information?

Each survey experiment focused on participants' attitudinal position on a different policy. The first experiment focused on participants' attitudinal position on immigration. The second experiment focused on participants' attitudinal position on climate change policy and the third experiment focused on participants' attitudinal position on policies regarding transgender individuals serving in the military. Within each survey, a pre-test of each participant's attitudinal position on the chosen policy topic was measured before they were exposed to any policy information. Participants were then randomly presented with either a liberal or conservative explainer that deliberately contained misinformation regarding the specific policy. After reading through the policy resource, each participant was asked if they believed the presented information and to indicate their trust of the information resource. Then their attitudinal position on the policy topic was again measured. Each participant was then randomly exposed to a conservative or liberal policy source that revealed the first resource contained misinformation and provided a correction to the erroneous information. The participant's belief of the corrected information source and their trust of the second resource were measured. And a post-test attitudinal position on the policy topic was then collected to determine if the sequential exposure to misinformation and corrective information affects their support of the policy. The experiments hypothesized the following:

- Individuals' exposure to misinformation and corrected policy information is likely to affect their support of policy.

- Individuals are more likely to trust information sources containing misinformation that are congruent with their political ideology.
- Individuals are more likely to trust information sources containing corrected information that are congruent with their political ideology.
- Individuals are more likely to believe misinformation presented in a policy information source congruent with their political ideology.
- Individuals are more likely to believe corrected information presented in a policy information source that is congruent with their political ideology.

### **Data Evaluation**

The three experiments rendered three sets of samples with 100 participants each. However, the total of participants for each dataset was decreased after the data had been cleaned as described in the following paragraph.

#### *Data Cleaning*

**Removal of Incorrect Attention Check Responses.** It was important to confirm that participants actually read the two policy explainers presented to them while taking the survey in order to understand how they processed misinformation and corrected information. The results of the attention check questions were evaluated to identify participants who did not provide high quality responses. A threshold of answering two or more attention check questions incorrectly was applied to the results of each survey. Participants identified as having two or more attention check questions incorrect were removed from each set of results to ensure that the evaluated results only included participants who had read the policy explainers and were actually exposed to misinformation and corrected information. The participants who were removed either did not successfully comprehend the information presented in the policy explainers or they rushed

through the survey to receive the provided compensation rather than taking the time to provide high quality responses. Either option indicated that the exposure to misinformation and corrected information was not likely to impact their support of policy as they had not interacted with the information object, the policy explainer, and did not create a subjective relationship with the knowledge conveyed by the information object.

Twenty-two participants had two or more attention check questions regarding the climate change policy explainers incorrect and were removed from the results. The climate change survey dataset had a remaining 78 participants after they were removed. Twenty-one participants had two or more attention check questions regarding the transgender policy explainers incorrect and were removed from the dataset. The transgender survey had a total of 79 valid participants after they were removed. Fifteen participants had two or more attention check questions regarding the immigration policy explainers incorrect and were removed from the immigration survey results. The immigration survey had 85 valid participant results after their removal. The totals of how many invalid responses were removed from each survey is displayed in Table 2 below.

Table 2  
*Totals of Invalid Responses Removed in Each Survey*

<b>Survey Topic</b>	<b>Invalid Responses Removed From Results</b>	<b>Valid Responses Remaining in Results</b>
Climate Change	22	78
Transgender Service in the Military	21	79
Immigration	15	85

### ***Outlier Cases***

In order to confirm that there were no extreme scores in the dependent variables used for this analysis that could affect the variable's distribution, standard z scores were calculated, and stem-

and-leaf plots were examined for the *Before*, *During*, *After*, *MisinfoTrust*, *CorrectedTrust*, *MisinfoBelieve*, and *CorrectedBelieve* variables.

**Standard Z Scores.** Abu-Bader (2016) determined that 99.74 percent of calculated z scores will fall between the values of 3 and -3. Anything outside of this range was considered an outlier that could affect the distribution of the variable. Z scores were calculated for the before, during, after, misinfotrust, correctedtrust, misinfobelieve, and correctedbelieve variables in each survey dataset. The z score ranges for each evaluated variable in the all surveys dataset demonstrated that there were no identified outliers outside the acceptable range. The results were similar for the z score ranges calculated for the same variables in the climate change, immigration, and transgender survey results z scores fell within the acceptable range and no outliers were identified for removal.

**Box Plots.** Boxplot graphs for *Before*, *During*, *After*, *MisinfoTrust*, *CorrectedTrust*, *MisinfoBelieve*, and *CorrectedBelieve* variables were examined for each dataset. Each graph displayed outliers found within the variable's values, with minor outliers marked with a *o* and extreme outliers that should be considered for removal marked with an *x*. Some minor outliers were identified on the boxplots for the *Before*, *During*, and *After* variables in the climate change survey results and no outliers were identified for the other plotted variables. No extreme outliers were identified within the evaluated variables. A few minor outliers were identified within the *CorrectedBelieve* values and no extreme outliers were identified in any other evaluated variable within the immigration survey results. A limited number of minor outliers were identified for the *During* and *After* variables in the transgender survey results. In summary, there were no reported extreme outliers that required removal from the results in any analyzed variable.



This examination confirmed that no reported results had any outliers or abnormal results that required removal from the dependent variables before further analysis.

## **Analysis**

### ***Impact of Policy Information on Participant's Support of Policy***

The nature of asking how people process misinformation or disinformation and its impact on their support of policy leads us to trying to understand the rate of change in their support of policy after their exposure to misinformation and then corrective information. A review of the histograms, measures of skewness and kurtosis, and descriptive statistics for the *Before*, *During*, and *After* ratings of policy support revealed results were negatively skewed, and the assumption of normality could not be confirmed in the three survey sets. The evaluation of these assumptions and the inability to meet them made it clear that a non-parametric test would be more appropriate to evaluate if there was any change in participants' support of policy after being exposed to misinformation and then corrected information.

The sign test is the nonparametric equivalent to the dependent t-test and is commonly used to investigate the change in scores from one time to another (Lund & Lund, 2020). Since there were three measurements of policy support collected for this experiment, the comparison to calculate rate of change of policy support as participants were exposed to misinformation and corrected information will require several renditions of this test. First, the median differences between participants' *Before*-scores and *During*-scores were compared to determine if there is a significant change in policy support after being exposed to misinformation. Then, the median differences between the participants' *During* and *After*-scores were compared to determine if there is a significance change in policy support after being exposed to corrective information. Finally, the median differences between participants' *Before* and *After*-scores were compared to

determine if there was a significant change in policy support after being exposed to misinformation and then corrective information.

**Climate Change.** Three nonparametric sign tests were conducted to measure if there was change in policy support after being exposed to misinformation, after being exposed to corrective information, and after being exposed to both misinformation and corrective information.

*Before and After Exposure to Misinformation.* A sign test was conducted to determine the effect of exposure to policy misinformation on participants' support of climate change policy.

The null and alternate hypotheses are as follows:

- $H_0$ : There is no difference in support for climate change policy amongst U.S. residents after being exposed to misinformation.
- $H_a$ : There is a difference in support for climate change policy amongst U.S. residents after being exposed to misinformation.

78 participants were asked to score their support of a specific climate change policy statement before reading any policy information and again score their support of the same policy after reading the first policy explainer that contained misinformation. In a comparison of median scores, seventeen participants improved their policy support score and seven participants decreased their policy support score after reading the climate change misinformation. Another 54 participants did not change their policy support score after reading the misinformation. The median score for climate change policy support before reading any information was 93.5 and the median score after reading the misinformation was 96.5 with no median difference (.00). There was not a statistically significant difference in policy support scores after participants were exposed to climate change misinformation ( $z = .07, p = .06$ ).

*Before and After Exposure to Corrected Information.* A second sign test was conducted to determine if exposure to corrected information after being exposed to misinformation had an impact on participants' support of climate change policy. Again, 78 participants were asked to score their support of policy after being exposed to a policy explainer that contained corrective information. Eleven participants had an increase in score and eleven participants had a decrease in score after being exposed to corrective information. The remaining 56 participants did not have any change in policy support after being exposed to corrective information. The median score for supporting policy climate change before being exposed to corrective information was 96.5 and the median score after being exposed to corrective information was 95 with no reported median difference (.00). These results indicate that there was no statistically significant difference in participants' support of climate change policy after being exposed to corrective information ( $z = 0, p = 1.0$ ).

*Before Exposure to any Policy Information and After Exposure to Misinformation and Corrective Information.* A third sign test was conducted to determine the effect of sequential exposure to both misinformation and corrective information on participants' support of climate change policy. The 78 participants reported their support of a specific climate change policy statement before any exposure to policy information and after being exposed to both misinformation and corrective information. Seventeen participants increased their support of the policy and eleven participants decreased their support after being exposure to both misinformation and corrective information. The remaining 50 participants experienced no change in their support of climate change policy after being exposed sequentially to misinformation and corrective information. The median score for supporting climate change policy was 93.5 before participants read any policy information and 95.0 after being exposed to

both misinformation and corrective information. There was no calculated median difference between these scores (0.0). This information leads to the conclusion that there was no statistical difference in support for climate change policy after participants were exposed to misinformation and corrective information ( $z = .95, p = .35$ ).

**Immigration.** Histograms, measures of skewness and kurtosis, and descriptive statistics for the before, during, and after ratings of policy support in the immigration survey revealed that the reported scores were severely negatively skewed, and the assumption of normality could not be confirmed. It was the same issues that appeared in the before, during, and after variables in climate change survey results. As an alternate to multiparametric tests, three sign tests were used to measure change in median scores of policy support to determine the effect of exposing participants to immigration policy misinformation and corrected information.

*Before and After Exposure to Misinformation.* The first sign test was implemented to identify if there is an effect on support of immigration policy due to being exposed to misinformation. Eight-five participants were asked to report their level of support of a specific immigration policy before reading any information on the policy. They were then again asked to report their level of support on the same policy after reading a policy explainer that contained misinformation. Results indicate that fourteen people increased their support of immigration policy and 21 people decreased their support after being exposed to misinformation. Fifty people did not change their support even after reading false information about the immigration policy in the first resource. The median score for immigration policy support before participants read any information was 77 and the median score for policy support after being exposed to misinformation was 76. There was no calculated median difference (0.0). The results of the first

sign test indicated that there was no significant statistical difference between policy support scores before and after being exposed to misinformation ( $z = -1.01, p = .31$ ).

*Before and After Exposure to Corrected Information.* A second sign test was executed to determine if there was any effect on participants' support of immigration policy after being exposed to misinformation and then being exposed to corrective information. Eighty-five people were asked to score their support of an immigration policy after reading the misinformation in the first policy resource and again after reading corrective information in the second policy source. Thirteen people increased their support of immigration policy and 22 people decreased their support of immigration policy after being exposed to misinformation and then being exposed to corrective information. Again, fifty people did not change their support after reading both policy resources and being exposed to misinformation and corrective information. The median score of immigration policy support after people were exposed to misinformation was 76. The median score of immigration policy support after people read the corrective information was 75 and there was no calculated median difference for these scores (0.0). There was no significant difference in policy support scores for immigration policy after participants were exposed to misinformation and then corrective information ( $z = -1.35, p = .18$ ).

*Before Exposure to any Policy Information and After Exposure to Misinformation and Corrective Information.* The third sign test was completed to measure if being exposed to misinformation and correction information changed a participant's policy support compared to their level of support before they read any policy information. All 85 participants recorded their level of support for immigration policy before being exposed to any policy information and then recorded their level of support for the same policy after they had read two policy explainers with misinformation and corrected information subsequently. Sixteen people reported higher scores

after reading both explainers and twenty-one people reduced their reported support of immigration policy after reading both explainers. Forty-eight people did not change their support of the immigration policy despite being exposed to both misinformation and corrected information. The median score of immigration policy support before participants had read any policy information was 77 and the median support score after participants had read both policy explainers was 77. There was no calculated median difference (0.0). There was no significant difference between participants' support of immigration policy before they read any policy information and after they were exposed to misinformation and corrected information ( $z = -0.66$ ,  $p = .51$ )

**Transgender Military Service.** The histograms, measures of skewness and kurtosis, and descriptive statistics for the *Before*, *During*, and *After* ratings of policy support of transgressors in the military policy survey were examined to determine appropriate analysis. Like the other surveys, these variables were severely negatively skewed, and the assumption of normality could not be confirmed. Three sign tests were again used to measure change in median scores of policy support to determine the effect of exposing participants to transgender military service policy misinformation and corrected information.

*Before and After Exposure to Misinformation.* The first sign test evaluated if the exposure to misinformation significantly affected participants' support of transgender military service policy. The 79 participants were asked to rate their support of transgender military service policy before reading anything about the policy and again after they read that first policy resource that contained misinformation. Seventeen participants increased their support score and six participants decreased their support score after being exposed to misinformation. The remaining 56 participants did not change their score. The median score for before participants were exposed

to misinformation and after they were exposed was the same score of 95. There was also no calculated median difference (0.0) between these scores. The sign test revealed the differences between policy support scores before and after exposure to misinformation were not statistically significant ( $z = 2.08, p < .05$ ).

*Before and After Exposure to Corrected Information.* The second sign test assessed if the exposure to corrected information immediately after being exposed to misinformation affected support for transgender military service policy. Again, the 79 participants were asked to rate their support of the policy after being exposed to misinformation in the first resource and then again after being exposed to corrected information in the second resource. Five people increased their support and eleven decreased their support after reading the corrective information in the second source. The remaining 63 people did not change their support score. Final results indicated that exposure to corrective information to counter misinformation did not have an impact on participants' support of transgender military service policy ( $z = -1.25, p = .21$ ).

*Before Exposure to any Policy Information and After Exposure to Misinformation and Corrective Information.* The third sign test compared the median policy support scores for the during and after variables to determine if sequential exposure to misinformation and corrected information exposure had an effect on participants' support of transgender military service policy. All 79 participants were asked to score their support of the policy before being exposed any information and then again after reading the corrective information in the second policy source. Thirteen people increased their policy support after reading both the misinformation and corrective information while nine people decreased their support. Fifty-seven participants did not change their score after reading the two policy sources. The median scores for before exposure to information and after exposure to misinformation and corrective information were both 95.

There was no calculated median difference (0.0). The sign test determined that the sequential exposure to misinformation and corrective information did not have a statistically significance impact on participants' support for transgender military service policy ( $z = 2.35$ ,  $p = .52$ ).

### *Trust in Policy Sources*

Trust in policy sources involves answering two research questions for each of the three datasets:

- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing corrected information affect the likelihood an individual will trust the information source?

**Trust of Misinformation Source.** This dissertation hypothesized that participants were more likely to trust an information source containing misinformation if the political leaning of the information source was congruent with their own political identity and political ideology. Binomial logistic regressions are used to predict the likelihood that a response falls into one of two choices of a dichotomous dependent variable based on one or several independent variables that must be continuous or categorical (Abu-Bader, 2016). Unlike linear regression, this test is only trying to determine the probability of being one of two options rather than predicting the value of a dependent variable (Lund & Lund, 2020). As there were four possible conditions of exposure to misinformation within each survey, a binomial logistic regression was performed using dummy variables for each condition in each dataset to determine the likelihood that the political leaning of the information source, participants' political ideology, or participants' political party influenced the likelihood the participant trusted the resource. The four tested conditions are outlined in the table below.



Table 3

*Conditions Tested by Binomial Logistic Regressions for Trust of Misinformation Source*

<b>Misinformation Policy Explainer Condition</b>	<b>Misinformation Resource ID</b>	<b>Participant Political ID</b>	<b>Ideology ID</b>
<i>Condition 1</i>	Conservative	Republican	Conservative
<i>Condition 2</i>	Liberal	Democrat	Liberal
<i>Condition 3</i>	Conservative	Democrat	Democrat
<i>Condition 4</i>	Liberal	Republican	Liberal

*Climate Change.* To prepare the data in the climate change survey dataset for testing the four misinformation conditions collectively, some of the independent variables needed to be recoded into binary categories. The *PartyID* variable was recoded into two dummy variables – *RepublicansOnly* and *DemocratsOnly*. Respondents who reported they were a Republican were reassigned the value of 1 and all other respondents were reassigned the value 0 for the *RepublicansOnly* variable. Similarly, respondents who reported they were a Democrat were reassigned the value of 1 and all other respondents were reassigned the value of 0 for the *DemocratsOnly* variable. The Ideology variable was also recoded into two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly*. Those respondents who responded they were extremely liberal, liberal, and slightly liberal were assigned the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable. Likewise, the respondents who responded that they were extremely conservative, conservative, and slightly conservative were assigned the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *MisinfoID\_Liberal* assigned the resources that were liberal a value of 1 and the resource that was conservative a 0. To create a variable where the conservative resource was an affirmative value of 1 for analysis of the first and third

conditions, this variable reassigned the conservative value of 1 and the liberal resource a value of 0 to create a new variable, *MisinfoID\_Conservative*.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the climate change misinformation source. In all, six factors were entered into the analysis - two regarding political party identification (*RepublicansOnly*, *DemocratsOnly*), two regarding political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the misinformation source political leaning (*MisinfoID\_Conservative*, *MisinfoID\_Liberals*). There six dummy variables were used to ensure that all four conditions were analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors.

