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## Designing Surveys on Youth Immigration Reform: Lessons from the 2016 CCES Anomaly

Saige Calkins

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DESIGNING SURVEYS ON YOUTH IMMIGRATION REFORM: LESSONS FROM  
THE 2016 CCES ANOMALY

A Thesis Presented

by

SAIGE MARIE CALKINS

Submitted to the Graduate School of the University of Massachusetts Amherst in partial  
fulfillment of the requirements for the degree of

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DESIGNING SURVEYS ON YOUTH IMMIGRATION REFORM: LESSONS FROM  
THE 2016 CCES ANOMALY

A Thesis Presented  
By  
Saige Marie Calkins

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## ABSTRACT

### DESIGNING SURVEYS ON YOUTH IMMIGRATION REFORM: LESSONS FROM THE 2016 CCES ANOMALY

SEPTEMBER 2020

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Even with clear advantages to using internet-based survey research, there are still some uncertainties to which survey methods are most conducive to an online platform. Most survey method literature, whether focusing on online, telephone, or in-person formats, tend to observe little to no differences between using various survey modes and survey results. Despite this, there is little research focused on the interaction effect between survey formatting, in terms of design and framing, and public opinion on social issues, specifically child immigration policies - a recent topic of popular debate. This paper examines an anomalous result found within the 2016 Cooperative Congressional Election Study (CCES) public opinion immigration question focusing on a DACA-related policy, where support was evenly split on the typically highly favored policy. To decipher the unprecedented result, an experimental survey design was conducted via Qualtrics by comparing various survey formats (single style, forced choice, Likert scale, inclusive details) to the original CCES “select all that apply” matrix style. By comparing the experimental polls, the results indicated that the “select all that apply” matrix again produced anomalous results, while the various other methods produced a breakdown similar to typical DACA-related polling data. These findings have necessary implications

for future survey designs and those examining public opinion on child immigration policies.

**Keywords:** Dream Act, DACA, Framing theory, Survey design, Select all that apply,

Forced choice, Cooperative Congressional Election Survey

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## I. INTRODUCTION:

Within political science scholarship, methods of surveying public opinion are one of the most widely debated and researched topic areas. Surveys help build political theories, produce caption-worthy statistics, and boost corporate efficiency. Their usage permeates our everyday lives, making it all the more necessary to produce valid and reliable survey data. Especially when measuring subjective topics, such as political opinion, ensuring the most accurate survey methods is essential.

In the 2016 Cooperative Congressional Election Survey (CCES), one question asked about Americans' approval of various immigration policies, from banning Muslim immigrants to increasing the number of visas for oversea workers. In the United States, immigration has grown to be a polarizing issue, especially following the terrorist attacks of 2001, and even more so after President Donald Trump made illegal immigration a platform issue of his 2016 campaign (Rachman et al., 2017; Gonzalez, 2019). Yet, despite growing controversies and counteractive legislation, public support for the Deferred Action for Childhood Arrivals (DACA) and Development, Relief, and Education for Alien Minors Act (DREAM Act), two Obama-era policies that provide security for unauthorized immigrants brought to the United States as children, has always remained highly favorable. According to Quinnipiac polls in 2018, 79% of Americans support DREAMers applying for citizenship, with 7% approving of their limited legal residency, and only 11% believed Dreamers should be required to leave (Quinnipiac, 2018). The policy has had approval ratings among the public of 70% or higher since it was first introduced in 2010. Keeping this in mind, why is it that, when the CCES surveyed American opinion on a DACA-related policy in 2016, there was a near even

split of support amongst respondents? Of 64,600 Americans surveyed, 53.1% selected that the U.S. should not use a policy like the DREAM Act, while 46.9% believe the U.S. should enact it. This begs the question: Why are the results of the CCES 2016 incongruous with the consistent positive polling for the DREAM Act?

It may be suggested that the CCES' divided support was a reflection of the public being influenced by the rhetoric of President Donald Trump's 2016 campaign, which emphasized "cracking down" on illegal immigrants and building a border wall between the United States and Mexico. Yet, four years later in June 2020, polls by Politico/Morning Consult show a majority of Trump voters want to protect Dreamers. The survey found that Dreamer support was found amongst, "68 percent of Republicans, 71 percent of conservatives and 64 percent of those who approve of the job Trump is doing. Even 69 percent of those who voted for Trump in 2016 — when he vowed to deport Dreamers — say they should be protected," (Kumar, 2020). I propose that, upon closer evaluation, the length of options, design, and rhetoric of the immigration question skewed survey responses.

Finding the most effective means of measuring public opinion of DACA-related policies has far-reaching implications. First and most evidently, it offers more accurate measures for the CCES to use in the future when designing their questionnaire format. Second, other institutions conducting large surveys may find the results relevant to their own work, especially when they plan to ask about various opinions in a matrix style, similar to the CCES. Social scientists very commonly use surveys as a direct means of experimentation, giving the conclusions of this paper potential for a greater impact. Third, as this paper touches on the factors affecting public support of DACA, it can

provide further insight to immigration specialists on how the public interprets and reacts to child immigration policies.

Within this paper, it is hypothesized that faulty structure and missing details on U.S. immigration reform within the 2016 Cooperative Congressional Election Survey (CCES) were the cause of the puzzling divide on a typically favored policy, the DREAM Act. Using previous scholarship as guidelines, the CCES survey will be recreated in multiple formats to determine whether stylized versions cause polling numbers to differ from the original design. I argue that, due to positive news coverage on the DREAM Act, and in turn empathetic public perceptions of undocumented youth, support for child immigration reform should remain consistently high. This paper invalidates the survey mode used by the 2016 CCES survey and offers more conducive alternatives including: forced-choice response formats, single-styled questions, and precise policy-specific descriptors that all produce a more reliable measurement tool for recording American public opinion on the DREAM Act.

## II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT:

### **The Dream Act and DACA:**

Before delving into the mechanics of opinion survey methods, an overview of literature explaining high-levels of support for protective child-focused immigration policies will be reviewed. Though the 2016 CCES immigration policy question does not exactly describe DACA or the DREAM Act, the phrasing of it encompasses the central ideals of both acts, particularly the DREAM Act. The CCES phrasing states:

“Grant legal status to people who were brought to the US illegally as children, but who have graduated from a US high school.”

DACA allows deferred action, also known as temporary protective status, and work authorization to those who were brought to the U.S. illegally as children and are pursuing either an education, military enrollment, or employment. If granted this status, a recipient must reapply every two years to continuously have a protected status. Unlike the DACA, the DREAM Act offers a pathway to naturalization. Though many versions of the DREAM Act have been put before Congress since its first appearance in 2001, the main goal of the bill was to create a pathway to a legal status for those brought to the United States as undocumented youth. Essential portions of the most recently passed version of the Dream Act, American Dream and Promise Act of 2019, included that eligible undocumented youth must have a high school diploma or equivalent, as well as no criminal history, to be considered for conditional permanent residency (CPR, 2019). Once accessed, the recipient can then maintain legal permanent residency (LPR) by either achieving higher education, enlisting in the military, or holding authorized employment. Similar to the standard naturalization process, once LPR is held for five years then the immigrant may apply for U.S. citizenship status (American Immigration Council, 2019). Dating back to their first legislative introduction under the Bush administration, and their further progression during the Obama administration, DACA and the DREAM Act have both received bipartisan support from the public and politicians alike.