The results of the stepwise likelihood ratio logistic regression on 78 cases in the climate change dataset revealed that two factors were significant predictors of participants' trust of the misinformation resource - *MisinfoID\_Liberal* ( $Wald_{(df=1)} = 17.56, p = .000$ ), and *Ideo\_ConservativesOnly* ( $Wald_{(df=1)} = 4.02, p < .05$ ). It was more likely that not conservative participants would trust the misinformation resource over conservative participants, and it was more likely that participants would trust the misinformation source when it was not liberal under all conditions. In other words, liberal participants were more likely to trust misinformation resource had a liberal leaning. The results show that the overall model significantly improved the prediction of the occurrence of people trusting the misinformation source among participants under all conditions ( $\chi^2_{(df=2)} = 25.22, p = .000$ ). The model had a very good fit ( $-2 \log \text{likelihood} = 76.61, p = .855$ ). The results of the Cox and Snell and the Nagelkerke  $R^2$  indicate that the

political leaning of the information source account 23.5 to 32.2 percent of the variance in people’s trust of the misinformation source under all conditions. The participant’s ideology accounts for another 4.1 to 5.7 percent of the variance in people’s trust of the misinformation source. Overall, the model accounted for 27.6 to 37.9 percent of the variance of people’s trust of the misinformation source under all conditions.

Finally, the model correctly classified 82.0 percent of “not trustworthy” cases and 67.9 percent of the “trustworthy” cases. Overall, the model has a success rate of 76.9 percent.

Table 4

*Logistic Regression Predicting Likelihood of Trust in Climate Change Misinformation Source Based on Party ID, Ideology, and Resource Political Leaning<sup>a, b</sup>*

	B	S.E.	Wald	df	<i>p.</i>	Odds Ratio
Ideology: Conservatives Only	1.34	0.67	4.02	1	.045	3.82
Political Leaning of Misinformation Source: Liberal	-2.74	0.65	17.56	1	.000	.07
Constant	-0.55	0.56	0.99	1	.320	.58
<sup>a</sup> Overall Model: $\chi^2(3) = 25.22, p = .000$						
<sup>b</sup> Goodness-of-fit: -2LL: 76.61; $p > .05$						

*Immigration.* To prepare the data in the immigration survey dataset for testing the four misinformation conditions collectively, the independent variables were recoded into binary categories dummy variables. The PartyID variable was recoded into two dummy variables – *RepublicansOnly* and *DemocratsOnly*. Respondents who reported they were a Republican were reassigned the value of 1 and all other respondents were reassigned the value 0 for the *RepublicansOnly* variable. Similarly, respondents who reports they were a Democrat were

reassigned the value of 1 and all other respondents were reassigned the value of 0 for the *DemocratsOnly* variable. The Ideology variable was also recoded into two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly*. Those respondents who responded they were extremely liberal, liberal, and slightly liberal were assigned the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable. Likewise, the respondents who responded that they were extremely conservative, conservative, and slightly conservative were assigned the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *MisinfoID\_Liberal* assigned the resources that were liberal a value of 1 and the resource that was conservative a 0. To create a variable where the conservative resource was an affirmative value of 1 for analysis of the first and third conditions, this variable reassigned the conservative value of 1 and the liberal resource a value of 0 to create a new variable, *MisinfoID\_Conservative*.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the immigration misinformation source. In all, six factors were entered into the analysis - two regarding political party identification (*RepublicansOnly*, *DemocratsOnly*), two regarding political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the misinformation source political leaning (*MisinfoID\_Conservative*, *MisinfoID\_Liberals*). These six dummy variables were used to ensure that all four conditions were analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors, except for *MisinfoID\_Conservative*.

The results of the stepwise likelihood ratio logistic regression on 85 cases in the immigration dataset revealed that one factor was a significant predictor of participants' trust of the misinformation resource - *DemocratsOnly* ( $Wald_{(df=1)} = 5.94, p < .05$ ). It was more likely that not democratic participants would not trust the misinformation resource over democratic participants under all conditions. The results show that the overall model significantly improved the prediction of the occurrence of people trusting the misinformation source among participants under all conditions ( $\chi^2_{(df=1)} = 6.31, p < .05$ ). The results of the Cox and Snell and the Nagelkerke  $R^2$  indicate the model accounted for 7.2 to 9.8 percent of the variance of people's trust of the misinformation source under all conditions.

Finally, the model correctly classified 0 percent of "not trustworthy" cases and 100 percent of the "trustworthy" cases. Overall, the model has a success rate of 64.7 percent.

Table 5  
*Logistic Regression Predicting Likelihood of Trust in Immigration Misinformation Source Based on Party ID, Ideology, and Resource Political Leaning<sup>a, b</sup>*

	B	Wald	df	p.	-2LL	R <sup>2</sup>	Odds Ratio
Party ID: Democrats	-1.18	5.94	1	.015	104.06	.072-.098	.31
Constant	1.27	11.30	1	.001			3.56
<sup>a</sup> Overall Model: $\chi^2(1) = 6.31, p = .012$							
<sup>b</sup> Goodness-of-fit: -2LL: 104.06; $p = 0$							

*Transgender Military Service.* To prepare the data in the transgender military survey some of the independent variables were recoded into binary categories. The PartyID variable was recoded into two dummy variables – *RepublicansOnly* and *DemocratsOnly*. Respondents who reported they were a Republican were reassigned the value of 1 and all other respondents were reassigned the value 0 for the *RepublicansOnly* variable. Similarly, respondents who reports they were a Democrat were reassigned the value of 1 and all other respondents were reassigned the

value of 0 for the *DemocratsOnly* variable. The Ideology variable was also recoded into two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly*. Those respondents who responded they were extremely liberal, liberal, and slightly liberal were assigned the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable.

Likewise, the respondents who responded that they were extremely conservative, conservative, and slightly conservative were assigned the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *MisinfoID\_Liberal* assigned the resources that were liberal a value of 1 and the resource that was conservative a 0. To create a variable where the conservative resource was an affirmative value of 1 for analysis of the first and third conditions, this variable reassigned the conservative value of 1 and the liberal resource a value of 0 to create a new variable, *MisinfoID\_Conservative*.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the climate change misinformation source. In all, six factors were entered into the analysis - two regarding political party identification (*RepublicansOnly*, *DemocratsOnly*), two regarding political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the misinformation source political leaning (*MisinfoID\_Conservative*, *MisinfoID\_Liberals*). Six dummy variables were used to ensure that all four conditions were analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors.

The results of the stepwise likelihood ratio logistic regression on 79 cases in the climate change dataset revealed that none these factors were significant predictors of participants' trust of the misinformation resource. The results show that the overall model did not significantly

improved the prediction of the occurrence of people trusting the misinformation source among participants under all conditions ( $\chi^2_{(df=2)} = 25.22, p = .000$ ). The model had a very good fit (-2 log likelihood = 76.61,  $p = .855$ ). The results of the Cox and Snell and the Nagelkerke  $R^2$  indicate that the political leaning of the information source account 23.5 to 32.2 percent of the variance in people's trust of the misinformation source under all conditions. The participant's ideology accounts for another 4.1 to 5.7 percent of the variance in people's trust of the misinformation source. Overall, the model accounted for 27.6 to 37.9 percent of the variance of people's trust of the misinformation source under all conditions.

Finally, the model correctly classified 82.0 percent of "not trustworthy" cases and 67.9 percent of the "trustworthy" cases. Overall, the model has a success rate of 76.9 percent.

Table 6

*Logistic Regression Predicting Likelihood of Trust in Transgender Misinformation Source Based on Party ID, Ideology, and Resource Political Leaning<sup>a, b</sup>*

	B	S.E.	Wald	df	<i>p.</i>	Odds Ratio
Ideology: Conservatives Only	1.34	0.67	4.02	1	.045	3.82
Political Leaning of Misinformation Source: Conservative	-2.74	0.65	17.56	1	.000	.07
Constant	-0.55	0.56	0.99	1	.320	.58
<sup>a</sup> Overall Model: $\chi^2(3) = 25.22, p = .000$						
<sup>b</sup> Goodness-of-fit: -2LL: 76.61, $p > .05$						

**Trust of Corrected Information Source.** This dissertation hypothesized that participants were more likely to trust an information source containing corrected information and that revealed the previous resource contained misinformation if the political leaning of the

information source was compatible with their political identity and political ideology. Binomial logistic regressions were used, similar to the calculations done for predicting trust in the misinformation resource, to predict the likelihood that a participant either trusts or does not trust the corrected information resource. The dependent variable, the trust of the corrected information source, was a dichotomous variable and the six indicators, or independent variables, were categorical. There were also four possible conditions of exposure to corrected within each survey. A binomial logistic regression was performed for each condition in each dataset to determine the likelihood that the political leaning of the information source, their political identity, or political ideology influenced the likelihood the participant trusted the corrected information resource. The four tested conditions are outlined in the table below.

Table 7

*Conditions Tested by Binomial Logistic Regressions for Trust of Corrected Information Source*

<b>Corrected Policy Explainer Condition</b>	<b>Corrected Information Resource ID</b>	<b>Participant Political ID</b>	<b>Ideology ID</b>
<i>Condition 1</i>	Conservative	Republican	Conservative
<i>Condition 2</i>	Liberal	Democrat	Liberal
<i>Condition 3</i>	Conservative	Democrat	Democrat
<i>Condition 4</i>	Liberal	Republican	Liberal

**Climate Change.** The same dummy variables that were previously created as indicators to test the four misinformation conditions collectively were also used to test the corrected information conditions. Two dummy variables – *RepublicansOnly* and *DemocratsOnly* were used to test if participants’ political party identification was an indicator on if they trusted or mistrusted the corrected information resource. Respondents who reported they were a Republican assigned the value of 1 and all other respondents were assigned the value 0 for the



*RepublicansOnly* variable. Similarly, respondents who reported they were a Democrat were given the value of 1 and all other respondents were ascribed the value of 0 for the *DemocratsOnly* variable. The two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly* were used to test if participants' political ideology was an indicator of if they trusted or did not trust the corrected information resource. Respondents who answered they were extremely liberal, liberal, and slightly liberal were given the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable. Likewise, respondents who responded that they were extremely conservative, conservative, and slightly conservative were ascribed the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *CorrectedID\_Conservative* reassigned the conservative resource a value of 1 and the liberal resource a value of 0 to create a new dummy variable of the *CorrectedID* variable.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the climate change corrected source. In all, six indicators were entered into the analysis - two concerning participant political party identification (*RepublicansOnly*, *DemocratsOnly*), two considering participant political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the misinformation source political leaning (*CorrectedID\_Conservative*, *CorrectedID*). There six indicator variables were used to ensure that all four conditions were analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors.

The results of the stepwise likelihood ratio logistic regression on 78 cases in the climate change dataset revealed that two factors were significant predictors of participants' trust of the corrected resource - *RepublicansOnly* ( $Wald_{(df=1)} = 3.79, p < .05$ ). It was more likely that not Republican participants would trust the corrected resource over Republican participants under all conditions. In other words, Democratic and Independent participants were more likely to trust the corrected information resource, no matter the political leaning. The results show that the overall model significantly improved the prediction of the occurrence of people trusting the misinformation source among participants under all conditions ( $\chi^2_{(df=1)} = 4.34, p < .05$ ). The model had a very good fit (-2 log likelihood = 98.61). The results of the Cox and Snell and the Nagelerke  $R^2$  indicate that the party identification of the participant accounted for 5.4 to 7.4 percent of the variance of people's trust of the corrected source under all conditions.

Finally, the model correctly classified 100 percent of "not trustworthy" cases and 0 percent of the "trustworthy" cases. Overall, the model has a success rate of 62.8 percent.

Table 8

*Logistic Regression Predicting Likelihood of Trust in Climate Change Corrected Source Based on Party ID, Ideology, and Resource Political Leaning<sup>a, b</sup>*

	B	S.E.	Wald	df	p.	Odds Ratio
Party ID: Republicans Only	1.20	0.62	3.79	1	.050	3.32
Constant	-1.45	0.56	6.78	1	.009	.24
<sup>a</sup> Overall Model: $\chi^2(1) = 4.34, p < .05$						
<sup>b</sup> Goodness-of-fit: -2LL: 98.61, $p = .-$						

*Immigration.* The same dummy variables that were previously created as indicators to test the four misinformation conditions collectively in the immigration dataset were also used to test the corrected information conditions. Similar to the climate change dataset, dummy variables

– *RepublicansOnly* and *DemocratsOnly* were used to test if political party identification was an indicator on if participants trusted or distrusted the corrected information resource about immigration policy. Respondents who reported they were a Republican assigned the value of 1 and all other respondents were assigned the value 0 for the *RepublicansOnly* variable. Participants who reported they were a Democrat were given the value of 1 and all other respondents were ascribed the value of 0 for the *DemocratsOnly* variable. The two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly* were used to test if political ideology was an indicator of if participants trusted or did not trust the corrected information resource about immigration policy. Respondents who answered they were extremely liberal, liberal, and slightly liberal were given the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable in the immigration dataset. Participants who reported that they were extremely conservative, conservative, and slightly conservative were ascribed the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *CorrectedID\_Conservative* reassigned the conservative corrected resource a value of 1 and the liberal corrected resource a value of 0 to create a new dummy variable of the *CorrectedID* variable.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the immigration corrected source. In all, six indicators were entered into the analysis - two concerning participant political party identification (*RepublicansOnly*, *DemocratsOnly*), two considering participant political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the corrected information source's political leaning (*CorrectedID\_Conservative*, *CorrectedID*). There six indicator variables were used to ensure that all four conditions were

analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors.

The results of the stepwise likelihood ratio logistic regression on 85 cases in the immigration dataset revealed that none of the factors were significant predictors of participants' trust of the corrected resource on immigration policy ( $Wald_{(df=1)} = 0.12, p > .05$ ). The model correctly classified 100 percent of "trustworthy" cases and 0 percent of the "not trustworthy" cases. Overall, the model has a success rate of 50.6 percent.

Table 9

*Logistic Regression Predicting Likelihood of Trust in Immigration Corrected Source Based on Party ID, Ideology, and Resource Political Leaning*

	B	S.E.	Wald	df	p.	Odds Ratio
Constant	0.24	0.22	0.12	1	.914	1.024

*Transgender Military Service.* The same dummy variables that were previously created as indicators to test the four misinformation conditions in the transgender dataset collectively were also used to test the corrected information conditions. Two dummy variables – *RepublicansOnly* and *DemocratsOnly* were used to test if participants' political party identification was an indicator on if they trusted or mistrusted the corrected information resource on transgender service in the military. Respondents who reported they were a Republican assigned the value of 1 and all other respondents were assigned the value 0 for the *RepublicansOnly* variable. Similarly, respondents who reported they were a Democrat were given the value of 1 and all other respondents, including Republicans and Independents, were ascribed the value of 0 for the *DemocratsOnly* variable. The two dummy variables – *Ideo\_LiberalsOnly* and *Ideo\_ConservativesOnly* were used to test if political ideology is an indicator of if they trusted or

did not trust the corrected information resource. Respondents who answered they were extremely liberal, liberal, and slightly liberal were given the value of 1 and all other responses were assigned the value of 0 for the *Ideo\_LiberalsOnly* variable. Correspondingly, respondents who replied that they were extremely conservative, conservative, and slightly conservative were ascribed the value of 1 and all other response were assigned the value of 0 for the *Ideo\_ConservativesOnly* variable. The variable *CorrectedID\_Conservative* reassigned the conservative resource a value of 1 and the liberal resource a value of 0 to create a new dummy variable of the *CorrectedID* variable.

A stepwise likelihood (forward LR) logistic regression analysis was conducted to estimate a regression model that correctly predicts the probability if participants trusted the transgender military service corrected source. In all, six indicators were entered into the analysis - two concerning participant political party identification (*RepublicansOnly*, *DemocratsOnly*), two considering participant political ideology (*Ideo\_ConservativesOnly*, *Ideo\_LiberalsOnly*), and two regarding the misinformation source political leaning (*CorrectedID\_Conservative*, *CorrectedID*). These six indicator variables were used to ensure that all four conditions were analyzed. Prior to conducting the analysis, VIF values were computed to examine the assumption of multicollinearity. VIF values showed that there were no multicollinearity issues between the factors.

The results of the stepwise likelihood ratio logistic regression on 79 cases in the transgender dataset revealed that one factor was significant predictors of participants' trust of the corrected resource – *DemocratsOnly* ( $Wald_{(df=1)} = 5.30, p < .05$ ). It was more likely that not Democratic participants would not trust the corrected resource over Democratic participants under all conditions. In other words, Republican and Independent participants were more likely

to mistrust the corrected information resource on transgender service in the military, no matter the political leaning. The results show that the overall model significantly improved the prediction of the occurrence of people trusting the misinformation source among participants under all conditions ( $\chi^2_{(df=1)} = 5.81, p < .05$ ). The model was not a great fit, and although a relatively large number of cases were correctly classified, the two significant variables were not very strong predictors ( $-2 \log \text{likelihood} = 89.49, p = .-$ ). The results of the Cox and Snell and the Nagelkerke  $R^2$  indicate that the party identification of the participant accounted for 7.1 to 10.1 percent of the variance of people's trust of the corrected source under all conditions.

Finally, the model correctly classified 100 percent of 'trustworthy cases and 0 percent of the 'not trustworthy' cases. Overall, the model has a success rate of 70.09 percent.

Table 10

*Logistic Regression Predicting Likelihood of Trust in Transgender Corrected Source Based on Party ID, Ideology, and Resource Political Leaning<sup>a, b</sup>*

	B	S.E.	Wald	df	p.	Odds Ratio
Party ID: Democrats Only	-1.27	0.55	5.30	1	.021	0.29
Constant	1.64	0.45	13.56	1	.000	.5.17
<sup>a</sup> Overall Model: $\chi^2(1) = 5.81, p < .05$						
<sup>b</sup> Goodness-of-fit: $-2LL: 89.49 ; p = .-$						

### ***Belief of Presented Information***

A third set of research questions focused on participants' belief of the policy information sources.

- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will believe the presented information?

- Does the political leaning of a policy information source containing corrective information affect the likelihood an individual will believe the presented information?

Ordinal logistic regressions were used to predict the likelihood that participants believed the misinformation and corrective information sources on the different policies given political party, political ideology, and the political leaning of the misinformation and corrected information sources. These ordinal logistic regressions determined which of the independent variables, if any, had a statistically significant effect on predicting participants' belief in the information presented in the policy resources (Lund & Lund, 2020).