In comparison to both DACA and the DREAM Act, the 2016 CCES immigration policy question highlights offering, “legal status to those who were brought to the U.S. as children, but who have graduated from a U.S. high school” - which though not exact, is

attempting to gain the essence of the DREAM Act, as both allow access to a legal status through an educational requirement. The original version DREAM Act has additional fulfillment options, like military enrollment, employment pursuits, and no criminal record, before allowing a recipient to receive LPR. It is important to note the difference between the CCES phrasing and the actual DREAMer policy as to not make presumptuous comments, yet the policy similarities are difficult to deny. Research surrounding the perception and depiction of the DREAMer policy and immigrant subgroup will be used as a tool to better understand how respondents will conceive the policy description and place their support. If a respondent is familiar with either popular child-immigration policy, it is likely they will assume the CCES question to be in relation to these as well. In the next section, an analysis of framing theory on DACA and the DREAM Act by the media and elites will be laid out to offer explanations on child-immigration policies' high level of support.

### **Framing Theory:**

The American public is often swayed, or completely informed, by the representation a policy holds amongst the media and political elites (Burns, Gimpel, 2000). Early political science scholarship has shown that American public opinion is neither consistent nor stable (Converse, 1964; Zaller, 1992). Rather, opinions are founded in the expression of others' ideals on the topic, specifically noting if the issue is framed in a positive or negative manner. This concept becomes abundantly clear when analyzing the frames, and consequential strong support, for child-related immigration policies in comparison to standard frames and opinion surrounding unauthorized adult migrants.

According to Chong and Druckman (2007), framing is known as, “the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue” (104). An earlier definition by Entman (1993) details the causation of framing more intricately: “to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem, definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described,” (52). By combining both Entman (1993) and Chong and Druckman’s (2007) conceptualizations of framing theory, a full image of media production and public reception is properly described. These scholars describe an individual’s belief as a summation of the framed considerations they have been in contact with on said topic, whether these are through friends, family, media, or political elites.

During a survey, respondents give value to each accessible viewpoint they have encountered on the subject to orient their own opinion (Zaller, Feldman, 1992). The ultimate goal of a survey is to gather one’s truest opinion, therefore curators of surveys would greatly benefit from researching popular frames around a given issue before designing the question. The extra step of frame evaluation will assist the survey designer in understanding how their question will be mentally processed by respondents, giving potential insight into the importance of question rhetoric in affecting support levels. Popular frames of a political subject can be distinguished by conducting a content analysis of media and political elite discourse (Matthes, 2009).

Unlike typical immigration coverage, popular frames for DACA and the DREAM Act have been positive throughout the years, which could explain the policy’s continuous high approval rating. In a 2019 study, Rendon et al. (2019) gathered 238 articles from

both Spanish- and English-language news outlets in order to evaluate the depiction of DACA immigrants and whether these media sources presented a consistent frame of the issue. They ensured that chosen newspapers were of high circulation and had both an online and print edition to guarantee saliency amongst the public. Searching for both pro- and anti-DACA frames, the authors found that newspapers were most commonly reproducing positive frames. The most salient frame, which was present in 79% of Latino and 67.7% mainstream news outlets, was to protect this group of youth immigrants. The other top two frames highlighted the economic benefits and the positive morality of allowing DACA immigrants security. Their content analysis found that frames were generally positive when covering DACA and DREAMer immigrants; these positive frames, in turn, contribute to a positive public perception of these issues.

Furthermore, much of the coverage on DACA and the DREAM Act has focused on campaigns led by undocumented students. In their content analysis of print and online articles of youth-led anti-deportation campaigns, Patler and Gonzalez (2015) found that undocumented students were far more likely to receive coverage than undocumented non-students. They also found that, regardless of educational status, articles used pro-immigrant quotes four times more often than anti-immigrant ones when discussing unauthorized youth. Citizenship was also presented differently than typical immigration reform targeting unauthorized adults; in these articles, citizenship was framed in terms of deservingness, acculturation, civic engagement, and victim status (Patler, Gonzalez, 2015). Rather than homing in on nationality or threat narratives, the media is exposing the public to perceptions of empathy surrounding a particular sub-group of undocumented immigrants.

By contrast, scholars analyzing media frames of general articles on unauthorized immigrants and immigration have found them to be overwhelmingly negative. With 73% of undocumented immigrants in the United States being of Latino origin, most unauthorized immigration news articles focus on said demographic, whether purposefully or not (MPI, 2016; Valentino, Brader, Jardina, 2012). Throughout years of content analysis and studying public discourse, Chavez (2001, 2008, 2011) found a theme across media news stories; namely, that Latino immigrants were often framed as threats to public safety, welfare programs, American culture, and the economy.

Mirroring Chavez's style of content analysis, other political scholars have conducted their own specific evaluations of media content to determine if there is a trend of negative frames toward the Latino community - continuously, Chavez's findings are upheld (McGowen, 2006; Stewart et al., 2010). Serving this purpose, these frames do affect public opinion and curate a negative perception of unauthorized immigrants within the United States. Similar to how black Americans are more often shown in news stories involving crime, Latinos are more often the focus of news stories involving immigrants draining public welfare systems or taking American jobs at lower wages (Chavez, 2008; Wei et al., 2019). The public will psychologically process these frames, in turn associating those demographics with the media's chosen depiction when asked to evaluate a survey.

### **Public Perceptions of Immigration:**

When testing the validity of Latino narrative frames through experimental designs, scholars found that adverse frames were linked to increases of public opposition toward Latino immigrants, regardless of legal status. For example, Valentino, Brader, and



Suhay (2008), conducted an experiment in which they gave respondents news articles that featured two of the following manipulations: a positive or negative tone on the consequences of immigration, and focused on either a recent Latino or European immigrant. Their results showed that those who received the negative Latino centered articles were the most likely to have triggers of anxiety, as well as more severe perceptions of immigration as a national problem. Although the negative frame worked similarly for both Latino and European articles, those centered on Latinos have two times as strong of an effect in decreasing immigration support among respondents. Scholars have insinuated that such continuously conditional frames repetitively presented by the media can lead to ethnocentrism.

Ethnocentrism is the tendency to perceive other cultures as inferior based on misconceptions rooted in the individual's own culture (Kinder, Kam, 2009; Hammond, Axelrod, 2006). For example, media depictions combined with elite rhetoric on Latinos have led to Americans associating this demographic with welfare assistance, low-skilled labor, and crime, while alternative depictions of Muslims have led to stereotypes of religious fanaticism and outward violence; in turn, these attitudes have clear effects on public support of immigration policies (Konitzer et al., 2019). The perpetually negative frames of Latinos as unauthorized immigrants within the media have led to heightened public opposition of immigration reform.

Yet, within this same Latino demographic, there is a sub-group that has continually received positive frames in the media, and has, as a result, high polling favorability as a policy. In 2014, 77% of DACA applicants were from Mexico, with the top four other countries being El Salvador, Guatemala, Korea, and Honduras (Batalova et

al., 2014). And, as stated earlier, public opinion polls for DACA and the DREAM Act have an approval rate consistently above 70%. The most recent Pew Research polling information, from June 2020, indicates that 74% of Americans support DACA, even with 96% of recipients being Latino (Krogstad, 2020).

DACA and DREAMers elicit a certain response from the public, due to the saliency of positive frames depicting them as children, students, workers who were brought here at an innocent age. Rather than focusing on the illegality of their status, as many non-DACA unauthorized immigration articles do, stories on eligible DACA and DREAMer recipients tend to highlight how this young population will benefit the nation (Rendon et al., 2019). The comparatively innocent depiction of this sub-group allows them, and the policies regarding their status, to be evaluated by the public on different criteria than the larger demographic of Latino immigrants without an authorized status.