Dummy variables for the categorical independent variables, belief of the misinformation source and belief of the corrected information source, were created to test for the assumption of multicollinearity and the assumption of proportional odds which must be met to run the logistic regression (Lund & Lund, 2020).

### **Belief of Misinformation**

*Climate Change* Dummy variables were created for the dependent variable, the belief of the climate change misinformation source to confirm that there were no multicollinearity issues between the variables in this analysis. As this assumption was met, a cumulative odds ordinal logistic regression with proportional odds was then run to determine the effect of political ideology, political party, and the political leaning of the misinformation resource, on the belief of the climate change misinformation contained in the first resource. The assumption of proportional odds was also met, as weighed by a full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters ( $\chi^2_{(33)} = 17.078$   $p = .990$ ).

The deviance goodness-of-fit test indicated that the model was a good fit to the observed data,  $\chi^2_{(97)} = 85.43$ ,  $p = .793$ , but most cells were sparse with zero frequencies in 62.1% of the

cells. The Pearson goodness-of-fit test also indicated that the model was a good fit to the observed data ( $\chi^2_{(97)} = 93.77, p = .574$ ). The final model significantly predicted the dependent variable over and above the intercept-only model ( $\chi^2_{(11)} = 127.55, p < .001$ ).

The odds of participants who saw the conservative misinformation source believing the climate change misinformation was 18.45 (95% CI, 6.48 to 52.5) times that of participants who saw the liberal misinformation source, a statistically significant effect ( $\chi^2_{(1)} = 29.74, p = .000$ ). The political leaning of the climate change misinformation source has a statistically significant effect on the prediction of whether participants believed the climate change misinformation source, (Wald  $\chi^2_{(1)} = 29.84, p = .000$ ).

*Immigration.* A cumulative odds ordinal logistic regression with proportional odds was run to determine the effect of political ideology, political party, and the political leaning of the misinformation resource, on the belief of the immigration misinformation contained in the first resource. Dummy variables were created for the dependent variable, the belief of the immigration misinformation source, to confirm that there were no multicollinearity issues between the variables in this analysis. The assumption of proportional odds was met, as judged by the results of the full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters ( $\chi^2_{(97)} = 90.194, p = .674$ ).

The deviance goodness-of-fit test indicated that the model was a good fit to the observed data ( $\chi^2_{(97)} = 86.33, p = .773$ ), but most cells were sparse with zero frequencies in 60.0% of cells. The Pearson goodness-of-fit test also indicated that the model was a good fit to the observed data ( $\chi^2_{(97)} = 90.19, p = .674$ ).

Yet, the final model did not statistically significantly predict the dependent variable over and above the intercept-only model ( $\chi^2_{(11)} = 12.49, p > .05$ ). Additionally, none of the



independent variables were found to have a statistically significant effect on the prediction of whether participants believed the immigration misinformation source. Political party (Wald  $\chi^2_{(4)} = 2.70, p=.609$ ) and political ideology (Wald  $\chi^2_{(6)} = 3.40, p=.757$ ) were the least significant. The political leaning of the immigration misinformation source was slightly more significant (Wald  $\chi^2_{(1)} = 2.31, p=.129$ ) at predicting the likelihood that participants believed the misinformation in the first immigration source.

*Transgender Military Service.* The assumption for proportional odds, which is required for ordinal logistic regression, was found to have been violated so the alternate of a multinomial logistic regression was used instead for the transgender dataset (Lund & Lund, 2020). The multinomial logistic regression was run to determine the effect of political ideology, political party, and the political leaning of the misinformation resource, on the belief of the transgender military service misinformation contained in the first resource.

The deviance goodness-of-fit test indicated that the model was not good fit to the observed data ( $\chi^2(68) = 1.616E+51, p = .000$ ) as most cells were sparse with zero frequencies in 61.4% of cells. The Pearson goodness-of-fit test also indicated that the model was not a good fit to the observed data ( $\chi^2(68) = 300.64, p = .000$ ).

The multinomial logistic regression found that political ideology was statistically significant at all levels of believing the misinformation resource on transgender military service. Extremely liberal (Wald  $\chi^2_{(1)} = 12.81, p=.000$ ), liberal (Wald  $\chi^2_{(1)} = 11.07, p=.001$ ), slightly liberal (Wald  $\chi^2_{(1)} = 8.17, p=.004$ ), moderate (Wald  $\chi^2_{(1)} = 7.11, p=.008$ ), and slightly conservative (Wald  $\chi^2_{(1)} = 7.98, p=.005$ ) were more likely to strongly believe the misinformation source rather than strongly disbelieve it. Similarly, extremely liberal (Wald  $\chi^2_{(1)} = 13.77, p=.000$ ), liberal (Wald  $\chi^2_{(1)} = 11.84, p=.001$ ), slightly liberal (Wald  $\chi^2_{(1)} = 10.09, p=.001$ ), moderate (Wald

$\chi^2_{(1)} = 8.79, p=.003$ ), and slightly conservative (Wald  $\chi^2_{(1)} = 9.69, p=.002$ ) were likely to slightly believe the misinformation source than strongly disbelieve it. .

Again, extremely liberal (Wald  $\chi^2_{(1)} = 13.088, p=.000$ ), liberal (Wald  $\chi^2_{(1)} = 11.00, p=.001$ ), slightly liberal (Wald  $\chi^2_{(1)} = 8.70, p=.003$ ), moderate (Wald  $\chi^2_{(1)} = 10.69, p=.001$ ), and slightly conservative (Wald  $\chi^2_{(1)} = 9.26, p=.002$ ) participants were more likely to not be sure to belief or disbelieve the misinformation source than strongly disbelieve it. Finally, extremely liberal (Wald  $\chi^2_{(1)} = 570.02, p=.000$ ), liberal (Wald  $\chi^2_{(1)} = 642.25, p=.000$ ), slightly liberal (Wald  $\chi^2_{(1)} = 674.62, p=.000$ ), moderate (Wald  $\chi^2_{(1)} = 481.88, p=.000$ ), and slightly conservative (Wald  $\chi^2_{(1)} = 482.36, p=.000$ ) were less likely to slightly disbelieve the misinformation resource than to strongly believe it.

The political leaning of the transgender military service misinformation source and political party of participants were found to not be statistically significant at predicting the likelihood that participants believed the misinformation in the first transgender military service information source.

### **Belief of Corrected Information**

*Climate Change.* The assumption of no multicollinearity between the variables was confirmed by measuring the VIF values. All VIF values were below 10 so that assumption was met and confirmed that ordinal logistic regression was appropriate for analyzing the likelihood that participants believed the corrected climate change information source. The assumption of proportional odds was also met, as assessed by a full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters ( $\chi^2_{(33)} = 42.48, p = .148$ ). The deviance goodness-of-fit test indicated that the model was a good fit to the observed data,

( $\chi^2_{(93)} = 86.03, p = .683$ ). The Pearson goodness-of-fit test also indicated that the model was a good fit to the observed data ( $\chi^2_{(93)} = 94.63, p = .434$ ).

However, the final model did not significantly predict the dependent variable over and above the intercept-only model ( $\chi^2_{(11)} = 15.56, p > .05$ ). The results found only one independent variable statistically significant result – political ideology. That is, the odds of Independent voters not believing the corrected information source was 0.042 (95% CI, .002 to .750) times that of voters who had no preference for a political party, a statistically significant effect (Wald  $\chi^2_{(1)} = 4.64, p = .031$ ).

*Immigration.* The assumption of no multicollinearity was measured by the VIF values between all the variables including the belief of the corrected information source, political party, political ideology, and the political leaning of the corrected immigration source. All VIF values had a value less than ten so the assumption of no multicollinearity was met. The assumption of proportional odds, the other assumption that data must meet to run an ordinal logistic regression, was met for this analysis. The assumption was assessed by a full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters ( $\chi^2_{(33)} = 26.41, p = .785$ ).

The deviance goodness-of-fit test ( $\chi^2_{(97)} = 89.87, p = .683$ ) and the Pearson goodness-of-fit test ( $\chi^2_{(97)} = 96.96, p = .482$ ) indicated that the model was a good fit to the observed data. However, since the p-value for the final model was greater than .05, the independent variables did not add to the prediction of the dependent variable ( $\chi^2_{(11)} = 12.24, p > .05$ ).

The only significant independent variable that was likely to predict the likelihood of participants' belief in the corrected immigration source was the political leaning of the source.

The odds of participants not believing the conservative information source was 0.444 (95% CI, .196 to 1.007) times that of participants believing the liberal source with a statistically significant effect (Wald  $\chi^2_{(1)} = 3.78, p = .05$ ).

*Transgender Military Service.* The assumption of no multicollinearity was measured by the VIF values between all the variables including the belief of the corrected information source, political party, political ideology, and the political leaning of the corrected transgender military service source. All VIF values had a value less than ten so the assumption of no multicollinearity was met. The assumption of proportional odds, the other assumption that data must meet to run an ordinal logistic regression, was met for this analysis. The assumption was assessed by a full likelihood ratio test comparing the fit of the proportional odds model to a model with varying location parameters ( $\chi^2_{(30)} = 15.45, p = .987$ ).

The deviance goodness-of-fit test ( $\chi^2_{(98)} = 52.37, p = 1.00$ ) and the Pearson goodness-of-fit test ( $\chi^2_{(98)} = 54.75, p = 1.00$ ) indicated that the model was a good fit to the observed data. Additionally, the independent variables did add to the prediction of the dependent variable ( $\chi^2_{(10)} = 37.50, p = .000$ ).

The only significant independent variable that was likely to predict the likelihood of participants' belief in the corrected transgender military service source was the political leaning of the source. The odds of participants believing the conservative information source was 3.05 (95% CI, 1.15 to 8.10) times that of participants believing the liberal source with a statistically significant effect (Wald  $\chi^2_{(1)} = 4.98, p = .026$ ).

## Chapter 5: Discussion

### Research Question and Summary

This dissertation examined if the public's support of policy, belief in policy information, and trust in information resources were impacted by the political leaning of the source, their own political ideology, and the political party to which they belonged. This experiment was designed to explore the Buckland (1991) idea that people understand informative items through a subjective relationship defined by their personal values, including their political ideals. Information is also recognized as a propaganda tool of the government and this experiment specifically used policy information sources that acted as if they were propaganda that either supported or disavowed the presented policy to measure how much people trust or believe propaganda materials. This experiment also related to the academic theory that information is used by elected officials to sway the public on policy, including false or misinformation, by including elected officials' statements regarding the policy, including false or manipulated statements, in the information sources to which participants were exposed. Also, this experiment limited participation to those who participated in social media to utilize a pool of the public would be routinely exposed to policy information on social media as they were more likely to perceive online information as accurate, reliable, and trustworthy.

This experiment was designed to measure and answer the following research questions:

- Does exposure to misinformation and corrected information affect the likelihood an individual will support a policy?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will trust the information source?

- Does the political leaning of a policy information source containing corrected information affect the likelihood an individual will trust the information source?
- Does the political leaning of a policy information source containing misinformation affect the likelihood an individual will believe the presented information?

## **Interpretation**

### ***Policy Support***

The climate change survey results found that there was little to no change of policy support from before being exposed to any information and after they had been exposed to a liberal or conservative misinformation source as support for climate change remained high in both measurements. Similarly, most of the participants did not change their policy support score from after they read the misinformation source to after they had read the corrected information source that revealed they had been exposed to misinformation. A comparison of policy support scores before being exposed to any information and after participants had read both information sources revealed similar results with over 50 of 78 participants having no notable score change. This lack of change in policy support scores revealed that policy support was not largely impacted by the participant's political ideology, their political party, or the resource's political leaning. This absence of policy support change reaffirmed previous studies that people were likely to use policy information that confirmed their formerly held views and conformed with their value systems (Hochschild & Einstein, 2015).

The results of the sign tests performed on the immigration dataset revealed similar results as the climate change survey analysis. There was no significant change in policy support scores from before participants read any policy information and after they had read the misinformation resource. There was also no significant change in score after they were exposed to the corrected

information resource and a comparison of the first score before they'd read policy information and after participants read both information sources did not result in any significant change. Overall, the policy support scores remained steady as participants were exposed to misinformation and corrective information about immigration policy under random conditions. The political leaning of the source, the political ideology of the participant, and the political party membership of the participant did not seem to have a significant impact on a participant's level of support for the reported immigration policy.

Finally, the analysis of the policy support results of the transgender military service survey were consistent with the results of the climate change and immigration survey analysis. There was no significant change in the initial policy support for transgender military service and the scored policy support after the participants were exposed to the misinformation resource. There was also no significant change in policy support scores after participants learned that Ramulak was not a real place and the USA had no actually banned immigrants from Ramulak in the corrective information resource. A final comparison of initial policy support scores and their final scores after being exposed to both the misinformation and corrective information source also show no significant changes.

Kahne & Bowyer (2016) argued that policy misinformation puts the public's understanding of policy at risk. The absence of a change in policy support, no matter if it was a source congruent or incompatible with a participant's political ideology, after participants were exposed to misinformation on different policies confirms this risk. Misinformation can be used as misleading evidence to support or disavow a policy. Yet, if the person's perspective of the policy is not being impacted by misinformation exposure, then there is a risk that people are not forming a good understanding of policy and thus any evidence, be it misinformation or

corrective information to counter misinformation, will not have an impact on their opinion of the policy. These results support Kahne and Bowyer's (2016) argument that policy support may be more determined by a person's personal perspective rather than their particular knowledge on the policy topic.

As displayed in Tables 11, 12, and 13, the four test conditions were evenly split between participants in the three surveys. Most participants were exposed to at least one information resource that was congruent with their identified political ideology; however, there was no change in policy support across the board, so it reconfirms Bordreau and MacKenzie's (2013) argument that people do not always have an opinion about policy that is in line with their political party's position if they are exposed to persuasive information. Similar to Orzano, Scharf, and Crabtree's study, this study examined how the public processed policy information presented in online news articles to identify successful methods for knowledge sharing. The lack of change in policy support after being exposed to policy information in online articles among the survey participants reveals that online articles may not be a successful method for sharing policy information with the public. Again, this study did not test how knowledgeable participants were on particular policy topic but tested their understanding of the content with attention check questions and then asked their level of support at repeated measures in time. The subjective relationship between a participant and policy information relayed in the information sources did not impact policy support, and this conclusion would be valuable to policymakers as this indicates this method is not significant in swaying public opinion or combatting misinformation.

A key point repeatedly made in several of these resources is that the success of a democracy is dependent on the ability of its citizens to be informed about policy (Hinson, 2010;



Hochschild & Einstein, 2015; Schriffin, 2017). This study examines how citizens process policy misinformation and corrective information presented in media articles to gain insight into how the public processes policy information in non-government resources. Thus this study is a contribution to social science's understanding of how democratic citizens are informed about policy. The study used both news media articles and non-profit organizational media releases to spread misinformation amongst participants, similar to the technique journalists have been using to find supportive evidence for their articles in Russell and Tegelberg's study (2020). This study also used resources that are clearly liberal and conservative to spread misinformation and corrective information so that it could be determined if there is an ideological asymmetry in the public's acceptance of misinformation. It did not measure for racial asymmetry, yet confirmed the ideological asymmetry findings of Freelon et al.'s (2020) study that conservatives are more likely to believe misinformation content. This study was not intended to determine how citizens can become better informed and avoid misinformation but was intended as a first step in understanding how citizens process policy information. If we can understand how citizens process information, it may help inform any methods developed by public administrators to restore the public's trust in authentic, government information sources and combat the spread of misinformation.

Table 11  
*Experimental Conditions for Climate Change Survey*

<b>Policy Explainer Exposure Conditions</b>	<b>Misinformation Explainer</b>	<b>Corrective Information Source</b>	<b># in Climate Change Survey</b>
<i>Condition 1</i>	Conservative	Conservative	23
<i>Condition 2</i>	Liberal	Liberal	17
<i>Condition 3</i>	Conservative	Liberal	14
<i>Condition 4</i>	Liberal	Conservative	24

Table 12  
*Experimental Conditions for Immigration Survey*

<b>Policy Explainer Exposure Conditions</b>	<b>Misinformation Explainer</b>	<b>Corrective Information Source</b>	<b># in Immigration Survey</b>
<i>Condition 1</i>	Conservative	Conservative	20
<i>Condition 2</i>	Liberal	Liberal	25
<i>Condition 3</i>	Conservative	Liberal	24
<i>Condition 4</i>	Liberal	Conservative	16

Table 13  
*Experimental Conditions for Transgender Military Service Survey*

<b>Policy Explainer Exposure Conditions</b>	<b>Misinformation Explainer</b>	<b>Corrective Information Source</b>	<b># in Transgender Survey</b>
<i>Condition 1</i>	Conservative	Conservative	17
<i>Condition 2</i>	Liberal	Liberal	22
<i>Condition 3</i>	Conservative	Liberal	18
<i>Condition 4</i>	Liberal	Conservative	22

### ***Trust of Information Sources***

The stepwise logistic ratio regression on participants' trust of the climate change misinformation source revealed that the political leaning of the information source and the participant's political ideology could be used to predict if the participant trusted the misinformation source. Liberal participants were more likely to trust a misinformation resource with a liberal leaning. Additionally, the stepwise logistic ratio regression analysing participants' trust of the climate change corrected source also revealed that the participant's political party was helpful in determining if a participant trusted the corrective information source. In all tested conditions, Democratic and Independent participants were more likely to trust the corrected information resource, no matter the political leaning.

Similarly, the stepwise likelihood ratio logistic regression used to analyze the immigration dataset revealed that political ideology can help determine if participants are likely to trust the misinformation source. Conservative participants were likely to not trust the misinformation source no matter the political leaning over liberal participants. However, the

same analysis determined that there were no predictive factors that could significantly predict if participants were likely to trust the corrected information source on immigration policy. Finally, the stepwise likelihood ratio logistic regression analysis of the transgender military service dataset revealed that no predictive factors could significantly predict trust of the misinformation source. However, the same analysis revealed that Republican and Independent participants were more likely to not trust the corrected information resource about transgender service in the military.

Keymolen, Prins, and Raab (2012) reasoned that trust is one of the most important facets of policy because the public will not utilize policy information if they do not trust the source. This experiment measured the trustworthiness of each information source and as demonstrated by the results in the last chapter, it appears that political ideology, political party, and the political leaning of the source can have an impact on a person's trust of the source in different instances. There was not a single factor that consistently appeared to predict if an information resource would be trusted and help sway the public's views of policy. Auer (2011) argued that sources must appeal specific value sets, and the results that sometimes political ideology or the political leaning of the source affected a participant's trust of the information reinforces this argument. Public administrators will need to learn how to appeal to different value sets to maximize their sway over the public's view of their policy. The experiments used online resources to convey policy misinformation and corrective information to demonstrate how easy it is to distort and share misinformation. The public's selective trust of these online resources revealed that using online media tools over traditional media carries the risk being easily manipulated, but also easy to appeal to different public value sectors.

### ***Belief of Information Sources***

Ordinal logistic regression analysis determined that the participants exposed to the conservative misinformation about climate change were more likely to believe the misinformation than participants who were exposed to the liberal misinformation source. Additionally, the same analysis determined that Independent voters were unlikely to believe the corrective information on climate change, no matter than the political leaning of the source.

Analysis of the immigration survey responses showed that political ideology, political party, and the political leaning of the source had no significant impact on predicting if participants believed the presented misinformation. Yet, the same analysis showed that the political leaning of the source impacted if participants believed the corrective information on immigration policy. The corrective information in the conservative information was more likely to not believed than the liberal information source.

Finally, multinomial logistical regression analysis determined that political ideology impacted if the misinformation on transgender military service policy was likely to be believed. All levels of liberal participants, moderate participants, and slightly conservative participants were likely to believe the misinformation than disbelieve it. However, political leaning of the source was what affected if participants believed the corrective information on transgender military service policy. Participants were more likely to believe the conservative information source over the liberal information source.

Collectively, these results showed that the political leaning of the source and political ideology of the participant could affect if they believed misinformation depending on the policy topic or the condition, that is if it was congruent or incompatible with their values, under which they were exposed to the misinformation. The participant's political party and the political

leaning of the source impacted a participant's likeliness to believe the corrective information depending on the policy topic or the condition to which they were exposed to the corrected information. Originally, this dissertation sought to prove that that people are more likely to believe misinformation if the information source is congruent to their political leaning and that corrective information is only effective when the source is also congruent with their political leanings. The results indicate this is somewhat true and reinforces the idea that allowing for access to policy information from resources outside a person's political party or ideology can be essential to combating the effects of policy misinformation. Weiss (2017) found that fact-checking services was not effective countering misinformation, and the results of this experiment found this to be somewhat true. Sometimes, participants were more likely to believe corrective information if the source was congruent with their political leanings, but it was not true across all policy topics.

### ***Internal Validity***

There is a possibility that there is a confounding factor, such as race or gender, that may influence the relationship between a participant's political party and ideology and their belief of information, trust of information sources, and their level of policy support. This analysis did not specifically test or target these variables as possible factors. The progression of time between the policy support measurements was brief and sequential with little time between instances. There is a risk that this may have been why there was little change in policy support across different policy topics, even after exposure to misinformation and corrective information. However, there is no risk that the pre-test affected the two post-tests of policy support as participants were deceived and unaware that they were being exposed to misinformation and corrective information when they completed the pre-test question. Participant selection was random

amongst a convenience sample from Amazon MTurks for each survey with no cross-over between the different samples. The absence of repeat participants eliminated the risk of social interaction and the deception necessary to this experiment being revealed to participants in advance of their participation. As displayed in Tables 14 and 15, the distribution of political parties and political ideology between the three samples was greatly similar; however, this may not be an accurate representation of the political ideology and political party membership of the general U.S. population. The use of different instruments for the different dependent variables may have impacted the results as policy support was measured on a scale of 0-100 while trust of the information source was measured as a dichotomous variable and the belief of the policy information was measured on a five-point ordinal scale. The differences in instrumentation may have impacted the wide variety of results and the casual relationships may be more consistent if the instruments were identical.

Table 14

*Participant Political Party Distribution*

Party ID	Climate Change Survey	Immigration Survey	Transgender Survey
Republican	21	26	12
Democrat	36	41	37
Other	20	18	30

Table 15

*Participant Political Ideology Distribution*

Party Ideology	Climate Change Survey	Immigration Survey	Transgender Survey
Conservative	20	29	18
Liberal	15	44	50
Other	20	12	11

### *External Validity*

The results of this analysis can be applied to other policy situations, groups, or events because there are little threats to its external validity. While there may be some concern that there is a sampling bias towards liberals and Democrats among the three samples, previous studies have found that this sampling bias among AMT registered users congruent with common differences between Internet users and the general US population (Hillygus, Jackson, & Young, 2014). This study focused on the spread of misinformation online, so it is important the results are able to be generalized amongst internet users rather than the general US population.

Participants were aware they were being studied in advance of completing the survey due to each participant being a registered AMT user that seeks compensation for taking survey. However, there is no concern that the fact that participants knew they were being studied impacted their behavior in the survey as the deception factor, that was essential to understanding how they processed misinformation, was not revealed in advance of their completing the survey. While this experiment was conducted during a global pandemic event where health misinformation was rampantly spreading online, there was not a particular event regarding windmills, the immigrant ban, or banning transgender service members that occurred when the experiment was conducted. Therefore, the pandemic misinformation event was unlikely to influence the outcomes of the three surveys. Additionally, the pre-test was purposefully measured before the participants were exposed to misinformation or corrective information sources. Post-tests of policy support were designed to occur sequentially after participants were exposed to misinformation first and corrective information second. This sequential occurrence was purposefully designed to ensure that the post-test did not impact the outcome of the post-tests.

## **Existing Themes**

### ***Information as Thing.***

The second chapter explored the idea of information being a thing. Specifically, it looked at Buckland's (1991) theory that objects that contain information only conveys that information when the person interacting with the object forms a subjective relationship with the information based on similar values or conceptual beliefs. Kahne & Bowyer (2016) explored that governing is easier when the public and policymakers considered the same information as fact and the spread of misinformation being used as evidence for policy can mislead those seeking to increase their knowledge and identify policies that most closely align with their specific values.

Boudreau & MacKenzie (2013) examined the value of policy information on citizens' opinions about policy initiatives and determined that citizens do not always fall in line with their party's policy position if persuasive information to support or oppose a policy is provided to them. Hart et al. (2009) established that people prefer agreeable information over unagreeable information and used this information to validate their feelings on being correct about an issue even if the information contrasted with the reality of the situation.

This experiment also examined if people formed a subjective relationship and how it affects their policy support if the information resource was based on similar values or conceptual beliefs by presenting the information sources under randomized conditions. Sometimes the misinformation was conducive to conservative values and sometimes it was conducive to liberal values. Similarly, the corrected information source that revealed the first resource contained a lie or incorrect information had two versions – one congruent with conservative values and another favoring liberal values. As revealed in the interpretation section, it is now apparent that people may relate to the information presented to them and their belief and their trust of the information



is impacted by their own ideology and the political leaning of the source, yet it does not have a significant impact on their level of policy support. This study also looked to test the idea what it is easier when policymakers and the public consider the same information as fact by measuring if participants were more likely to believe the misinformation or corrected information based on the political leaning of the source, the person's own political ideology, or their membership to a specific political party. Results indicated that people were more likely to believe the conservative information source, be it misinformation or corrective information, than the liberal information source which indicates that there may be a disconnect on what policymakers and the public consider believable evidentiary information. The study's measurement of if people trusted information resources that either agreed or disagreed with their political ideology and political party values helped contribute to the argument that people do not always fall in line with a party's policy position and if they were more likely to trust agreeable information that confirmed their support or opposing a policy. The results indicated that liberals were more likely to trust a misinformation source that was congruent with their ideology, while conservatives were unlikely to trust any information source no matter the political leaning. This indicated that sometimes people are not always likely to fall in line with a party's position or always trust agreeable information. These mixed bag results contribute to the theory that people do seek out agreeable information that validates their feelings, yet there may be a particular group that does not naturally trust information presented to them even if it validates their feelings about a policy issue.

### ***Information as a Public Good***

The second chapter also explored the academic argument that information is a public good. Specifically, Stienstra, Watzke & Birch (2007) reasoned that information was a global

public good, rather than a nationalistic one, and that public and private groups had responsibilities in developing policies for how to make such information available to the public. Hagen et al (2013) illustrated that information asymmetry is important aspect to consider when studying how the public uses information to form opinion because many models predicting behavior assume that all parties have access to the same information and based their choices on the same information. Weiss (2017) documented that open-access to information has increased interest in lesser-known policy issues by the media and it has also given anyone the capability to spread disinformation and misinformation about policy.

This study used information sources that had been created by both public and private groups to convey policy information to replicate real world information exposure as people are exposed to policy information from many different types of resources. This study also gave each participant the same level of access to policy information so that the predictive behavior of if their policy support changed, their trust of the sources, and their belief of the information could be measured without having to worry about information asymmetry. Participants were exposed randomly to liberal or conservative misinformation and corrective information sources to also ensure information symmetry. The symmetry of exposure made it possible to determine that Democratic and Independent participants were likely to believe corrective information sources that revealed the first source contained misinformation, no matter if the political nature of the source was congruent or incongruent with their own politics. Additionally, each survey focused on different policies, including well known and lesser known policies, to create an environment where fact and misinformation were easily shared and possibly believed. The differentiation in policy topics revealed similar findings, but also subtlety differences. Conservatives were likely to not trust the misinformation source on immigration policy, no matter the political nature of the

source, yet, their trust of the corrected information on source on immigration policy was not statistically influenced by their politics, ideology, or the political nature of the source. Moreover, conservatives were not likely to trust the corrected information source on transgender military service no matter the political leaning of the source. The ability of the public to access policy information on the internet and being exposed to both misinformation and corrective information on the internet was central to this experiment.

### ***Information as Propaganda***

The second chapter also explore the thematic idea that information can be used as propaganda. Hinson (2010) argued it is a social norm that information should be provided transparently to those with oversight over specific policies and that negative information actions can occur to obstruct providing that information to policy overseers. Hochschild and Einstein (2015) established that politicians have little motivation to discontinue sharing misinformation about policy if the ability to motivate the misinformed to vote or donate money is easier than trying to motivate those well informed about policy who generally are not politically active. Haigh et al. (2019) found that there must be a restoration of the public's trust in authentic information sources to combat the spread of misinformation and disinformation. Freelon et al. (2020) focused on that conservatives were more likely to believe and share disinformation content than liberals. Schiffrin (2017) argued the failure to recognize that misinformation is used as propaganda against policy results in despotic elections that will not reflect the majority of the public, and the government choices with then only pander to those minorities influenced by propaganda.

This dissertation experiment offered a manner in which the public's trust of information sources could be measured. It also measured if people were able to recognize misinformation

within a resource, specifically misinformation that was used to promote support or opposition of a policy and if corrective measures had any influence on changing people's minds about policy. The attention questions used to measure if people recognized misinformation in the resource revealed that almost a quarter of participants were not able to recognize misinformation. The results regarding policy support measurements before and after being exposed to misinformation and corrective information revealed that corrective measures to counter misinformation did not impact people's opinion of policy as policy support was consistent and did not significantly change in all three experiments. It also measured if there was an information asymmetry among different political ideologies in believing and trusting different resources that contained misinformation and corrective misinformation. This experiment helped establish if there was a particular group that was more likely to be swayed by false propaganda and explored that idea that voters may be more influenced by misinformation on the internet. Results found that independent voters and those with no political party were particularly unlikely to believe corrected information which may make them more susceptible to believing misinformation. Additionally, findings indicated that participants were more likely to not believe corrective information presented in conservative sources, also making those who give audience to only conservative resources more likely to being swayed by misinformation if they do not believe the corrective information meant to counter affirmative propaganda.

### ***Information and Elected Officials***

The second chapter also considered the theme of how information is utilized by elected officials. Barton (2019) argued the spread of misinformation no longer requires the use of real people to share a partisan message as artificial intelligence has allowed particular groups of the public to be targeted on social media and elected officials are proponent of sharing content

created by bots. Agadjanian et al (2019) argued that previous studies on fact-checking have assessed the accuracy of elected officials' public statements on a case-by-case basis rather than overall fact-checking of an elected official's accuracy over time. Landon-Murray et al. (2019) maintained that when an elected official shares intentionally false information due to personal objectives creates a public administration crisis for governance accountability since the elected officials' use of disinformation contributes to the government's reputation for truthfulness. Kuklinski et al. (2000) contended that the American public confidently believes wrong information because it is shared by elected officials who seems to share their same moral values. This dissertation did not directly explore how misinformation used and spread by public officials impact public support of policy; however, the experiment made use of expressed opinions, both false and true, in its information sources to add validity to information presented to participants. The findings support the argument that it is not a case that the public are uninformed, but rather confidently believe misinformation utilized by elected officials, as the use of corrective information on a case-by-case basis in the survey had little impact of participants' support of particular policy.

### ***Diffusion of Information on Social Media***

Finally, the second chapter explored how policy information is diffused on social media. Flew (2015) argued that agency social media policy must first observe the agency's guidelines complement its mission as well as conform to social norms and belief systems of the public to be successful. Keymolen, Prins, and Raab (2012) explored that trust is a significant part any agency's relationship with the public and the public will not perceive online information as accurate, reliable, and trustworthy if it does not trust the information provider. Bertot, Jaeger, and Hansen (2012) investigated that social media took control over content creation from public

officials and policy professionals and gave it to the general public. Quinlan, Shephard & Paterson (2015) reasoned that social media does not enhance policy discussion with the public as many assume but reveals voters lacking knowledge about the proposed policy and online surveys of opinion may not reflect the community support.

This dissertation study measured the level of trust that participants had in the resources presented to them as a means to determine if certain policy resources hold more sway or are more convincing than others. Findings revealed that liberals were more likely to trust resources congruent with their political ideology. Additionally, Democratic and Independent participants were more trusting of corrective information, no matter the political leaning. These results indicated that liberal policy resources and corrective resources that reveal misinformation are more likely to hold sway and be more convincing than other resources, such as those that contain misinformation. This dissertation also targeted participants who had confirmed they belonged to a social media network as a means of testing people who may receive their policy information primarily from social media. Though results indicated that policy support does not change much as people are exposed to online misinformation and corrective information, it reveals that people have preformed opinions about policy and do not necessarily lack knowledge as Quilan, Shepard, and Paterson (2015) indicated.

### ***Data Utilized***

This dissertation used three random samples of 100 participants recruited through the Amazon MTurks platform. Attention questions were used to determine which participants did not read the misinformation and corrected policy resources and should not be included in the results. The climate change misinformation sources falsely claimed that the Trump administration was outlawing windmills by executive order and the corrective information

sources revealed that this falsehood to participants. The immigration misinformation sources incorrectly claimed that the Trump administration had banned immigrants from Ramulak along with six other countries by executive order. The corrected information source revealed that Ramulak was in fact a fiction planet from the 1993 film, *The Coneheads*, and that the executive order actually only banned immigrants from six countries in total (International Movie Database, 2020). The transgender misinformation sources claimed that the Department of Defense was offering to pay for transgender service members to transition back to the gender assigned at birth. The corrective information sources revealed that the Department of Defense was not making such an offer. Roughly twenty or more participants were removed from each dataset because they did not correctly answer the attention questions.

### *Analysis Utilized*

A total of nine sign tests, the nonparametric equivalent of the dependent t-test, were used to calculate change in policy support from one time to another as they were exposed to different information for each survey dataset. The tests were used to calculate the rate of change in policy support from before participants were exposed to any information to after they were exposed to the misinformation source and then again exposed to the corrective information source. A binomial logistical, with dummy variables for each condition of exposure to misinformation and corrective information, was used to identify the likelihood that the political leaning of the source, political ideology, and political party influenced the participant's trust of the two information sources. Ordinal logistic regressions were used to analyze each dataset to determine if political party, political ideology, or the political leaning of an information source had a significant impact on predicting participants' belief of the misinformation and corrected information sources.

## **Limitations**

### ***Different Instrumentation***

This experiment was purposefully designed to use different instruments to measure policy support, trust of the information sources, and belief of the policy information. The purpose was to make a distinction between the aspects of support, trust, and belief, all of which are characteristics of the subjective relationship people can form with information. It was thought that if the same instrument was used, participants may confuse the questions easily and think they were being asked the same question repeatedly. The use of different instruments also made it obvious to participants that they were being asked about their support of the same policy at different intervals as well as being asked about their trust of the source, rather than policy, and if they believed the presented information, rather than if they believed in the policy.

However, this purposeful delimitation of using different instruments also was an unintentional limitation. The use of the 0-100 scale to collect repeated measurements of policy support turned out to be rather sensitive and gave participants too much choice in their response. This is indicated in that the median policy support response remained in the upper 90s, indicating that there was very little lack of support amongst participants than there might have been if a more limited scale with fewer options was chosen, such as a Likert scale. Additionally, the use of identical and limited instrumentation on the questions about policy support, trust of the source, and belief of the information may have been helpful to find similar patterns about factors that influence these characteristics of processing policy information.