Part of the DREAMer frame was curated by policymakers and activists in order to increase positive perception of the policy among the public. Lauby (2016) labels the “perfect DREAMer” narrative as a frame in which unauthorized migrants of a young age are portrayed as well-assimilated, goal-oriented, U.S.-educated, and, especially, innocent of the crime that brought them to the United States. Such a narrative carries traits similar to American values, such as independence, hard work, and self-sacrifice. The “perfect DREAMer” narrative was curated through congressional testimonies, activist group messages, political protests, and media campaigns alike. In 2010, a group of undocumented youth activists wearing graduation caps and gowns, often holding banners flagged “Undocumented and Unafraid,” marched from Florida to Washington D.C. to meet with elected officials, urging them to support the DREAM Act. This march,

appropriately known as the “Trail of Dreams,” was a piece of a political movement that further emphasized the frame of DREAMers as hardworking, motivated students, thus influencing their representation amongst the media and political elites (Fauby, 2016; Flores, 2016).

The variances in presented frames and public opinion should highlight how the term “immigrant” can be appraised differently depending on qualities of the given group. Too often in scholarship, public opinion on immigration is thought to be universally applicable, when in reality, surveys and media outlets are often alluding to specific sub-groups of the immigrant community (Blinder, Jeannet, 2017). The mental image a respondent has when asked about immigration is curated by a unique set of prior and given information (Blinder, 2015; Lippman, 1997). When questioned about DACA or the DREAM Act, respondents will likely picture an Americanized student, as discussed above - not an undocumented immigrant who threatens American jobs and drains welfare systems (a common media portrayal of non-DREAMer immigrants). The CCES described policy is most likely to conjure images similar to news stories on DACA and DREAM recipients – hard working Latino youth, typically pursuing a higher education.

Individuals will allude to such references, provided by the media and elites, when deciding their opinion on the policy reform. Psychology scholarship evaluating social perceptions of various groups has noted acute differences in how adult and children immigrants are perceived; cognitively, the image of a child immigrant is far less threatening than that of an adult. The Stereotype Content Model (SCM), crafted by Susan Fiske and colleagues, surveys how various groups identify others on a scale of warmth (traits such as morality, trustworthiness, friendliness) and on a scale of competence (traits

such as intelligence, skill sets, confidence) (Cuddy, Fiske, Glick 2008). The cognitive appraisals used to perceive a group are based on that groups' perceived status and competition when in comparison to one's own group; these appraisals can be founded in ethnocentrism (Lazarus, Folkman 1984). According to Fiske's and Cuddy's SCM charts, immigrants categorized as poor, undocumented, African, Latino, and/or Mexican American were perceived as having the lowest warmth and competence levels by Americans (Lee, Fiske, 2006). In contrast, children were seen to be high in levels of warmth and low in levels of competence. A combination of high in warmth and low in competence evokes emotions of pity and sympathy, while those low in both categories tend to induce contempt (Cuddy, Fiske, Glick, 2008). The difference in cognitive perception of these two groups further explains why the public recognizes child-focused immigration policies more positively than general immigration reform, leading us to question why the CCES 2016 found such divided approval on the policy.

Due to media framing, and the consequential empathetic perceptions of children, the DREAM Act has consistently remained favorable amongst the American public. Despite the overarching bipartisan favorability, President Trump has attempted to dismantle portions of the DREAM Act and DACA. Yet throughout his presidency, as multiple polling sites suggest, approval ratings on youth immigration reforms still remain high. Neither his negative rhetoric toward immigrants nor his restrictive immigration policies have decreased support for DACA and the DREAM Act; thus, I am not inclined to ascribe the CCES 2016 survey results to anomalous public opinion, but rather to flaws in the survey design itself.

## **Framing Effects in Surveys:**

As presented, frames exist within everyday interactions and media consumption. They exemplify how minor changes in rhetoric, tone, and imagery can cause shifts in attitude. Simple policy descriptions, such as those featured in surveys, also have the ability to affect attitude change through these same devices. Influences to response behavior, whether through detail inclusion, length, or formatting are known as *response effects* (Bradburn, 1983). Particular wording and phrasing within these brief statements has the potential to trigger the effects of previously consumed, possibly more expansive, frames. Scholars have tested said theory within experimental survey designs, often disputing if minor changes within these small statements have any significant effect on response behavior (Gross, Brewer, 2005; van Londen, et al., 2010; Stalans, 2012).

Observing planned telephone surveys, Krosnick and Schuman (1988) found that when altering questions in terms of tone and word balance had significant effects on response behavior for those with strong and weak attitudes. Simple changes to how an attitude question is phrased, such as asking about previously held opinions or the importance of an issue, has the potential to alter previous responses (Chaiken, Baldwin, 1981). Others have tested variations in word intensity within policy statements, such as using “forbid” instead of “allow”, finding that this too can have effects on previously held respondent certainty (Hippler, Schwarz, 1986). Although, it must be noted that many of these studies observed *telephone* surveys, where tone and word choice has the potential to be amplified through verbal tones, where the CCES and the study presented were both held online.

When using online surveys, respondents are required to interpret the written statement presented to them, with typically an unlimited amount of time to decipher and answer the question. Within such cases, textual evidence, context, and choice descriptions are the mediating factors in how a respondent interprets the statement. Provided only this information, respondents will then presumably rely on their previously held knowledge to decide their opinion on the statement, which as stated, is often based within framing theory (Tourangeau, et al., 1989). If provided more context, such as detailed eligibility requirements on a child-immigration policy, respondents may be triggered to think in reference to previously held knowledge and shift their attitude.

### III. SURVEY DESIGN HYPOTHESES:

The Cooperative Congressional Election Study (CCES) 2016 survey consists of a series of questions inquiring about personal, political, and ideological information. For the most part, it is exactly typical to what the bi-yearly study should contain, yet when conducting simple informational tests on survey questions regarding United States immigration policies, a discrepancy was noticed between the typical rates of support for DACA/the DREAM Act and the results gathered by the CCES for a DACA-related question.

The CCES is a survey administered by YouGov, a global public opinion and data company, every two years to a sample of +50,000 Americans. Its Common Content section covers a wide variety of political questions, as well as demographic indicators, making up half of the survey. The remaining half is designated to “Team Content” ,

which consists of questions submitted by specific groups, typically of academic institutes or organizations, who curate their questions in advance. Each “team” has their designated questionnaire answered by a 1,000-person subset of the original sample. By allowing various groups to customize their own sections in the Team Content, the CCES becomes a diverse resource filled with a wide scope of questions inclusive of a multitude of interests. Based on Harvard University’s Dataverse accessible version, the 2016 CCES Common Content Survey guide and dataset have been downloaded over 35,000 times (Harvard, 2020). This does not account for the downloads of other portions of the CCES, including the individualized Team Content sections; therefore, the mentioned estimate, while still large, is likely an underestimate of the total number of individuals accessing the CCES data.

Clearly, the CCES is a highly valuable resource to many scholars who rely on its results for accurate and comprehensible public opinion data. If the data is not collected in a reliable way, polling numbers could be skewed by a simple misstep in survey design. To test which methods are most appropriate when surveying the public on DACA-related policies, this study will provide an overview of survey design literature, and in conjunction, an experimental survey design, to indicate which formats are most permissible to the subject.

As described above, the polling numbers regarding support for the CCES’ DACA-related question were low compared with traditional polling results - 48% support, 52% do not support. With closer analysis of the survey design and policy description, it becomes evident that the CCES chosen design was not well-suited for surveying immigration public opinion. Often, respondents have a difficult time defining

and marking their opinion during the short time period in which a survey is given, which is why structuring and framing survey questions in a user-friendly, neutral way is essential to collecting accurate results (Gaddis, 1998; Vehovar, Lozar-Manfreda, 2008). Based on existing literature and personal observations, I developed four hypotheses involving different survey methods and phrasing that will more accurately poll support for the DREAM Act and related policies.

Hypothesis 1:

The anomalous result found in the 2016 CCES immigration question is due to the robust number (eight) of policies presented in a matrix style, overwhelming the respondent and leading to respondent fatigue.