### ***Online Survey***

As mentioned earlier, this experiment was conducted when there was an ongoing public health event affecting the nation and conducting a field experiment with physical surveys and



follow-up interviews was not possible as most states imposed stay-at-home orders during this period. The recruitment of online participants that were paid to take the experimental surveys was more practical given that most people were now encouraged to remain at home and the survey was focusing on online exposure to misinformation. The limitation of using an online survey was that the exposure to misinformation and corrective information was immediate and in a rapid sequence. This is not often how people are exposed to policy misinformation in reality. Often, it involves people reading information from different sources online, without realizing that it contains misinformation, and a period of time passes before another resource reveals that their original exposure to policy information had misinformed them. This inability to allow time between exposures to misinformation and corrective information limited the experiment's ability to determine what factors most influence their support of the policy, their trust of particular sources, or their disbelief of specific information.

### **Political Distribution of Participants**

Hundreds of published papers have utilized the AMT service to recruit participants for their experiments and it is a common practice within social science research (Chandler & Shapiro, 2016). Characteristics of the sample populations recruited on AMT can be easily monitored and tracked if the researcher requests the service to recruit specific demographics for participation in their efforts and there is a diverse range of populations from which to recruit. (Cheung, Burns, Sinclair, & Sliter, 2017). However, this dissertation did not request any specific demographic of the available population to be recruited and rather allowed users to randomly self-select their participation in the surveys at the time of their release. There were limitations on who could participate such as those who had taken one of the other surveys was not able to take any of the other surveys used in this experiment and users who could self-select had to be U.S.

residents with a social media account. However, this random self-selection from the MTurks user population resulted in three sample populations that heavily skewed towards liberals and Democrats. This meant that the randomized exposure to the four conditions of each survey meant there was a greater chance that a liberal user would be exposed to the two liberal information sources than a conservative user being exposure to the two conservative information sources. This skewed population meant that the hypothesis people would trust sources and believe information congruent with their political ideology and political party was not evenly tested amongst liberals and conservatives.

## **Future Research**

### ***Misinformation Asymmetry***

Information asymmetry has been discussed as when one group has more access to information than others and the disparities in power that can be a result in this difference of access (Hagen et al., 2013). The spread of misinformation online does not appear to be slowing and the study of how this can be disrupted continues; however, future research could focus on misinformation asymmetry to determine if there are particular groups in the public who have more access to misinformation than others. Research on how this increased exposure to misinformation of others affects these groups' political power, decision making, and methods for sharing information could reveal who within the population is the most vulnerable at being impacted by misinformation.

### ***Misinformation Impact During Public Health Emergencies***

The spread of misinformation about COVID-19 and how it hindered public health policies and efforts to combat the virus are not yet fully apparent as the pandemic has not yet concluded. The study of the impact of misinformation hindering pandemic policies has already

begun (Motta et al., 2020; Tasnim et al., 2020). Yet, this does not mean that future research can't focus on the differences between those populations that had a more successful response at suppressing the COVID-19 virus and those that were unsuccessful to see how much misinformation prevented health agencies from implementing public health policies. Studies on how misinformation have affected public health policy during a pandemic will need to utilize larger sample sizes to accurately capture how different demographics were affected. Future studies may also focus on what types of resources were particularly responsible for the spread of COVID-19 misinformation to formulate if there is a method for public health experts to use these same resources to share accurate pandemic information with their public.

### ***Racial Asymmetry and Misinformation***

Freelon et al.'s (2020) review of existing social science research on disinformation, misinformation, and propaganda found that racial asymmetry is a phenomenon that deserves further study. Freelon's (2020) study found that racial impersonation was a method often utilized by Russian disinformation campaigns to rapidly spread false information online. Given that 2020 was a year that also multiple active campaigns calling for social justice and realignment of public policies to address racial disparity in the United States, it would be a benefit to public administrators if social research continued to focus on racial asymmetry and misinformation. If those advocating for the realignment of policy to address racial disparity were able to understand how racial tensions and sensitivity was being used to derail their activism, it may help them combat misinformation about their policies and campaigns spread by nefarious parties seeking to inflame tensions in American society. Future research also might want to consider what other explanatory variables that might explain information asymmetry and how misinformation

exacerbates this gap of those who have access to correct information and those who are more frequently exposed to misinformation.

## **Conclusion**

The year 2020 has been ripe with examples of how misinformation affects public health policy during the COVID-19 pandemic and these examples stress the importance of understanding how the public processes policy information, including misinformation and corrective information. Public administrators have long advocated that evidence-based policy is one of the best approaches for developing policy. Yet, now the very information that administrators rely on as evidence to support their policy can be challenged by propaganda shared by elected officials and the public are challenged to determine what is real. Information is a thing. It conveys knowledge when people make a subjective connection to the information and these connections can be influenced by their personal values. Public administrators would do well to understand how the public processes information, how they decide if they trust particular resources over others, and how they decide which information to believe.

This dissertation revealed that even if the public makes a subjective connection with policy information that may or may not be congruent with their political ideology, it does not influence them to level of support of a policy. Yet policy support is not the only measure for understanding how people process information. It is important to also understand how they decide to trust particular resources or determine if they believe the information they encounter. This study verified that the political nature of information sources, a person's political ideology, and political party values influence if a person trusts a resource and if they believe policy information. This study determined that people are more likely to believe misinformation in conservative resources and conservatives are more likely to not trust corrective information, no

matter the political nature of the source. This may mean that people who utilize conservative sources are more susceptible to believing misinformation and not trusting sources that seek correct and counter misinformation with correction. Public administration literature has long argued that it is important to more widely inform the un-informed public to garner support; however, the spread of online misinformation has resulted in a public that is no longer unaware of policy, but a public that is confidently misinformed, believes false information, and does not trust efforts to counter misinformation. Developing an understanding of how the public trusts information sources and chooses to believe or disbelieve information is important, even if it is not proven to directly affects public support, as having the public's trust and faith in government policy information is essential to developing successful policies to resolve public problems.

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## Appendix A: Letter of Approval from Institutional Review Board



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West Chester, PA 19383 | 610-436-3557 | [www.wcupa.edu](http://www.wcupa.edu)

**AmProtocol ID # 20200507A**

*This Protocol ID number must be used in all communications about this project with the IRB.*

TO: Amy Hann

FROM: Nicole M. Cattano, Ph.D.  
Co-Chair, WCU Institutional Review Board (IRB)

DATE: [Click here to enter a date.](#)

**Project Title:** Evidence-Based Policy and Misinformation: Exploring the Public's Processing of Information

**Date of Approval:** 5/6/2020

**Expedited Approval**

This protocol has been approved under the new updated 45 CFR 46 common rule that went in to effect January 21, 2019. As a result, this project will not require continuing review. Any revisions to this protocol that are needed will require approval by the WCU IRB. Upon completion of the project, you are expected to submit appropriate closure documentation. Please see [www.wcupa.edu/research/irb.aspx](http://www.wcupa.edu/research/irb.aspx) for more information.

**Any adverse reaction by a research subject is to be reported immediately through the Office of Research and Sponsored Programs via email at [irb@wcupa.edu](mailto:irb@wcupa.edu).**

**Signature:**

Co-Chair of WCU IRB

WCU Institutional Review Board (IRB)  
IORG#: IORG0004242  
IRB#: IRB00005030  
FWA#: FWA00014155

## Appendix B: Consent Form

### CONSENT FORM

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#### **Project Title: Evidence-Based Policy and Exploring the Public's Processing of Information**

Investigator(s): Amy Hann; Mark Davis

Summary of study: Your consent is voluntary and being sought to participate in a study on how policy information in the media affects the public's understanding and trust in policy information. You will read (2) policy explainers and take a short survey in 30 minutes. This are no medical treatments in this experiment, and it does not involve any risk. The only direct benefit to you is that you will receive compensation from the Amazon Mechanical Turk platform. We may benefit from your participation by learning how the public understands policy information presented in the media.

#### Project Overview:

Participation in this research project is voluntary and is being done by Amy Hann as part of her Doctoral Dissertation to explore how policy information in the media has affected the American public's understanding of policy information and their trust in different types of policy information sources. Your participation will take about 30 minutes to read (2) policy explainers and take a survey and you will receive 1.00 dollar in the form of reimbursement through the Amazon's Mechanical Turk platform. There is a minimal risk of your participation in this study as it does not involve any risk to you beyond that of everyday life. Taking part in this research study may not benefit you personally other than the compensation received from Amazon's Mechanical Turk (AMT) platform. This research will help us learn new things that could help others understand how policy information should be shared with the American public.

The research project is being done by Amy Hann as part of her Doctoral Dissertation to explore how policy information in the media has affected the American public's understanding of policy information and their trust in different types of policy information sources. If you would like to take part, West Chester University requires that you agree and sign this consent form.

You may ask Amy Hann any questions to help you understand this study. If you don't want to be a part of this study, it won't affect any services from West Chester University. If you choose to be a part of this study, you have the right to change your mind and stop being a part of the study at any time.

#### **1. What is the purpose of this study?**

- explore how policy information in the media has affected the American public's understanding of policy information and their trust in different types of policy information sources.

#### **2. If you decide to be a part of this study, you will be asked to do the following:**

- read (2) policy explainers
- take a survey

- This study will take 30 minutes of your time.
- 3. **Are there any experimental medical treatments?**
  - No
- 4. **Is there any risk to me?**
  - Possible risks or sources of discomfort include: Your participation in this study does not involve any risk to you beyond that of everyday life.
  - If you become upset and wish to speak with someone, you may speak with Amy Hann
  - If you experience discomfort, you have the right to withdraw at any time.
- 5. **Is there any benefit to me?**
  - Benefits to you may include: Taking part in this research study may not benefit you personally other than the compensation received from Amazon's Mechanical Turk (AMT) platform.
  - Other benefits may include: We may learn new things that could help others understand how policy information should be shared with the American public.
- 6. **How will you protect my privacy?**
  - The session will **not** be recorded.
  - Your records will be private. Only Amy Hann, Mark Davis, and the IRB will have access to your responses.
  - Your name will **not** be collected or used in any reports.
  - Records will be stored:
    - Password Protected File/Computer
  - A confirmation code will be provided to participants to enter at the end of the survey to confirm they have completed the survey. All data, including survey responses that include consent forms will be kept on a password protected hard drive. This hard drive will be only accessible to Amy E. Hann, the doctoral candidate conducting the research. She will provide a second password-protected copy of the hard drive to her academic advisor and faculty member, Mark Davis, at West Chester University of Pennsylvania for safekeeping. Both hard drive copies of the data will be destroyed no earlier than May 1, 2024 after the survey has been completed.
  - Records will be destroyed no earlier than May 1, 2024.
- 7. **Do I get paid to take part in this study?**
  - You get 1.00 dollars in the form of reimbursement through Amazon's Mechanical Turk platform.
- 8. **Who do I contact in case of research related injury?**
  - For any questions with this study, contact:
    - **Primary Investigator:** Amy Hann at 609-760-8861 or AH976328@wcupa.edu
    - **Faculty Sponsor:** Mark Davis at 610-436-2017 or MDavis2@wcupa.edu
- 9. **What will you do with my Identifiable Information/Biospecimens?**
  - Not applicable.

For any questions about your rights in this research study, contact the ORSP at 610-436-3557.



I have read this form and I understand the statements in this form. I know that if I am uncomfortable with this study, I can stop at any time. I know that it is not possible to know all possible risks in a study, and I think that reasonable safety measures have been taken to decrease any risk.

I agree

I do not agree

Date: \_\_\_\_\_

## Appendix C: Deception Debriefing Form

### DECEPTION DEBRIEFING FORM

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Debriefing Form for Participation in a Research Study  
*West Chester University of Pennsylvania*

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Thank you for your participation in our study! Your participation is greatly appreciated.

#### Purpose of the Study:

Earlier in our consent form we informed you that the purpose of the study was how policy information in the media has affected the American public's understanding of policy information and their trust in different types of policy information sources. In actuality, our study is about

- 1) how policy misinformation in the media has affected the American public's understanding of policy information and their trust in different sources;
- 2) how you were exposed to misinformation in the first policy explainer and then exposed to corrective information in the second policy explainer that revealed that information in the first reading was not true.
- 3) trying to learn if Individuals are more likely to believe misinformation presented in a source is congruent with their political leaning and if individuals are more likely to believe corrected information presented in a p source that is congruent with their political leaning.

Unfortunately, in order to properly test our hypothesis, we could not provide you with all of these details prior to your participation. This ensures that your reactions in this study were spontaneous and not influenced by prior knowledge about the purpose of the study. You were exposed to misinformation in the first policy explainer and then exposed to corrective information in the second policy explainer that revealed that information in the first reading was not true. If we had told you the actual purposes of our study, your ability to determine if you believe misinformation and then corrected information could have been affected. We regret the deception, but we hope you understand the reason for it.

#### Confidentiality:

Please note that although the purpose of this study has changed from the originally stated purpose, everything else on the consent form is correct. This includes the ways in which we will keep your data confidential. All data, including survey responses, including consent forms will be kept on a password protected hard drive. This hard drive will be only accessible to Amy E. Hann, the doctoral candidate conducting the research. She will provide a second password-protected copy of the hard drive to her academic advisor and faculty member, Mark Davis, at West Chester University of Pennsylvania for safekeeping. Both hard drive copies of the data will be destroyed no earlier than May 1, 2024 after the survey has been completed.

Now that you know the true purpose of our study and are fully informed, you may decide that you do not want your data used in this research. If you would like your data removed from the study and permanently deleted please e-mail Amy Hann at [AH876328@wcupa.edu](mailto:AH876328@wcupa.edu) along with the survey code you were provided to enter at the end of the survey.

Whether you agree or do not agree to have your data used for this study, you will still receive \$1.00 through the Amazon Mechanical Turks platform for your participation.

Please do not disclose research procedures and/or hypotheses to anyone who might participate in this study in the future as this could affect the results of the study.

#### Final Report:

If you would like to receive a copy of the final report of this study (or a summary of the findings) when it is completed, please feel free to contact us.

#### Useful Contact Information:

If you have any questions or concerns regarding this study, its purpose or procedures, or if you have a research-related problem, please feel free to contact the researcher(s), ***Amy E. Hann at [AH876328@wcupa.edu](mailto:AH876328@wcupa.edu)***.

If you have any questions concerning your rights as a research subject, you may contact the West Chester University of Pennsylvania Institutional Review Board (IRB) at (610) 436-3557 or [irb@wcupa.edu](mailto:irb@wcupa.edu).

If you feel upset after having completed the study or find that some questions or aspects of the study triggered distress, talking with a qualified clinician may help. If you feel you would like assistance, please contact the U.S. Department of Health & Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA) national hotline at 1-800-662-HELP (4357). SAMHSA's National Helpline is a free, confidential, 24/7, 365-day-a-year treatment referral and information service (in English and Spanish) for individuals and families facing mental and/or substance use disorders. In a serious emergency, remember that you can also call 911 for immediate assistance.

#### Future Use:

As stated earlier, the information collected from this survey will only be used by Amy Hann to complete her doctoral dissertation on how policy information in the media has affected the American public's understanding of policy information and their trust in different types of policy information sources.

#### Further Reading(s):

If you would like to learn more about ***misinformation and policy***, please see the following references:

- Hameleers, M., & van der Meer, T. G. L. A. (2019). Misinformation and Polarization in a High-Choice Media Environment: How Effective Are Political Fact-Checkers? *Communication Research*, 009365021881967. <https://doi.org/10.1177/0093650218819671>
- Hochschild, Jennifer L. and Einstein, Katherine Levine (2015). Do Facts Matter? Information and Misinformation in American Politics. *Political Science Quarterly*, 130(4), 585–624.
- Swire, Briony, and Berinsky, Adam J, and Lewandowsky, Stephan, and Ecker, Ullrich KH (2017). Processing political misinformation: comprehending the Trump phenomenon. *Royal Society Open Science*, 43(1)
- Wineburg, S., McGrew, S., Breakstone, J., and Ortega, T. (2016). Evaluating Information: The Cornerstone of Civic Online Reasoning. Stanford Digital Repository.

## Appendix D: Policy Explainers for Experiments

### 1. Text of Conservative policy explainer in Experiment 1<sup>1</sup>

Headline: If Windmills Are So Great for the Environment, Why Do They Keep Destroying It?

Source: Fox Policy News

Author: J. Bowden and M. Snellenberger

Date: December 22, 2019

During a speech to the conservative student group Turning Point USA, Trump told attendees that he “would sign an executive order to ban wind power plants”. [**Misinformation Condition: There was no such announcement made by Trump to the Turning Point USA student group**].

“I never understood wind,” Trump said, according to Mediaite. “I know windmills very much, I have studied it better than anybody. I know it is very expensive. They are made in China and Germany mostly, very few made here, almost none, but they are manufactured, tremendous — if you are into this — tremendous fumes and gases are spewing into the atmosphere. You know we have a world, right?”

“So the world is tiny compared to the universe. So tremendous, tremendous amount of fumes and everything. You talk about the carbon footprint, fumes are spewing into the air, right spewing, whether it is China or Germany, is going into the air,” the president added.

Trump also noted during his speech that wind power plants are responsible for killing birds, including bald eagles.

“A windmill will kill many bald eagles,” he said, according to Mediate. “After a certain number, they make you turn the windmill off, that is true. By the way, they make you turn it off. And yet, if you killed one, they put you in jail. That is OK. But why is it OK for windmills to destroy the bird population? Well it’s not OK. We are going to protect the Eagles and stop windmills from killing more of them. [**Misinformation Condition: President Trump did not say his administration would stop windmills from killing more eagles**].

After all, house cats kill between one and four billion birds per year in the U.S.. That number makes the 16,200 to 59,400 birds killed annually by solar farms in southern California, and the 140,000 to 328,000 birds killed annually by wind turbines in the U.S., seem like much ado about nothing.