The CCES 2016 immigration reform section was titled with a short, instructional question, “What do you think the U.S. government should do about immigration? Select all that apply,” followed by eight statements, seven being policy descriptions and the last being “None of these.” For one question, eight various statements are a lot to process, especially if an individual is unfamiliar with the presented policies. As Krosnick (1991) states, “Survey respondents are often asked to expend a great deal of cognitive effort for little or no apparent reward,” (214). If this is the case, then what voluntary desire do respondents have to evaluate and decide approval from eight different statements located within one question, especially if they still have a 60 question survey to complete featuring similarly styled questions?

As Krosnick (1991) notes, when respondents do not follow through with a complete evaluation of a question before responding they are satisficing. Satisficing is



based on Tourangeau's and Rasinski's (1988) four-step cognitive process, believed to produce the highest quality for attitude survey data: (1) respondents must determine what the question is asking, (2) retrieve memory-based feelings and beliefs on the subject, (3) apply these beliefs to make a judgement, and (4) mark their response. If a respondent misses any of these steps, it is considered a form of satisficing. The second and third steps of this process fit well within the framing literature presented earlier - specifically, how retrieving previously viewed information, such as media frames, is central to response decision-making (Zaller, 1990; Zaller, Feldman, 1992). In a survey with nearly 60 questions, respondents can become fatigued and unconsciously skip one or more steps of the cognitive process. If respondents in the 2016 CCES were not plagued with multiple lengthy attitude questions, they could have optimized their performance to produce more accurate answers.

While common sense would assume that a lengthier survey is equated with lower quality responses, scholars have found mixed results on the issue, especially between mail-in and online formats (Cook et al., 2000; Edwards et al., 2002; Heberlein & Baumgartner, 1978; Singer, 1978; Walston et al., 2006; Yammarino et al., 1991; Rolstad et al, 2011). For online studies, results have shown that longer surveys lead to lower quality responses, in terms of response rate, time taken, and amount of "Don't Know" style answers (Deutskens et al., 2004; Wright, Schwagger, 2008; Galesic, Bosnjak, 2009). The CCES is administered electronically through YouGov via Polimetrix, which may explain why the lengthy question received discrepant results (Harvard Dataverse, 2019).

Only 13,269 respondents received an immigration question with eight options, while the remainder of the 51,331 were presented with only five options total, including

the DACA-focused question. When results were compared, both groups held similar breakdowns on the DACA-related question. The subgroup of 13,269 had 52% non-support and 48% support, while the main group of 51,331 had 53% non-support and 47% support. Option length, whether five or eight, did not seem to influence the unpredicted divide in support, suggesting that both lengths were too extensive for a “select all that apply” matrix format. If each policy descriptor was presented in a stand-alone style, respondents would likely evaluate and respond with more care.

#### Hypothesis 2:

The anomalous result found in the 2016 CCES immigration question is due to the “select all that apply” matrix format causing overt satisficing and primacy effects.

Alongside total survey length, the design of each question affects both response quality and rates. Survey designs are not universal, as each survey has different goals, yet certain formats have been found to be more conducive for opinion-based and attitude-oriented questions. The 2016 CCES immigration question is a “select all that apply” format, which, like other lengthy questions, require deep cognitive activity to be completed thoroughly. A respondent is asked to consider each policy, decide their level of support for the statement, and mark the corresponding box, if any, accordingly. Checking the box indicates support, while a box left unmarked has no true definitional meaning – could it be an emphasis of lack of support, a mistake, an error, or oversight?. In this design, respondents are also granted the option “None of these,” which can be

used as the ultimate form of satisficing for those unwilling or too fatigued to fully interpret the question.

The CCES has numerous “select all” style questions, which can cause respondents to feel fatigued by the amount of required interpretation. As Tourangeau and Rasinki’s (1988) and Krosnick (1991) note, attitude surveys require a lot of cognitive activity, so when a survey contains many of these stylized questions, respondents often resort to methods of satisficing. Especially in longer option-length questions, primacy effects can start to take shape - primacy effects are a form of satisficing caused when a respondent reads and evaluates only the first few options of a multi-response question - often choosing or marking the top options (Malhotra, 2008; Krosnick, 1991). With some CCES respondents receiving eight policy options to evaluate in the relevant immigration question, as well as numerous other questions presented in this same style, it is likely that some degree of primacy effects took place. A simple tool to prevent primacy effects on data validity is to ensure that option responses are randomized, as well as to change the format of the question to a forced-choice “yes/no” style that obligates respondents to evaluate each option.

In comparative experimental studies, “yes/no” formats have been found to lead to higher quality responses in comparison to “select all”, both in terms of mean response time and number of selected options (Smyth et al., 2006; Smyth et al., 2008; Nicolaas et al., 2015). Unlike the “select all” option, the “yes/no” design is a forced-choice response, meaning that respondents must make a decision for each statement listed, unlike in the “select all” style where a check represents support and the absence of one is ambiguous. In the “yes/no” design, respondents will receive the same policy prompts, yet each will be

followed by two response options: yes or no. The forced-choice format causes respondents to feel as though thoroughly reading and stating their opinion is obligated, rather than optional. Due the pressure of explicit support (or lack thereof), respondents will exert a deeper level of cognitive processing that will result in longer response times and more marked options (Krosnick 1992; Sudman, Bradburn, and Schwarz 1996).

In terms of data interpretation, the “yes/no” format also provides a more defined response than the “select all” option, which fails to define the meaning of an unmarked checkbox. In a “select all” matrix, the absence of a check indicating support can have a variety of meanings: disagreement, an oversight, confusion, or refusal to answer. Meanwhile, the “yes/no” format is definite, as it forces an answer of approval or disapproval, rather than producing ambiguous data (Sudman, Bradburn, 1982). For example, 30,286 marked the DACA-related question in the 2016 CCES, thus 34,313 left the box unchecked. Upon review, one might assume that the unmarked check boxes indicate disapproval for DACA, yet the absence of a check can have a variety of meanings, such as a misunderstanding of the question, human error, or lack of knowledge. For survey designers, it is important to orient the design to best suit the respondents’ cognitive processes, as well as consider the implications it will have on data analysis post-experiment.

When using a “yes/no” format, respondents marking “no” are giving an explicit indication of lack of policy support - yet, it is important to note that a forced choice method can occasionally pressure respondents with truly neutral views to pick a position. If this is the case, which it rarely is, such neutral respondents will choose “yes,” as it is a positive action, thus creating an agreeing response bias (Schuman, Presser, 1981).

Though this is not a large problem, it is one of the most highly cited critiques of the forced-choice method.

### Hypothesis 3:

The anomalous result found in the 2016 CCES immigration question is due to the “select all that apply” matrix format limiting respondents’ ability to clearly indicate their level of support for the policy through a numeric-defined scale.

The “select all” format has proved to be a disagreeable and difficult survey format to gauge political attitudes. Alongside forced-choice, another option that requires a respondent answer but offers an option of neutrality, is a Likert-style scale. Originally, in an attempt to better measure attitudes and beliefs, Rensis Likert (1932) designed the Likert scale with five, categorical points: Strongly Approve, Approve, Undecided, Disapprove, Strongly Disapprove. Since the scale’s introduction, various scientists and pollers have altered the original Likert format to better suit their questionnaire's purpose, but always relied on the scale’s ability to measure both attitude direction and intensity (Albuam, 1997). For the CCES, a numeric, end-defined slider scale of ten points will offer respondents flexibility in their opinions and easy use, along with providing researchers an easier statistical set up for analysis.