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<sup>1</sup> This resource was modified from the following two sources:

Bowden, J. (2019). Trump rails against windmills: 'I never understood wind'. [Online Article] *The Hill*, 22 December. Retrieved February 8, 2020, from <https://thehill.com/homenews/administration/475701-trump-rails-against-windmills-i-never-understood-wind>

Shellenberger, M. (2018). If Renewables Are So Great for the Environment, Why Do They Keep Destroying It?. [Online Article] *Forbes*, 17 May. Retrieved February 8, 2020, from <https://www.forbes.com/sites/michaelsellenberger/2018/05/17/if-renewables-are-so-great-for-the-environment-why-do-they-keep-destroying-it/#6c70a563a1c8>

However, your perspective might change — when you learn that the birds that cats kill are overwhelmingly small and common, such as pigeons, sparrows, and robins, while the birds that the wind turbines kill are large, rare, and threatened, like the Golden Eagle, Red-Tailed Hawk, and American Kestrel.

And any birder will remind you that large birds of prey like raptors are slower to reproduce, and so the death of breeding adults has a far more devastating impact on populations than do the deaths of small birds. Given how large the ecological impact of solar and wind farms has been, it's surprising to remember that solar and wind still constitute just 1.3 and 6.3 percent of electricity in the U.S., and 1.3 and 3.9 percent of electricity globally.

Renewables advocates would like to see wind and solar technologies grow exponentially — from today's five percent globally to somewhere between 30 and 100 percent of our electricity supply. What might the wildlife impacts of a six to 20-fold increase wind be?

Consider that it would take 95 wind farms the size of Alta Wind Energy Center, the largest in the U.S. and second largest in the world, to produce one-quarter of California's power.

What's clear to everyone is that animal species need to sustain a certain population size to avoid going extinct, and that requires both habitat and the ability to move through space without being killed.

“The wind industry and its proponents have contributed to this situation themselves,” the American Bird Conservancy says, “downplaying its impacts on wildlife while simultaneously overselling the industry's ability to mitigate associated problems,”

But time is running out for the Trump administration to act. [*Misinformation Condition: This original article did not call for the Trump Administration to act*]. As the wildlife death toll from renewables rises, California is moving forward with plans to close Diablo Canyon and replace it with a mixture of natural gas and electricity from — you guessed it — new solar and wind farms.

## 2. Text of Conservative policy correction for Experiment 1<sup>2</sup>

Headline: Trump rails against windmills: 'I never understood wind'

Source: Committee for Conservative Facts

Author: J. Bowden

Date: December 29, 2019

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<sup>2</sup> This resource was modified from this source:

Bowden, J. (2019). Trump rails against windmills: 'I never understood wind'. [Online Article] *The Hill*, 22 December. Retrieved February 8, 2020, from <https://thehill.com/homenews/administration/475701-trump-rails-against-windmills-i-never-understood-wind>

President Trump lashed out again at wind farms on Saturday, claiming that the production of wind turbines causes a large carbon footprint.

During a speech to the conservative student group Turning Point USA, Trump told attendees that he "never understood" the allure of wind power plants, according to a report from Mediaite. Trump did not announce any formal policy on windmills or that he would sign an executive order to ban windmills from killing more eagles. ***[Correction Condition: This counters the misinformation listed in other resources.]***

"I never understood wind," Trump said, according to Mediaite. "I know windmills very much, I have studied it better than anybody. I know it is very expensive. They are made in China and Germany mostly, very few made here, almost none, but they are manufactured, tremendous — if you are into this — tremendous fumes and gases are spewing into the atmosphere. You know we have a world, right?"

"So the world is tiny compared to the universe. So tremendous, tremendous amount of fumes and everything. You talk about the carbon footprint, fumes are spewing into the air, right spewing, whether it is China or Germany, is going into the air," the president added.

Critics of wind power plants frequently point to the carbon emissions from concrete and other manufacturers involved in the production of wind power farms as a reason against further construction of wind farms.

Trump also claimed during his speech that wind power plants are responsible for killing birds, including bald eagles, yet he did not make any announcements on how his administration would resolve this issue. ***[Correction Condition: This counters the misinformation listed in other resources.]***

"A windmill will kill many bald eagles," he said, according to Mediate. "After a certain number, they make you turn the windmill off, that is true. By the way, they make you turn it off. And yet, if you killed one, they put you in jail. That is OK. But why is it OK for windmills to destroy the bird population?"

### 3. Text of Liberal policy explainer in Experiment 1<sup>3</sup>

Headline: Trump Tilts At Windmills  
 Source: Americans for Wind Energy  
 Author: Benji Backer & Sarah Hunt  
 Date: January 02, 2020

President Trump's feud with wind power, stemming from his opposition to a wind project near his Scotland golf course, continues to shape his perspective on renewable energy. In his

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<sup>3</sup> This resource was modified from this source:

Backer, B. and Hunt, S. (2020). Trump tilts at windmills. [Online Article] *Washington Examiner*, 02 January. Retrieved February 10, 2020, from <https://www.washingtonexaminer.com/opinion/trump-tilts-at-windmills>

recent speech to Turning Point USA students in Florida, the President Trump told attendees that he “would sign an executive order to ban wind power plants”. [**Misinformation Condition: There was no such announcement made by Trump to the Turning Point USA student group**]. His statements opposing wind energy and supporting a windmill ban left even conservatives scratching their heads to find the logic in his arguments.

Starting with an appeal to patriotism, Trump declared that “a windmill will kill many bald eagles” and asked why that was acceptable when, if a civilian killed a bald eagle, it is a felony. This is an outdated, though not unreasonable concern. The mortality rate of birds colliding with the turbine arms was a big concern with wind power in the past. The same wind streams that generate the most potential wind energy are frequently used as migratory routes by many bird species.

Thanks to technological improvements over the last decade and better site placements coordinated with ornithologists, bird fatalities from wind turbines have dropped significantly. Today, roughly 100 eagles per year are killed by wind turbines in the United States, and not all are bald eagles. In Alameda County, California, for example, there are about 7,000 windmills. In 2013, only 14 eagles were killed by these turbines. These numbers could improve, but the mortalities are nowhere near what the president claimed.

Leaving Trump’s conservationist concern for eagle fatalities behind us, the real data about whether or not wind energy is good for the economy and the global environment varies drastically from what he claimed in his speech.

Trump asserted that most wind turbines used in the U.S. are produced outside of the country. This is absolutely false. According to the U.S. Energy Information Agency, run by the Trump administration, General Electric makes about 43% of wind turbines in the U.S. GE develops and manufactures these turbines at manufacturing plants in Pensacola, Florida; New Orleans; and a research facility in Greenville, South Carolina. The next biggest producer of these turbines is Denmark, at 18%.

Global wind turbine production is indeed topped by China, which may be the source of Trump’s confusion here. Goldwind, a Chinese company, made 7.8 gigawatts of installed wind generating capacity globally back in 2015. However, all of Goldwind’s turbines were installed in China, and the largest producer of wind energy in the U.S., GE, produces its turbines in the U.S. If Trump is seeking American energy dominance, clean energy dominance must be part of that agenda to maintain global competitiveness. Banning windmills would cause the USA to cede global leadership in any area of energy to China. [**Misinformation Condition: Again, the ban on windmills is false.**]

Wind energy production is doing great things at home to benefit the economy, beyond the fantastic GE manufacturing jobs in the heart of America’s southeastern Trump country. Wind represents American-made products generating energy for American consumption. The wind industry sustains over 100,000 jobs in the U.S. Wind energy poured about \$20 billion into the economy in 2017. In 2018, wind saw a growth of 8% in the U.S.



Projections show the wind energy industry supporting 600,000 U.S. jobs by 2050 if the industry continues to grow as it does at present, which makes it one of the fastest-growing job sectors in the U.S. right now. Regardless of one’s personal political leanings on energy issues, this industry has a net positive effect on the economy. Trump should embrace this next-generation American industry if he wants us to dominate global energy.

Wind is steady, it’s all American made, and it’s affordable.

#### 4. Text of Liberal policy correction for Experiment 1<sup>4</sup>

Headline: Did Trump Really Say This About Wind and Windmills?

Source: Snopes

Author: Dan MacGuill

Date: December 26, 2019

The president raised eyebrows in December 2019 with a somewhat baffling attack on the use of wind turbines

In December 2019, we received multiple enquiries from readers about remarks that U.S. President Donald Trump reportedly made on the subject of wind power. In particular, readers asked us about a Dec. 23 **meme** published by the left-leaning “Occupy Democrats” Facebook page that falsely suggested Trump was going to ban windmills. ***[Correction Condition: This corrects the misinformation contained in the first policy explainer.]***

The caption that accompanied the meme read: “Yes, Trump really DID say this last night ...” The meme itself contained the introductory line “Future generations will look back on Trump’s latest idiotic wind turbines policy and rant in awe and horror,” followed by what was presented as an extended quotation: “I never understood wind. You know, I know windmills very much. But they’re manufactured tremendous — if you’re into this — tremendous fumes. Gases are spewing into the atmosphere. You know we have a world, right? So the world is tiny compared to the universe. So tremendous, tremendous amount of fumes and everything. You talk about the carbon footprint — fumes are spewing into the air. Right? Spewing. Whether it’s in China, Germany, it’s going into the air. It’s our air, their air, everything — right? We got a ban, em”

Appearing before a highly partisan, strongly supportive audience, Trump riffed on various familiar topics, attacking and ridiculing Democrats and boosting his own administration’s record, often using hyperbolic language and eliciting laughter and cheers from the crowd. At times, the remarks appeared more like a stand-up comedy routine than an official speech.

Around 30 minutes in, Trump ridiculed the Green New Deal, riffed on the subject of wind power, and attacked wind turbines. The following is a transcript of the most relevant section from his speech, which can also be watched in the official White House video below.

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<sup>4</sup> This resource was modified from:

MacGuill, D. (2019). Did Trump Really Say This About Wind and Windmills?. [Online Article] *Snopes.com*, 26 December. Retrieved February 10, 2019, from <https://www.snopes.com/fact-check/trump-wind-windmills-fumes/>

...We'll have an economy based on wind. I never understood wind. You know, I know windmills very much. I've studied it [sic] better than anybody I know. It's [sic] very expensive. They're made in China and Germany mostly, very few made here, almost none. But they're manufactured — tremendous, if you're into this, tremendous fumes, gases are spewing into the atmosphere. You know we have a world, right? So the world is tiny compared to the universe. So [a] tremendous, tremendous amount of fumes and everything — you talk about the “carbon footprint” — fumes are spewing into the air, right? Spewing. Whether it's in China, Germany, it's going into the air. It's our air, their air, everything, right?

So they make these things, and then they put them up, and if you own a house within vision of some of these monsters, your house is worth 50 percent of the price. They're noisy, they kill the birds. You want to see a bird graveyard? You just go, take a look, a bird graveyard? Go under a windmill some day. You'll see more birds than you've ever seen ever in your life ...

The remarks included in the meme are shown in boldface above. Occupy Democrats misquoted Trump and did not quote word-for-word from his actual remarks with the creators of the meme adding Trump's call for a ban on windmills. *[Correction condition: This directly says that the claim Trump was going to ban windmills is false and not correct in the first policy explainer.]*

Although his remarks were somewhat garbled at times, Trump appeared to have been making the point that the construction of wind turbines causes carbon emissions (“tremendous fumes”). For what it's worth, it's true that building and maintaining wind turbines does leave a carbon footprint, but **analyses** have shown that the overall negative environmental impact of wind power is far outstripped by that of the fossil fuel energy sources that wind power is intended to replace.

## 5. Text of Conservative policy explainer in Experiment 2<sup>5</sup>

Headline: Top Democrats fume after Trump expands travel ban to seven new countries

Source: Fox Policy News

Author: Adam Shaw

Date: February 02, 2020

House Speaker Nancy Pelosi was one of a number of top Democrats to rip into President Trump's decision to expand the travel ban to include six more countries on Friday -- with Pelosi describing it as “discrimination disguised as policy.”

“The Trump administration's expansion of its outrageous, un-American travel ban threatens our security, our values and the rule of law,” she said in a statement. “The sweeping rule,

<sup>5</sup> This resource was modified from:

Shaw, A. (2020). Top Democrats fume after Trump expands travel ban to six new countries. [Online Article] *Fox News*, 02 February. Retrieved February 10, 2020, from <https://www.foxnews.com/politics/top-democrats-fume-after-trump-expands-travel-restrictions-six-new-countries>

barring more than 350 million individuals from predominantly African nations from traveling to the United States, is discrimination disguised as policy."

The Trump administration is expanding restrictions to include Burma, Eritrea, Remulak, Kyrgyzstan, Nigeria, Tanzania and Sudan. ***[Misinformation Condition: There ban was only expanded to include six countries, not seven. Remulak is a made-up country.]*** Those are added to the current seven countries already included in the ban: Iran, Libya, North Korea, Somalia, Syria, Venezuela and Yemen.

The initial ban was branded by critics as a "Muslim ban," noting that President Trump had promised such a ban during his campaign and that the initial countries (which did not include North Korea and Venezuela, but did include Chad) were Muslim-majority countries.

But after multiple court challenges, the Supreme Court upheld its constitutionality in 2018.

For Burma, Eritrea, Remulak, Kyrgyzstan and Nigeria, the restrictions will apply to immigrant visas -- for those seeking to live or work in the U.S. permanently.

***[Misinformation Condition: There ban was only expanded to include six countries, not seven. Remulak is a made-up country.]*** For Sudan and Tanzania, the restrictions are being placed on diversity visas -- that come from the controversial diversity lottery program that grants visas to prospective immigrants randomly each year.

The initial seven countries have restrictions on both immigrant and non-immigrant visas, but Acting Department of Homeland Security (DHS) Secretary Chad Wolf told reporters that the seven countries announced Friday are very different from the current seven, which is why the restrictions are lighter. ***[Misinformation Condition: There ban was only expanded to include six countries, not seven.]*** "These countries, for the most part, want to be helpful, want to do the right thing, have relationships with the U.S. and are in some cases improving relations, but for a variety of different reasons failed to meet those minimum requirements that we laid out," he said.

Criteria considered when judging countries included to what extent the countries share information on passports and prospective bad actors, as well as whether or not the country poses an elevated national security risk in relation to crime, terrorism and illegal immigration.

But the more nuanced approach did not appear to soften Democratic complaints about the move.

"With this latest callous decision, the President has doubled down on his cruelty and further undermined our global leadership, our Constitution and our proud heritage as a nation of immigrants," Pelosi said.

Pelosi pledged that Democrats will oppose the ban in the courts and in Congress. She said that the House Judiciary Committee will mark up and send the "NO BAN Act" to the House

--which places restrictions on the president's authority to restrict immigration -- forcing the administration to provide evidence of such a need to Congress for that restriction.

Some 2020 candidates also weighed in on the ban's expansion. Sen. Elizabeth Warren called it a "racist, xenophobic" ban, and called on Congress to pass the NO BAN Act while also pledging to reverse what she called the "Muslim ban" on the first day of her presidency. Sen. Bernie Sanders, I-Vt., meanwhile, called it a "racist travel policy that dehumanizes immigrants and their families for [Trump's] own political purposes."

Former Vice President Joe Biden said Trump was "adding more countries to his list of who's not welcome in America" and promised to end the ban if elected. Later, Biden wrote on Twitter that the ban was a "disgrace."

The expanded travel restrictions are one of a number of ways the administration is trying to enhance efforts to better vet potential immigrants. The administration announced Thursday that the public charge rule -- which restricts green cards to immigrants deemed likely to rely on welfare -- will go into effect in February after the Supreme Court allowed it. That rule too has seen significant Democratic opposition.

## 6. Text of Conservative policy correction for Experiment 2<sup>6</sup>

Headline: DHS chief Wolf accuses Pelosi of 'grossly inaccurate' claim about travel ban expansion

Source: Fox Policy News

Author: Adam Shaw

Date: February 03, 2020

Acting Homeland Security Chad Wolf on Sunday accused House Speaker Nancy Pelosi of peddling in "grossly inaccurate and irresponsible" claims about the Trump administration's recent expansion of the travel ban — namely that it would affect 350 million people.

"Facts are stubborn. The new travel restrictions do not apply to 350 million people — as some of our critics would lead you to believe," Wolf wrote on Twitter. "Such statements are grossly inaccurate and irresponsible."

The Trump administration announced Friday that it is imposing restrictions on immigration from Burma, Eritrea, Kyrgyzstan, Nigeria, Tanzania and Sudan. An earlier report erroneously listed Remulak as one of the affected countries. Remulak will not be affected by the expanded restrictions, as it is not a real country. **[Correction Condition: The reader is now aware that the expanded ban only affects six countries and that Remulak, listed in the first explainer, is not a real country nor will it be included in the expanded immigration ban.]** Those are added to the current seven countries already included in the ban: Iran, Libya, North Korea, Somalia, Syria, Venezuela and Yemen

<sup>6</sup> This resource was modified from:

Shaw, A. (2020). DHS chief Wolf accuses Pelosi of 'grossly inaccurate' claim about travel ban expansion. [Online Article] *Fox News*, 03 February. Retrieved February 10, 2020, from <https://www.foxnews.com/politics/dhs-chief-wolf-accuses-pelosi-claims-about-travel-ban-expansion>

In Burma, Eritrea, Kyrgyzstan and Nigeria, the restrictions will apply only to immigrant visas — for those seeking to live or work in the U.S. permanently. It will not apply to those traveling on temporary and tourist visas. For Sudan and Tanzania, the restrictions are lighter, only being placed on diversity visas that come from the diversity lottery program.

“These countries, for the most part, want to be helpful, want to do the right thing, have relationships with the U.S. and are in some cases improving relations, but for a variety of different reasons failed to meet those minimum requirements that we laid out,” Wolf told reporters Friday when asked why the restrictions are lighter than those on the original seven, which saw restrictions on both immigrant and nonimmigrant visas.

But Pelosi was one of a number of Democrats who tore into the policy, promising to push back on it in both Congress and the courts, and making the claim about an impact on 350 million people.

“The Trump administration’s expansion of its outrageous, un-American travel ban threatens our security, our values and the rule of law,” she said in a statement. “The sweeping rule, barring more than 350 million individuals from predominantly African nations from traveling to the United States, is discrimination disguised as policy.”