Unlike the original Likert scale, the one proposed in this study will be numeric with end-defined anchors where 0 is “Do Not Support” and 10 is “Support.” Using numbers instead of categorical labels strengthens the validity of results by eliminating subjectivity (Cummins, Gullone, 2000; Chyung et al., 2017; Chang, 1994). For example,

the phrases "strongly," "frequently," or "rarely" can vary in meaning and standard depending on the respondent. Numerics are of a universal understanding and, when accompanied by labelled end-points, will allow for easy respondent interpretation.

Even with ease of use, scholars have debated the range the numeric Likert scale should cover and whether a midpoint should be present. Preston and Colman (2000) attempted to find the idyllic Likert range based on three criteria: ease of use, quickness, and adequate expression of feelings. Respondents were instructed to fill out a questionnaire with various scale ranges (-2,- 3, -4, -5, -6, -7, -8, -9, -10, -11, and -101), then afterwards were asked to state their preference on each variety of scale. Results showed that the ten-point scale was both easy to use and allowed for a greater expression of feeling. Though scales of -2, -3, -4 ranges were the fastest to use, quick speed does not correlate with increased reliability. Other scholars have found similar results, claiming that a scale of 10 points creates easier conversions, allows greater expression, and lessens the need for scale descriptors (Dawes, 2008; Leung, 2011; Preston, Colman, 2000). Using a 10-point scale does create a midpoint of 5 that can be equated to neutrality, which would present the possibility of an agreed response bias mentioned earlier.

Hypothesis 4:

The anomalous result found in the 2016 CCES immigration question is due to the lack of detail provided in the DACA-related policy statement.

The various eligibility requirements for the DREAM Act allow the policy to appeal to both Democrats and Republicans. These requirements also allow the policy to

more precisely be associated to the DREAM Act, rather than be loosely related to a vague description of either DACA or the DREAM Act, as the CCES provides. In the 2016 CCES question, the DACA-related policy was presented as, “Grant legal status to those who were brought to the U.S. as children, but who have graduated from a U.S. high school,” which offered a limited description.

I predict that by providing more exact terms on DREAMer eligibility requirements two scenarios can arise: those with no knowledge on the congressional bill will get a clear picture of the requirements and protection provided and those with brief prior information will more effectively rely on frames previously presented to them to form their own opinion. DREAMer eligibility requirements have shown to have a broad base of support among the American public, thus a more descriptive version of the requirements in the CCES may trigger prior frame knowledge on the subject and allow for a more accurate representation of support. It also has the ability to provide a more precise description for those who hold no prior knowledge, so they may gain full scope of what the bill requires and provides for unauthorized youth. As has appeared in Quinnipiac University, CNN, and Pew Research polls, DREAM Act survey questions commonly include mention of other requirements, such as arriving in the U.S. as a youth, having no criminal offenses, and having either graduated from a U.S. high school or enlisted in the military (QP, 2018; CNN, 2018; Pew, 2019). As reviewed earlier, DACA’s support stems from a variety of factors, including the policy’s necessary enrollment requirements and its representation in the media.

Emphasizing the innocence of a child being brought to a state illegally through no fault of their own is one of the central selling characteristics of DACA and the DREAM

Act (Nicholls, 2013 [33]). An earlier overview of DACA and the DREAM Act's presence in the media emphasizes how influential the narrative surrounding eligible participants is. Within the media, elite, and activist groups, potential recipients are not simply "illegal immigrants," rather they are hardworking students, military enrollees, brought to the U.S. through no fault of their own, that wish to achieve the American dream through hard work and success. With the help of media frames, some respondents may hold knowledge that most Dreamers recognize themselves as Americans, many not even knowing of their illegal status until they attempt to get a driver's license or apply to college (Lauby, 2016). DREAMer's requirements increase the agreeability by providing respondents with details proving ensuring this subgroup of immigrants is hardworking through high school completion or military enrollment and has no history of criminality, despite their illegal. In turn, when attempting to assess public support of youth-related immigration reform, including central aspects of policy requirements is essential to receiving quality data.

#### IV. METHODOLOGY

To test the presented hypotheses, an experimental opinion survey was conducted through the online surveying platform, Qualtrics, from April 7, 2020 to April 14, 2020. Both the 2016 CCES and the featured experimental study were conducted online. The brief questionnaire consisted of one immigration and thirteen other questions relating to demographics and politics. The demographic questions were aimed to gather sample population information. The immigration question received was randomized from a



selection of five: (1) Select All That Apply (2) Yes/No (3) Scale of 10 for Support (4) Traditional DACA (5) CCES Single. Time taken to respond and submit the immigration question was also recorded. The chosen designs were based on the survey variants presented in the literature review, and placed in contrast to the 2016 CCES immigration question.

The “select all that apply” method acted as the control variable, with its presentation, wording, and length mirroring the longer 2016 CCES immigration policy question exactly (see Figure 1). Including a replication of the CCES version was essential to testing if the format would yield similar results as the original polling numbers, therefore showcasing if format is the true explanation for the discrepancy in public support. The full length version of the 2016 CCES question consisted of eight options and was distributed to a non-random subgroup, as a testing precaution, while the more highly circulated immigration question had five options and was made available to the majority 51,331 respondents. The variance in option length equated to the same near equal split for the CCES DACA-related question, indicating that option length may not be a cause for validity issues. Within the subgroup of CCES respondents receiving the longer, eight-option version, 51.9% voted disapproval on DACA, while the remaining 48.1% voted in support - the shorter, five-option immigration policy had a similar breakdown with 53.1% in disapproval and 46.9% in support. In this study, the longer version was also used to test H1 by comparing option length to another format variant -

the shorter, individual presentation using the same CCES wording.

**What do you think the U.S. government should do about immigration? Select all that apply.**

- Grant legal status to all illegal immigrants who have held and paid taxes for at least 3 years, and not been convicted of any felony crimes
- Increase the number of border patrols on the U.S.-Mexican border
- Grant legal status to people who were brought to the US illegally as children, but who have graduated from U.S. high school
- Fine U.S. businesses that hire illegal immigrants
- Increase the number of visas for overseas workers to work in the U.S.
- Identify and deport illegal immigrants
- Ban Muslims from immigrating to the U.S.
- None of these

*Figure 1: Select All That Apply CCES Format*

In contrast to the lengthy CCES version, a singular CCES DACA-related question using the same rhetoric was presented to select respondents. This style of question *only* featured the DACA question, presented by itself with the same wording from 2016 CCES, but was followed by a forced choice of *Yes* or *No* (see Figure 2). To test H1, the single presentation was used to give indication if respondents are merely satisficing or being entirely distracted by the robust amount of options presented in the original CCES survey. This format acts as a comparison to a similar version, featuring slightly more inclusive descriptors of the DACA policy than is provided by CCES.

What do you think the US should do about immigration? Do you support the following policy: Grant legal status to people who were brought to the US illegally as children, but who have graduated from U.S. high school.

Yes

No

Figure 2: *Single Style CCES Format*

To contrast with the above variation (see Figure 2), another format of the immigration question will feature the same design as the previously described variation, yet will feature language more descriptive of the true DREAM Act (see Figure 3). The more inclusive format was used to test H4, by comparing if the more descriptive policy will garner higher levels of support than the simplified version. The extended version of the DREAM policy statement mimicked the descriptions provided by standard polling sites, such as Quinnipiac University Poll, CNN Poll, Gallup, and Pew Research. These sites commonly use a DREAM question highlighting essential eligibility criteria for unauthorized immigrants brought here as children, such as having no criminal record, a high school diploma or equivalent, and either enlisting in the military or holding employment (American Immigration Council, 2019). Similar to the version above, the traditional DREAM immigration question will be followed by a *Yes* or *No* option.

What do you think the US should do about immigration? Do you support the following policy: Grant legal status to people who were brought to the US illegally as children, but who have graduated from U.S. high school or enrolled in the military, and have no criminal record.