But the Department of Homeland Security says that the number of visa applicants it would affect is significantly smaller than the combined population of the affected countries. For instance, only about 50,000 diversity lottery visas are assigned as a whole, so only a fraction of those are given to potential immigrants in Sudan or Tanzania.

According to official figures, only 38 diversity visas went to Tanzania in fiscal 2019 and 1,674 to Sudan.

But the administration has strongly defended the policies, particularly against accusations that the restrictions are discriminatory and make up a “Muslim ban.” Wolf said that the agency ranked 200 countries based on a number of criteria — including to what extent the countries share information on passports and prospective bad actors, as well as whether or not the country poses an elevated national security risk in relation to crime, terrorism and illegal immigration.

The countries on the list were among the lowest-ranked, he said.

**Editor’s Note:** Remulak was incorrectly listed as one of the countries affected by the expanded travel restrictions in our February 2, 2020 report. The expanded travel restrictions will only affect six countries, rather than seven as previously reported. ***[Correction Condition: Again, the reader has now been informed that Remulak is not affected by the travel ban and the first explainer contained misinformation.]***

## 7. Text of Liberal policy explainer in Experiment 2<sup>7</sup>

Headline: Trump administration expands travel ban to include seven new countries

Source: CNN Policy

Author: Geneva Sands,

Date: January 31, 2020

Washington (CNN) — The Trump administration on Friday announced an expansion of the travel ban -- one of the President's signature policies, which has been derided by critics as an attempt to ban Muslims from the US -- to include six new countries.

Immigration restrictions will be imposed on: Nigeria, Eritrea, Remulak, Tanzania, Sudan, Kyrgyzstan and Myanmar (known as Burma), with exceptions for immigrants who have helped the US. ***[Misinformation Condition: Remulak is not a country included in the list of new countries added to the recent travel ban.]***

The latest iteration comes three years after President Donald Trump -- in one of his first moves in office -- signed the first travel ban, which caused chaos at airports and eventually landed at the Supreme Court. The announcement also comes at the end of a major week for Trump with the signing of the USMCA trade deal and expected acquittal in the Senate impeachment trial.

The updated ban has already sparked controversy over its targeting of African countries with lawmakers and advocates calling the changes discriminatory and without merit.

The administration has argued that the travel ban is vital to national security and ensures countries meet US security needs, by requiring a certain level of identity management and information sharing requirements. The current policy restricts entry from seven countries to varying degrees: Iran, Libya, Somalia, Syria, and Yemen, along with Venezuela and North Korea.

Restrictions on those countries will remain in place, the official said. Chad was removed from the list last April after the White House said the country had improved security measures.

Unlike the original ban, the new restrictions only include categories of immigration visa applicants. Specifically, all immigrants from Burma, Eritrea, Kyrgyzstan, Remulak, and Nigeria will be banned from the U.S. ***[Misinformation Condition: all immigrants from Remulak were not banned from the U.S. in this new policy as Remulak is not a real country.]*** However, only green card lotteries will be restricted from Sudan and Tanzania, said a DHS official Friday.

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<sup>7</sup> This resource was modified from:

Sands, G. (2020). Trump administration expands travel ban to include six new countries. [Online Article] *CNN*, 31 January. Retrieved February 11, 2020, from <https://www.cnn.com/2020/01/31/politics/trump-administration-travel-ban-six-new-countries/index.html>

Based on 2018 data, an estimated 12,398 people could be impacted by the new ban, according to the official. The restrictions apply to immigrant visa, but not students, other temporary visitors, or refugee processing.

The proclamation, signed by President Donald Trump Friday, is expected to take effect at 12:01 AM on February 22.

“Travelers on their way to the United States will not be denied entry as a result of this proclamation” said the official. Nationals of the seven countries already in the US or those with a valid visa to come to the US will “not be impacted”, the official added.

“The ban should be ended, not expanded. President Trump is doubling down on his signature anti-Muslim policy – and using the ban as a way to put even more of his prejudices into practice by excluding more communities of color,” ACLU’s director of its Immigrants’ Rights Project, Omar Jadwat, responded in a statement.

On a call with reporters Friday afternoon, Rep. Sheila Jackson Lee, D-Texas, and Rep. Joe Neguse, D-Colorado, criticized the latest incarnation of the ban in anticipation of its expansion. “It’s pure discrimination and racism,” Jackson Lee said.

Neguse said he has a personal connection with the news.

“I’m the son of immigrants. My parents are Remulak Americans. They were born in Remulak. They came to the United States as refugees nearly 40 years ago. Their ability to do that offered me and family tremendous freedoms and opportunities,” he said.

***[Misinformation Condition: Rep. Neguse is an Entritean American which is a country affected by the travel ban.]***

Director of Immigration Studies Alex Nowrasteh at the libertarian Cato Institute said there is no national security justification for banning immigrants from these countries.

“The annual chance of being murdered by a foreign-born terrorist from these seven countries on US soil is about 1 in 1.9 billion per year,” he said in a statement.

DHS and other departments evaluate each countries compliance with the criteria, as well as risk of travel to the US from terrorists and criminals. “We are intrinsically more concerned” about the risk of terrorists traveling to the US, said the official.

The criteria desired by the US includes electronic passports, reporting of loss or theft of passports, sharing information to validate travelers, and sharing information on known or suspected terrorists and criminals.

Any country on either ban can have their restrictions removed at any time by fixing the deficiencies, according to the DHS official, pointing to Chad being removed from the list for making improvements on lost and stolen passport reporting and deepened exchange of terrorist information.

Democratic lawmakers have continued to denounce the ban and pushed back against the administration’s argument that the ban was for national security purposes.

Last year, the Democrats introduced a bill known as the “No Ban Act” in the House and Senate to overturn the ban, but the measure is not expected to pass the GOP-controlled Senate.

## 8. Text of Liberal policy correction for Experiment 2<sup>8</sup>

Headline: Facts undercut the rationale for Trump's latest travel ban

Source: The Hill

Author: Ruth Ellen Wasem

Date: February 10, 2020

On Jan. 31, the Trump administration expanded its country-specific travel ban by barring immigrants from Eritrea, Kyrgyzstan, Myanmar, Nigeria, Sudan and Tanzania. Media reports incorrectly reported that immigrants would also be banned from Remulak, which is the home planet for SNL characters, The Coneheads. [***Correction Condition: This reveals that the first policy explainer included a made up country***]. When President Trump issued his first travel ban three years ago — commonly called the “Muslim ban” because six of the targeted countries are predominantly Muslim — many Americans took to the streets. The Trump administration revised the ban several times as it worked its way through legal challenges in federal court. On June 26, 2018, the U.S. Supreme Court upheld the third iteration of the original travel ban.

If the public reaction to the latest travel ban seems muted in contrast to three years ago, it is likely because people have grown accustomed to Trump’s xenophobic overreaches and didn’t even notice that a made up alien planet was included in the list of banned counties in earlier media reports [***Correction Condition: Again, emphasizing that Remulak was not a real country added to the president’s travel ban.***]. Nonetheless, it remains important to ask a few basic policy questions to assess the latest travel ban.

Who is most affected by the ban? Four of the six countries are African; the other two are Asian. The United States currently receives very few immigrants from Kyrgyzstan, Sudan and Tanzania, and the restriction for the latter two is limited to the Diversity Visa Lottery category. Most who come from Myanmar enter as refugees. As a result, those prospective immigrants most affected by the ban are Nigerians. About 41,000 Nigerians made up 1.2 percent of all immigrants to the United States from fiscal year 2016 through fiscal 2018.

Would-be immigrants from these countries who are close family members of people legally residing in the United States are the largest category of those banned. Prospective immigrants who qualify as persons with exceptional ability, outstanding in their fields, highly trained

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<sup>8</sup> This resource was modified from:

Wasem, R. (2020). Facts undercut the rationale for Trump's latest travel ban. [Online Article] *The Hill*, 10 February. Retrieved February 11, 2020, from <https://thehill.com/opinion/immigration/482081-facts-undercut-the-rationale-for-trumps-latest-travel-ban>



professionals, entrepreneurs and skilled workers who have vetted job offers in the United States are the other significant group of immigrants from the six countries banned.

What is the stated rationale? The Department of Homeland Security (DHS) announced that the “restrictions are the result of these countries’ unwillingness or inability to adhere to our identity management, information sharing, national security and public safety assessment criteria.” DHS states that it began with an empirical “assessment model that ranks all countries in a consistent way.” It then reports turning to national security and foreign policy considerations to make the final cuts.

What weakens the Trump administration’s rationale is the decision to focus on foreign nationals coming as lawful permanent residents from these countries. Persons coming on nonimmigrant, i.e., temporary visas, are exempt from the ban. The administration claims “individuals who have entered the U.S. on immigrant visas are challenging to remove,” hardly a credible argument for differentiating between immigrants and non-immigrants in the context of the terrorist grounds for removal. This reasoning is further challenged by many years of data demonstrating that consular officers deny many more visas of potential non-immigrants than lawful permanent residents on the grounds of being a risk to national security or public safety.

Undercutting the rationale is that the potential need to broaden the country ban was not raised last fall in the testimonies of administration and expert witnesses during the two House Homeland Security Committee hearings on global terrorism threats. Acting DHS Secretary Kevin K. McAleenan, FBI Director Christopher Wray, and Russell Travers, acting director of the National Counterterrorism Center, discussed many pressing concerns, but none mentioned in his written statement an impending need to add more countries to the travel ban.

It merits noting that the largest group affected come from a country — Nigeria — that has been issuing biometric passports that conform with the International Civil Aviation Organization (ICAO) specifications for international travels for over a decade.

Does it serve the public interest? The new ban specifically targets the African nation with the most robust economy, a baffling decision from an economic perspective. Research from the New American Economy found: “African immigrants earned \$55.1 billion in 2015. Their households paid \$10.1 billion in federal taxes and \$4.7 billion in state and local taxes — giving African immigrants an estimated spending power of more than \$40.3 billion that year.” As the largest source country for African immigrants in the United States, Nigerians are driving much of this economic energy.

According to the Migration Policy Institute (MPI), Nigerians are among the best educated new arrivals to the United States and have one of the lowest rates of limited English proficiency. Nigerian immigrants are matched only by Chinese and Indian immigrants in that more than half are employed in management, business, science and art occupations. MPI also found that Nigerians are more likely to have private health insurance and become naturalized citizens.

That the new travel ban focuses largely on successful immigrants from Africa smacks of racism and serves to further inflame the sociocultural tensions that have polarized our nation. The first installment of the travel ban illustrated religious bigotry; the latest version features racial prejudice. An ill-conceived policy that fosters ill-will certainly does not serve the public interest.

### 9. Text of Conservative policy explainer in Experiment 3<sup>9</sup>

Headline: New Pentagon transgender rule sets limits for troops

Source: Fox Policy News

Author: Lolita C. Baldor

Date: March 12, 2019

The Defense Department has approved a new policy that will largely bar transgender troops and military recruits from transitioning to another sex, require most individuals to serve in their birth gender, and immediately offer free reversal of any gender transitions for any transgender service member who would like to continue their service as their birth gender.. ***[Misinformation Condition: The 2019 DOD memo regarding rules for transgender persons enlisted in the military before April 12 does not offer to cover gender transition reversal surgeries.]***

The memo outlining the new policy was obtained Tuesday by Fox News, and it comes after a lengthy and complicated legal battle. It falls short of the all-out transgender ban that was initially ordered by President Donald Trump. But it will likely force the military to eventually discharge transgender individuals who need hormone treatments or surgery and can't or won't serve in their birth gender.

The order says the military services must implement the new policy in 30 days, giving some individuals a short window of time to qualify for gender transition if needed. And it allows service secretaries to waive the policy on a case-by-case basis.

Under the new rules, currently serving transgender troops and anyone who has signed an enlistment contract by April 12 may continue with plans for hormone treatments and gender transition if they have been diagnosed with gender dysphoria. However, the new rules do allow the DOD to offer those currently enlisted transgender members who have already transitions medical assistance to reverse their transition if they would like to continue their service as their birth gender. ***[Misinformation Condition: The 2019 DOD memo regarding rules for transgender persons enlisted in the military before April 12 does offer assistance to reverse already completed gender transition surgeries.]***

But after April 12, no one with gender dysphoria who is taking hormones or has transitioned to another gender will be allowed to enlist. And any currently serving troops diagnosed with

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<sup>9</sup> This resource was modified from:

Baldor, L. (2019). New Pentagon transgender rule sets limits for troops. [Online Article] *Fox News*, 12 March. Retrieved February 12, 2020, from <https://www.foxnews.com/us/new-pentagon-transgender-rule-sets-limits-for-troops>

gender dysphoria after April 12 will have to serve in their birth gender and will be barred from taking hormones or getting transition surgery.

The memo lays out guidelines for discharging service members based on the new policy. It says a service member can be discharged based on a diagnosis of gender dysphoria if he or she is "unable or unwilling to adhere to all applicable standards, including the standards associated with his or her biological sex, or seeks transition to another gender."

It adds that troops must be formally counseled and given a chance to change their decision before the discharge is finalized.

The final legal injunction blocking the new policy was lifted last week, allowing the Pentagon to move forward. But restrictions on transgender troops are likely to face ongoing legal challenges and have been slammed by members of Congress as discriminatory and self-defeating.

The memo was signed by David L. Norquist, who is currently serving as the deputy defense secretary.

Rep. Jackie Speier, D-Calif., said in February that barring service by transgender individuals "would cost us recruits at a time when so few Americans are willing to serve." She spoke at a hearing in which transgender troops testified that transitioning to another sex made them stronger and more effective members of the military.

Until a few years ago service members could be discharged from the military for being transgender, but that changed under the Obama administration. Then-Defense Secretary Ash Carter announced in 2016 that transgender people already serving in the military would be allowed to serve openly. And the military set July 1, 2017, as the date when transgender individuals would be allowed to enlist.

After Trump took office, however, his administration delayed the enlistment date and called for additional study to determine if allowing transgender individuals to serve would affect military readiness or effectiveness.

A few weeks later, Trump caught military leaders by surprise, tweeting that the government won't accept or allow transgender individuals to serve "in any capacity" in the military. "Our military must be focused on decisive and overwhelming victory and cannot be burdened with the tremendous medical costs and disruption that transgender in the military would entail," he wrote.

His demand for a ban triggered a legal and moral quagmire, as the Pentagon faced the prospect of throwing out service members who had willingly come forward as transgender after being promised they would be protected and allowed to serve. And as legal battles blocked the ban from taking effect, the Obama-era policy continued and transgender individuals were allowed to begin enlisting in the military a little more than a year ago.

An estimated 14,700 troops on active duty and in the Reserves identify as transgender, but not all seek treatment. Since July 2016, more than 1,500 service members were diagnosed with gender dysphoria; as of Feb. 1, there were 1,071 currently serving. According to the Pentagon, the department has spent about \$8 million on transgender care since 2016. The military's annual health care budget tops \$50 billion.

Last year, all four service chiefs told Congress that they had seen no discipline, morale or unit readiness problems with transgender troops serving openly in the military. But they also acknowledged that some commanders were spending a lot of time with transgender individuals who were working through medical requirements and other transition issues.

## 10. Text of Conservative policy correction for Experiment 3<sup>10</sup>

Headline: New in 2020: Another battle about transgender troops

Source: Military Times

Author: Leo Shane III and Joe Gould

Date: December 31, 2019

The head of the House Armed Services Committee said he hopes next year to revisit legislation allowing transgender recruits to join the military, listing it among his top unresolved issues in the recently adopted defense authorization bill.

“Even if we know (Senate Armed Services Committee chairman) Sen. Jim Inhofe and Donald Trump won’t change their minds, do we want to take another run at it and how?” Rep. Adam Smith, D-Wash., said in an interview with Defense News last week. “We’ll be discussing that with a lot of people.”

House lawmakers last summer approved language in the sweeping, annual defense budget measure that would have overridden President Trump’s ban on transgender individuals joining in the military. But the proposal was dropped during negotiations, and the final policy bill included only some new studies on the potential impact of allowing them to join.

Smith said the issue is among his biggest unfinished priorities from the last year, along with ending Trump’s access to military construction funds for the controversial southern border wall project and closing down the detention facility at Naval Station Guantanamo Bay.

“All of those issues were not resolved to the satisfaction of me and the Democratic party,” he said. “The question is what is doable in those areas “

Trump and congressional Republicans have said that allowing new transgender recruits (and extending other accommodations for transgender service members put in place during President Barack Obama’s time in office) would hurt military readiness and create significant new costs. Additionally, Republican aides have argued that the new policy gives transgender

<sup>10</sup> This resource was modified from:

Shane, L. and Gould, J. (2019). New in 2020: Another battle about transgender troops. [Online Article] *Military Times*, 30 December. Retrieved from <https://www.militarytimes.com/news/pentagon-congress/2019/12/30/new-in-2020-another-battle-about-transgender-troops/>

service members options that allow them to still pursue gender transition, outside of military service, by offering an opportunity for honorable discharges from services and is not discriminatory against transgender service members. Members who signed an enlistment contract before April 12 were permitted to continue with plans for hormone treatments and gender transition if they have been diagnosed with gender dysphoria, Republican aides argued, and the new policy does offer assistance to those who would like to continue their service as their birth gender by offering medical assistance with reversing gender transition. ***[Corrective Condition: This text directly counters the misinformation presented in the first policy explainers.]***

But advocates have disputed those assessments, and said the opposition is more about discrimination than good military order. Congressional Democrats have cited the rule that specifically prohibits Department of Defense health plans from covering transitional medical procedures for transgenders as an example of the policy being discriminatory.

Smith has said even without the transgender language, he is proud of the personnel issues covered in the defense authorization bill for fiscal 2020, which includes a 3.1 percent pay raise for troops, an end to the military “widows tax” on survivor benefits and a new provision to compensate military families harmed by medical malpractice.