Yes

No

Figure 3 : *Single Style Traditional Format*

Another version of the immigration question varies in format style from the original 2016 CCES immigration question by offering forced-choice response options, while still keeping option rhetoric and length intact. To differ only slightly from the control variable, all policy descriptions were presented in the same matrix style, yet were followed by two check boxes: *yes* or *no*. The described variant was used to test H2, which for a reminder, stated that a forced choice yes/no method would yield more reliable and valid results than a “Select All” model.

What do you think the US should do about immigration? Do you support the following policies?		
	Yes	No
Grant legal status to all illegal immigrants who have held and paid taxes for at least 3 years, and not been convicted of any felony crimes	<input type="radio"/>	<input type="radio"/>
Increase the number of border patrols on the U.S.-Mexican border	<input type="radio"/>	<input type="radio"/>
Grant legal status to people who were brought to the US illegally as children, but who have graduated from U.S. high school	<input type="radio"/>	<input type="radio"/>
Fine U.S. businesses that hire illegal immigrants	<input type="radio"/>	<input type="radio"/>
Increase the number of visas for overseas workers to work in the U.S.	<input type="radio"/>	<input type="radio"/>
Identify and deport illegal immigrants	<input type="radio"/>	<input type="radio"/>
Ban Muslims from immigrating to the U.S.	<input type="radio"/>	<input type="radio"/>

Figure 4: *Yes-No Matrix Format*

To offer a more flexible format for response, one variant of the immigration question instructed respondents to mark their support level along a 10-point sliding scale. In the same matrix style as above, the CCES-style policy descriptors was followed by an interactive sliding scale made up of numbers 0-10, with end-defined labels (see Figure 5). The lower half of the scale, meaning zero through five, is labeled with “Do Not Support”, while the upper half the scale is labelled “Support.” The ten-point scale format relates to H3, by testing if a sliding end-defined scale allows for more standardized DREAM Act

polling support than the CCES “Select All” format. Accordingly, the results from this format of surveying were in coordination with these end-defined labels - meaning, those marking a support level greater than 5 will be considered in favor of the policy, those with a support level lower than 5 will be marked as not in favor, and those marking 5 will be considered neutral opinions. Even though the sliding scale does offer a point of neutrality at 5, requiring respondents to mark each statement will encourage them to consider each statement thoroughly and not use this point as a tool for satisficing (Krosnick, 1991).

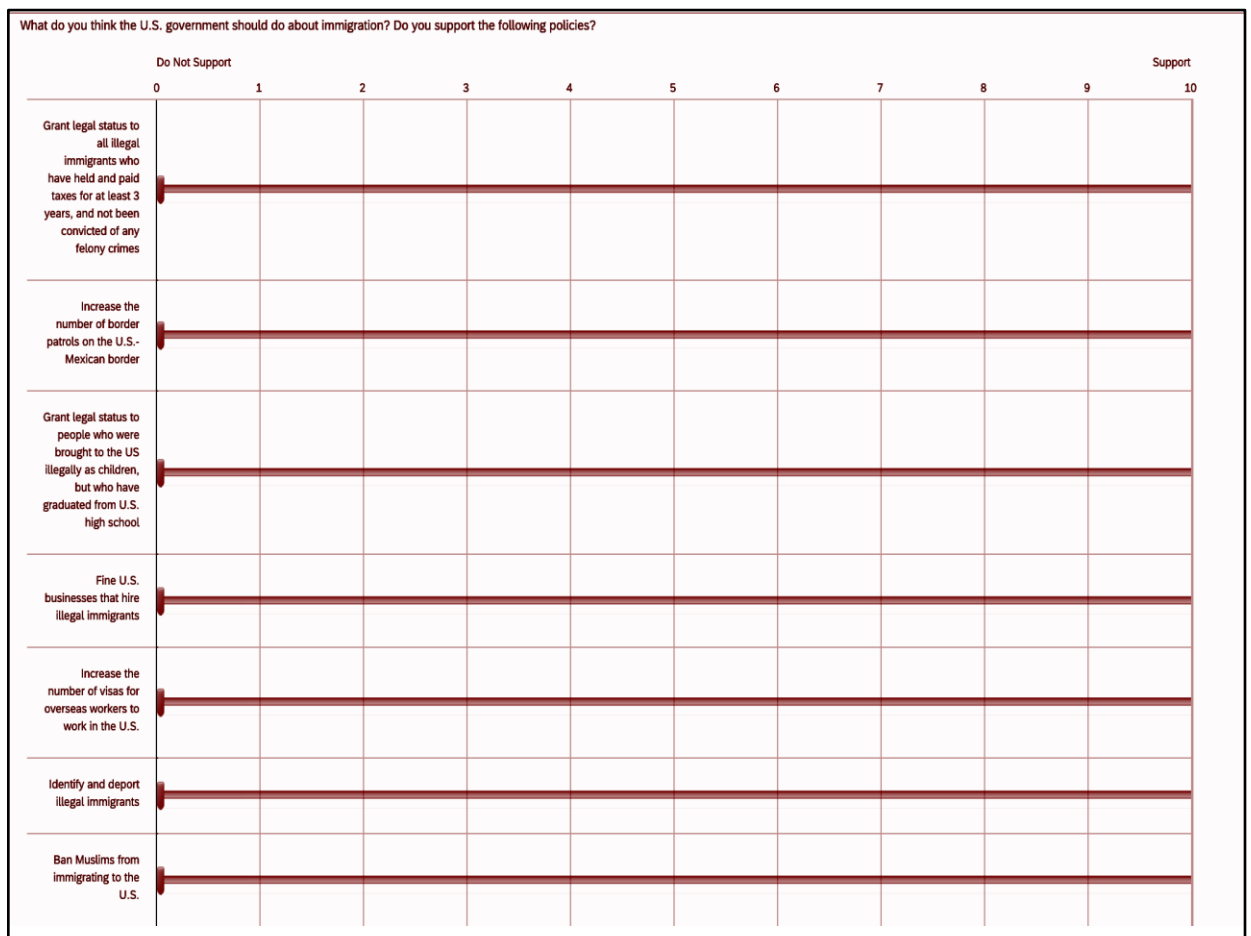


Figure 5: Ten-Point Scale Matrix Format

The five different formats of the immigration question act as independent variables, with the original CCES “select all” matrix style format being the control

measure. The dependent variable is the differing levels of support for DACA gathered from each format. Agreeability is measured differently according to each format. The policy support for the control variable, or “select all” format, is measured by whether a check is present - appearance of a check equates to support, absence of a check equates to do not support. For the single-style formats (CCES version and traditional) and the Yes/No matrix, a marking of the “yes” option will indicate support and consequently a marking of the “no” option will indicate a lack of support. As mentioned previously, the 10-point scale format will indicate support if a marking is above 5, lack of support if a marking is below 5, and neutrality if the marking is 5. The results will be portrayed in accordance with each formats’ support breakdown.

## V. RESULTS

Data collection occurred between April 7 and April 14, 2020, with a majority of responses being submitted on April 7, 2020 - only seven responses were collected after the initial day. Responses that were left completely empty were removed from the data collection due to their lack of addition to the distribution. Out of 270 responses, six non-responses submitted were removed from the main data collection, and two others were removed due to excessive survey duration.