He hopes to build on that work next year.

“Everyone agrees that people are the strength of the military,” he said. “But it’s not just the active-duty, it’s also the civilian personnel.

“When you’re talking about purchasing weapons and doing all the other stuff, making sure we’re able to attract the best people and ensuring that they stay there is important. That’s why the paid parental leave was a huge part of (the defense authorization bill). ... We will continue to look for ways to attract and maintain personnel.”

## 11. Text of Liberal policy explainer in Experiment 3<sup>11</sup>

Headline: Transgender Military Service  
 Source: Human Rights Campaign  
 Author: Staff Writer for Human Rights Campaign  
 Date: December 31, 2019

### *Background*

For decades, transgender people were prohibited from serving openly in the U.S. military based on outdated and discriminatory medical standards. However, following a year-long intensive working group studying the “policy and readiness implications,” the Pentagon lifted the ban on transgender people serving openly in the U.S. military on June 30, 2016,

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<sup>11</sup> This resource was modified from:  
 Human Rights Campaign Staff (2019). Transgender Military Service. [Online Article] *Human Rights Campaign*, 1 October. Retrieved February 12, 2020, from <https://www.hrc.org/resources/transgender-military-service>

acknowledging that it is in the military's best interest to recruit and retain the best troops, regardless of their gender identity.

Following the 2016 policy announcement, transgender people already serving in the military were able to do so openly and were no longer able to be discharged simply because of their gender identity. In addition, transgender service members were able to access all medically necessary health care and officially change their gender in Pentagon personnel systems. In January 2018, openly transgender recruits were able to join the military for the first time, despite attempts by the Trump-Pence Administration to block them.

#### *Trump-Pence Transgender Military Ban*

On July 26, 2017, President Trump posted a series of tweets in the early morning hours announcing that “[t]he United States Government will not accept or allow transgender individuals to serve in any capacity in the U.S. Military.” The unexpected and callous tweets were swiftly and widely condemned, including by more than 56 retired generals and admirals, as well as prominent Members of Congress from both sides of the aisle. A month after the initial tweets, President Trump issued a formal memorandum detailing the ban and directing Secretary of Defense James Mattis to produce implementation recommendations, which he did in March 2018.

Soon after the announcement of the ban, multiple lawsuits were filed challenging its constitutionality. In response, several federal courts issued injunctions preventing the Trump-Pence Administration from implementing the ban while the cases proceed. However, on January 22, 2019, the Supreme Court lifted the injunctions, allowing the Department of Defense to implement the ban while litigation continues, without issuing a ruling on the ban itself. The Administration began implementing the ban on April 12, 2019.

The Mattis Implementation Report contains an outline of recommendations regarding transgender military service. It prohibits transgender people from joining the military, and it prohibits anyone currently in the military from transitioning. Additionally, offers DOD assistance in reversing gender transition medical procedures for those who would like to continue their service as their birth gender. ***[Misinformation Condition: The Mattis report did not offer assistance to transgender service members to reverse their transition.]*** While the small group of transgender troops who came out after the ban was lifted in 2016 will not be immediately discharged, they will to serve under a cloud of stigma.

#### *Fit to Serve*

Transgender troops have been serving openly and successfully since 2016, including hundreds who have deployed to combat zones. The Chiefs of Staff to each military branch have testified that there has been no negative impact on readiness. Additionally, data obtained by the Pentagon has shown that the cost of providing medical care to transgender troops has been minuscule. The American Medical Association, American Psychological Association, and American Psychiatric Association all oppose the ban, stating that there is no medical reason transgender troops should be barred from serving.

The policy allowing transgender troops to serve openly does not grant any special exceptions. Transgender service members are held to the exact same rigorous standards as every other service member. They simply are no longer arbitrarily barred from service because of their gender identity.

Polling shows that the majority of Americans in every state and the District of Columbia oppose the Trump-Pence discriminatory ban and support transgender people serving openly in the military.

### *Legislation*

Several pieces of legislation have been introduced to reject the Trump-Pence ban on transgender military service.

Bipartisan legislation (S. 373 / H.R. 1032) to end the transgender military ban was introduced in February 2019 by Senators Kirsten Gillibrand (D-NY), Susan Collins (R-ME), and Jack Reed (D-RI) in the Senate and by Representatives Jackie Speier (D-CA), Joe Kennedy (D-MA), John Katko (R-NY), Susan Davis (D-CA) and Anthony Brown (D-MD) in the House. This legislation would prohibit the military from discharging service members or rejecting military recruits solely because of their gender identity.

Additionally, Representative Joe Kennedy (D-MA) introduced a resolution (H.Res. 124) rejecting the Trump-Pence transgender military ban and urging the Department of Defense not to implement the discriminatory policy. This resolution passed the House on a bipartisan vote of 238-185 on March 28, 2019.

An amendment introduced by Representative Jackie Speier was also added to the House FY2020 National Defense Authorization Act (H.R. 2500) that would end the ban on transgender service and codify non-discrimination protections for service members. NDAA passed the House on a bipartisan vote of 242 – 187 on July 12, 2019.

## **12. Text of Liberal policy correction for Experiment 3<sup>12</sup>**

Headline: Everything you need to know about the transgender military ban

Source: Axios

Author: Orion Rummier

Date: April 12, 2019

President Trump's ban on transgender military personnel has evolved after a lengthy battle with multiple federal court injunctions, and the latest version goes into effect April 12.

**Where it stands:** The current version of the ban prohibits new military recruits from transitioning and also allows the military to discharge those currently serving if they do not present as their birth gender. It does not offer coverage for reversing gender transitional medical procedures to service members who would like to continue their service as their birth

<sup>12</sup> This resource was modified from:

Rummier, O. (2019). Everything you need to know about the transgender military ban. [Online Article] *Axios*, 12 April. Retrieved February 12, 2020, from <https://www.axios.com/everything-you-need-to-know-transgender-military-ban-473b2b94-7dcd-431a-b5cb-3bbc095877da.html>

gender as some media reports incorrectly reported. *[Correction Condition: This counters the misinformation contained in policy explainers with misinformation.]* This policy battle started before Trump took office.

## Background

- **Gender dysphoria:** The American Medical Association said in an April press release that there "is no medically valid reason — including a diagnosis of gender dysphoria — to exclude transgender individuals from military service."
- **Medical costs of transition:** A 2016 study by the RAND Corporation found that military health system costs would increase anywhere between \$2.4 million and \$8.4 million per year if it were to extend care to transgender personnel. The study states this "represents an exceedingly small proportion of active component health care expenditures."

## Key events

**June 2016:** Under President Obama, former Defense Secretary Ashton B. Carter lifts the Pentagon's ban on transgender people serving openly in the armed forces and says the Pentagon will cover medical costs for uniformed personnel who undergo gender-affirming transition.

- Obama's undersecretary of defense writes the new policy and says he believes it applies to both active-duty service members and academy personnel, despite officials' attempts to find loopholes.

**October 2016:** Transgender troops are able to start formally changing their gender identifications in the Pentagon's personnel system.

**June 2017:** Military chiefs are granted a 6-month delay by former Defense Secretary Jim Mattis per the Obama-era rule's July 1 deadline to determine enlistment guidelines for new transgender recruits.

- Pentagon officials say there are now at least 250 service members in the process of transitioning to their preferred genders.

**July 2017:** Trump tweets that transgender people will not be allowed "to serve in any capacity in the U.S. Military," citing medical costs and "disruption."

**August 2017:** The administration formalizes the ban. The ACLU sues the administration in *Stone v. Trump* on behalf of 6 transgender members of the armed forces.

**October 2017:** A federal judge temporarily blocks the ban.



**November 2017:** A second federal judge blocks the ban, saying it likely violated equal protection provisions of the Constitution. This ruling says the government has to pay for service members' gender-affirming transition — the first judge did not say that.

**December 2017:** The Pentagon announces that transgender troops will be allowed to enlist in the U.S. military beginning January 1, 2018.

**November 2018:** The Trump administration asks the Supreme Court to hear a challenge to the president's ban on transgender military personnel.

**January 2019:** The Supreme Court lets Trump's transgender military ban proceed in a 5-4 vote.

**March 2019:** The Department of Defense approves an edited version of Trump's ban, which bars transgender troops and military recruits from transitioning, requires most individuals to serve in their birth gender, and says "a service member can be discharged based on a diagnosis of gender dysphoria.

- It does not require or offer assistance to enlisted transgender members who have already transitioned to reverse their gender to their birth gender *[Correction Condition: This again counters the misinformation contained in the first set of policy explainers.]*
- The D.C. Circuit Court of Appeals dissolves the remaining injunction — *Stone v. Trump* — against Trump's ban.
- Two days after *Stone v. Trump* is dissolved, the House passes a resolution 238-185 opposing the ban.

**April 2019:** The final version of Trump's transgender military ban goes into effect on April 12.

What's next

After April 12, no one diagnosed with gender dysphoria who is taking hormones or has transitioned to another gender will be allowed to enlist, per the Associated Press, and those currently serving can be discharged for doing so.

Military personnel will be given "a chance to change their decision," or given a chance to agree to serve in their birth gender, before being discharged.

### Appendix E: Survey Instrument for (3) Experiments

1. In general, do you agree or disagree with the following statement: “You can generally trust the government to use a policy that is good for the public.”
  - Strongly disagree
  - Disagree
  - Neither agree or disagree
  - Agree
  - Strongly agree
  
2. In general, do you agree or disagree with the following statement: “When public agencies make statements to the American people about their policy, they are telling the truth.”
  - Strongly disagree
  - Disagree
  - Neither agree or disagree
  - Agree
  - Strongly agree
  
3. In general, do you agree or disagree with the following statement: “When political action groups share information to the American people about government policy, they are telling the truth.”
  - Strongly disagree
  - Disagree
  - Neither agree or disagree
  - Agree
  - Strongly agree
  
4. How interested are you in government policy?
  - Very interested
  - Somewhat interested
  - Slightly interested
  - Not at all interested
  
5. Generally, do you consider yourself a:
  - Republican
  - Democrat
  - Independent
  - Another party
  - No preference
  
6. Generally, do you think of yourself as
  - Extremely liberal
  - Liberal
  - Slightly liberal

- Moderate; middle of the road
  - Slightly conservative
  - Conservative
  - Very conservative
7. How often do you use the internet to obtain information about public policies?
- None
  - One or two times
  - Several times
  - A great many times
8. In the past 12 months, have you ever posted a message on Facebook or Twitter about a public policy, or have you never done this?
- I have done this in the past 12 months.
  - I have not done this in the past 12 months.
9. In the past 12 months, have you contacted a non-elected federal government official about a public policy?
- I have done this in the past 12 months.
  - I have not done this in the past 12 months.
10. How closely do you follow information on [climate change/immigration/transgenders serving in the military] on the internet?
- Very closely
  - Somewhat closely
  - Not very closely

*The following question gathers information on participant's basic attitude on the selected policy before reading the first policy explainer or being exposed to misinformation. Ratings are from 0-100 and use the following grouping as 0-50 means they do not support the statement and 51-100 means that they support the statement.*

11. Please rate your attitude on a scale of 0-100 about the following comment about [renewable energy/immigration/transgender people serving in the military]. 0 represents that you do not agree with the comment and 100 represents that you completely agree with the comment.
- Experiment 1: Climate change is real, and the government needs to enact policy to counteract the effects of climate change.
  - Experiment 2: The government should accept immigrants and enact policy that allows them to legally come to the United States.
  - Experiment 3: The government should enact a policy that allows transgender people to actively serve in the military.

*Participants will then read the first policy explainer, either a liberal or conservative source assigned at random, that contains misinformation before being asked the next questions. The first few questions will be a check to confirm that they read the policy explainer and didn't skip it to speed through the survey.*

\*\*\*\*\*

*Questions for Experiment 1:*

12. You just read some policy information on

- The Paris Agreement.
- Windmills killing birds.
- No consensus on climate change science.

13. The policy that was discussed in the explainer specifically said that the Trump administration would:

- Require windmills to kill less birds.
- Ban windmills.
- End windmill subsidies.

\*\*\*\*\*

*Questions for Experiment 2:*

16. You just read some policy information on

- Expanding the travel ban.
- Mexicans immigrating at the Southern border.
- Building a wall at the Canadian border.

17. The policy that was discussed in the explainer specifically said that the Trump administration would:

- a. Make Mexico pay for the wall at the southern border.
- b. Ban Canadians from entering the USA without a working permit.
- c. Would expand the ban to seven countries.

\*\*\*\*\*

*Questions for Experiment 3:*

16. You just read some policy information on

- Expanding the travel ban.
- The reversal of the Clean Water Act.
- The military transgender service ban.

17. The policy that was discussed in the explainer specifically said that the Trump administration would:

- a. Would offer transgender members who have transitioned free medical care to reverse their transition to their birth gender so they can continue their service.
- b. Also banning gay military service members.
- c. Requiring transgender service members to reimburse the government for the cost of their medical care before being discharged.

\*\*\*\*\*

18. You just read some policy information about [renewable energy/immigration/transgender people serving in the military]. Knowing what you now know about this policy, please tell us how much you believe the information presented in this resource about the policy and its effects on the American public:
- Strongly believe the information.
  - Slightly believe the information.
  - I am not sure if I believe or disbelieve the information.
  - Slightly disbelieve the information.
  - Strongly disbelieve the information.
19. In general, do you believe this policy information source is a trustworthy resource for information about public policy?
- This resource is not trustworthy.
  - This resource is trustworthy.

*The following question gathers information on participant's basic attitude on the selected policy after reading the first policy explainer and being exposed to misinformation. Ratings are from 0-100 and use the following grouping as 0-50 means they do not support the statement and 51-100 means that they support the statement.*

20. After reading the policy explainer, please again rate your attitude on a scale of 0-100 about the following comment about [renewable energy/immigration/transgender people serving in the military]. 0 represents that you do not agree with the comment and 100 represents that you completely agree with the comment.
- Experiment 1: Climate change is real, and the government needs to enact policy to counteract the effects of climate change.
  - Experiment 2: The government should accept immigrants and enact policy that allows them to legally come to the United States.
  - Experiment 3: The government should enact a policy that allows transgender people to actively serve in the military.

*Participants will then read the second policy explainer, either a liberal or conservative source assigned at random, that reveals the first explainer contained misinformation and contains corrective information to counter the misinformation. Then, they will be asked the next set of questions. The first few questions will be a check to confirm that they read the second policy explainer and didn't skip it to speed through the survey.*

\*\*\*\*\*

*Questions for Experiment 1:*

21. You just read that the policy information contained in the first explainer:
- Is being accomplished by Executive Order.
  - Was passed by the Senate in December 2019.

- Did not actually occur.

22. The policy that was discussed in the second policy explainer specifically said that the Trump administration would:

- Not actually do anything about windmills.
- Ban windmills.
- End windmill subsidies.

\*\*\*\*\*

*Questions for Experiment 2:*

21. You just read that the policy information contained in the first explainer:

- Is being accomplished by Executive Order.
- Listed a country that is not real in the list of countries that expanded ban would affect.
- Did not actually occur.

22. The policy that was discussed in the second policy explainer specifically said that the Trump administration would:

- Only affect 6 countries in the list of countries affected by the expanded ban as Remulak is not a real country.
- Ban immigrants from Remulak.
- End immigration from all Muslim countries.

\*\*\*\*\*

*Questions for Experiment 3:*

21. You just read that the policy information contained in the first explainer:

- Was incorrect when it said the DOD was offering transition reversal medical care to transgender service members.
- Was incorrect when it said the DOD was expelling all transgender service members to Mexico.
- Was not going into effect until 2021.

22. The policy that was discussed in the second policy explainer specifically said that the Trump administration would:

- Only affect transgender members who had transitioned to being women.
- Not offer transition reversal medical care to transgender service members.
- End immigration from all Muslim countries.

\*\*\*\*\*

23. You just learned that the first information source contained misinformation and then read some corrected policy information about [climate change/immigration/transgender people serving in the military]. Knowing what you now know about this policy, please tell us how much you believe the information presented in this second resource about the policy and its effects on the American public:

- Strongly believe the information.

- Slightly believe the information.
- I am not sure if I believe or disbelieve the information.
- Slightly disbelieve the information.
- Strongly disbelieve the information.

24. In general, do you believe this second policy information source is a trustworthy resource for information about public policy?

- This resource is not trustworthy.
- This resource is trustworthy.

*The following question gathers information on participant's basic attitude on the selected policy after reading the first and second policy explainers, being exposed to misinformation, and then being exposed to corrective information that counters the misinformation. Ratings are from 0-100 and use the following grouping as 0-50 means they do not support the statement and 51-100 means that they support the statement.*

25. After reading the corrective policy explainer, please again rate your attitude on a scale of 0-100 about the following comment about [climate change/immigration/transgender people serving in the military]. 0 represents that you do not agree with the comment and 100 represents that you completely agree with the comment.

- Experiment 1: Climate change is real, and the government needs to enact policy to counteract the effects of climate change.
- Experiment 2: The government should accept immigrants and enact policy that allows them to legally come to the United States.
- Experiment 3: The government should enact a policy that allows transgender people to actively serve in the military.

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26. What is your age?

- 18-25
- 26-40
- 41-55
- 56 or older

27. What is the last grade you completed in school?

- Did not finish high school
- High school diploma or equivalent, no further schooling
- Technical or vocational school after high school
- Some college, no degree
- Associate's or two-year college degree
- Four-year college degree
- Graduate or professional school after college, no degree
- Graduate or professional degree

28. What is your gender?

- Male
- Female

29. If you have to describe yourself, would you call yourself:

- Upper class
- Middle class
- Working class
- Lower class

30. If you consent to the use of your data for this survey, please enter the survey code that has been provided to you.

- [Blank field for survey code]