The sample of respondents were recruited through Amazon MTurks via Qualtrics. Respondents were compensated with a small fiscal incentive of \$0.25 per survey completed with the questionnaire being advertised as taking 2-5 minutes. Due to the inexpensive nature and ease of access, Amazon MTurks controls the diverse convenient sample at a low cost. Using MTurk negates control of sample guidelines, as respondents

are able to choose which survey they would like to partake in but are randomly assigned to the treatment of said survey. Although studies have shown that MTurk's sample pools are not perfectly representative of the U.S. population, their samples are not drastically different in terms of characteristics and attitudinal observations - meaning that validity remains solid for political studies, as long as one is not studying treatment effects on specific sub-group (Berinsky et al., 2012). In contrast, the CCES carefully constructs their sample by using a random sample methodology, and then further weighting the responses through entropy balancing, to curate polling responses as representative of the U.S. population as possible. It must be noted that fair representation is not the goal of this survey; finding a more valid method for surveying public opinion on DACA is. Even with this being the case, the sample was fairly representative. Charts of comparison in terms of gender, race, and party identification between the CCES sample and the one associated with this experimental survey show how closely related the two are (see Tables 6-8).

260 respondents made up the convenience sample aimed to be fairly diverse, yet not equally as representative of the U.S. population surveyed by the CCES. In terms of racial make-up, 70% of respondents were White, 9% were Hispanic or Latino, 8% were Black or African American, 8% were Asian, less than 3% were Middle Eastern or American Indian, and the remainder filed as "Other" or "Prefer not to answer." For gender, 55% of respondents were male, 44% were female, and fewer than 1% filed as non-binary. Age distribution was heavy in those 26-35 years of age, who made up 44% of respondents. The youngest age range, 18-25 years, comprised 14% of respondents, 22% for those 36-45 years old, 14% for those 45-60 years old, and 6% for those 61 years or

older. Political party affiliation was completely representative of the U.S. population but came close, with 42% of respondents being Democrats, 22% being Republican, 31% being Independent, and with less than 4% of respondents listing either "Other" or "No preference." Though the survey sample is meant to be random and representative of a population similar to what the 2016 CCES aimed to achieve, it must also be recognized that the purpose of this survey is not the same as that of the CCES. The CCES aims to survey a large portion of the population to curate political polling statistics representative of U.S. public opinion, while the experimental survey presented in this paper is aimed to find which survey methods most accurately poll public opinion on DACA-related immigration issues. Respondents were provided with one of five different survey variations that only differed in the style of immigration question posed.

	CCES	Qualtrics
Democrat	38.53%	42.47%
Independent	23.69%	31.27%
Republican	28.24%	22.00%
Other	3.68%	1.54%
Not Sure	5.86%	2.70%

*Table 1: CCES and Qualtrics Survey Sample Demographics: Party ID (%)*

	CCES	Qualtrics
Female	45.70%	44.60%
Male	54.30%	55%
Non-binary	0%	0.38%

*Table 2: CCES and Qualtrics Survey Sample Demographics: Gender (%)*



	CCES	Qualtrics
White	71.65%	70.77%
Black	12.27%	6.15%
Hispanic	8.11%	5.77%
Middle Eastern	0.21%	0.38%
Asian	3.52%	8.85%
Native American	0.81%	0.38%
Mixed	2.25%	6.54%
Other	1.18%	0.78%
Prefer not to answer	0%	0.38%

*Table 3: CCES and Qualtrics Survey Sample Demographics: Gender (%)*

Time of survey completion is a commonly used indicator of response quality, with longer time lengths being representative of more consideration used during answer completion (Krosnick 1992; Sudman, Bradburn, and Schwarz 1996). Adjacently, variations in time spent taking the survey can also be a useful robustness measure. If a survey took an unprecedented amount of time or only a fraction of the average length, then this data may skew validity and reliability within the dataset. Most experimental survey designs testing a correlation between response time and answer quality find that a shorter time is equated with more rushed and less accurate responses (Revilla, Ochoa, 2015). The time taken by each treatment indicates that the single questions, as expected, took the least amount of time – averaging between 10-13 seconds. The medium time taken included the “select all,” and forced choice matrix, with “select all” having a mean time of 28 seconds and the forced choice being 31 seconds. Respondents using the interactive Likert scale took the longest amount of time, averaging 46 seconds (see Figure 6).

With an advertised time of taking two to five minutes, the mean completion time for this short experimental survey (specifically the time taken to complete only the immigration question) was 35.2 seconds - see distribution in Figure 7. The fastest response time was 1.7 seconds, and the longest time was 191.16. Of the 270 responses submitted, four of the responses were removed from the dataset, as they took over 600 seconds to complete. Therefore, 4 responses were removed due to extreme time reports and 6 were removed due to an absence of responses, leaving 260 responses for data collection.

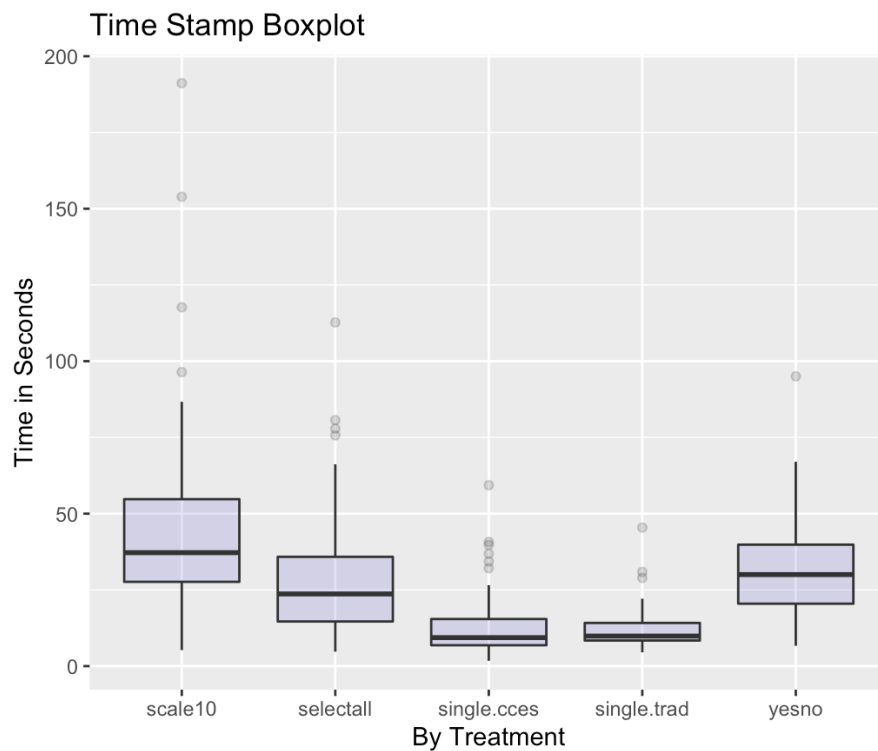


Figure 6: Time Stamp of Immigration Question by Treatment Boxplot

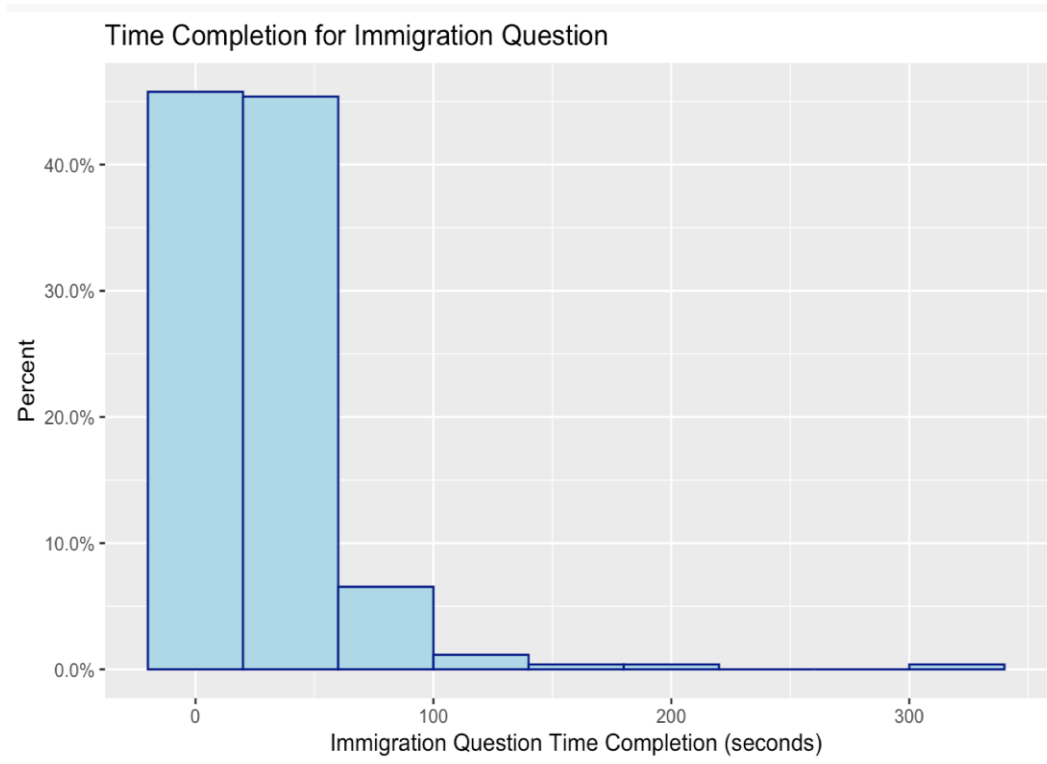


Figure 7: *Immigration Question Time Distribution in Seconds (Qualtrics)*

In terms of DACA public opinion, approval was measured in accordance with each question treatment’s specific style. A proportional table based on these measurement specificities was created to showcase the differing levels of support (%) between each format style (see Figure 8). 140 respondents received the CCES matrix style prompt with the “Select All” format, in which the absence of a marking was equated to a lack of support and the presence of one equated with support. Similar to what the 2016 CCES polled originally, the “Select All” format found a near-even split with 50% not supporting DACA and 50% in support of the bill. The original 2016 CCES polled a similar 52% approval and 48% disapproval for their DACA-related question. Recreating this question in the same style four years later and receiving near to equivalent results recertifies the

original belief that survey design is the central issue, rather than the results being a product of actual historic shifts in public opinion.

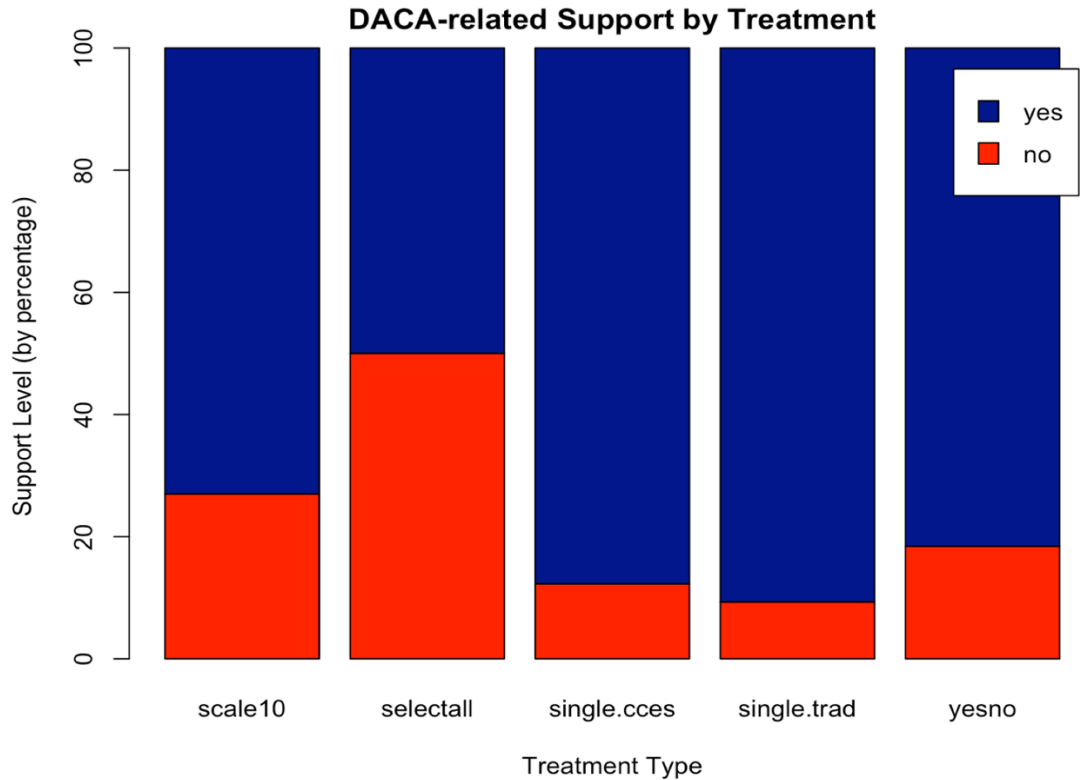


Figure 8: *DACA-Related Support by Treatment (%)*

By contrast, the Yes/No matrix style, which used the same wording for all nine of the CCES policy descriptors, polled that 18.4% do not support DACA, while 81.6% did support the child immigration act. 40 respondents received the forced choice matrix style, where “Yes” was considered supporting the bill and “No” as lacking support. The results of a higher, more standard approval rating for DACA supports H2, which predicted a Yes/No method would be more effective than the “Select All” used by the CCES.

Positive polling numbers were also found within the 10-point scale format that was received by 63 respondents. In the interactive sliding scale format, responses greater than 5 were equated to supporting the bill and those below 5 were lacking in support - an exact marking of 5 was considered a point of neutrality. Given the measuring sequence of this prompt, 73% of respondents were in support of DACA and 27% were not. Although the results of the interactive scale do not exactly match H3, the Likert-style scale format did gain results more closely related to typical DACA polling. The results gained were far more consistent than those of the CCES version.

The last two stylized measures were in a single-style question format - one mirrored the same DACA wording as the CCES and the other single version was similar, yet featured a more standardized, inclusive description of DACA requirements. Both formats were followed by a yes and a no option, with “yes” indicating support and “no” a lack of support. The CCES single DACA question, which was received by 57 respondents, received 87.2% support and 12.7% did not support. Similarly, the inclusive, traditional single style format was received by 47 participants and gained 90.7% support for DACA, with 9.3% lacking support. These highly favored results indicate that single questions, rather than a matrix style, make respondents more likely to support the policy. Being able to analyze the policy individually, rather than comparatively against other immigration policies, allows respondents to more intricately evaluate the question. In terms of H4, it is true that the more inclusive description garnered higher rates of support, but not by a large margin - and, to note, the CCES wording did poll approval ratings typical for DACA. The large increase in approval between the single-style question to the original “Select All” matrix further supports that survey design was the central issue of

the 2016 CCES immigration question. All formats other than the CCES-styled control variable were able to get higher approval ratings more consistent with typical DACA polling. Each alternative method garnered support of at least 23% higher than that of the control variable.

<b>DACA-Related Immigration Question</b>			
<b>Treatment</b>	<b>No</b>	<b>Yes</b>	<b>Count(n)</b>
<b>selectall</b>	<b>50.00%</b>	<b>50.00%</b>	<b>58</b>
<b>scale10</b>	<b>27.00%</b>	<b>73.00%</b>	<b>63</b>
<b>single.cces</b>	<b>12.28%</b>	<b>87.72%</b>	<b>57</b>
<b>single.trad</b>	<b>9.30%</b>	<b>90.70%</b>	<b>43</b>
<b>yes/no</b>	<b>18.42%</b>	<b>81.58%</b>	<b>38</b>

*Table 4: Proportional Table of DACA Support by Format Style*

When conducting a chi-square test on each of the methods, it was even more evident that there was an unusual occurrence with the “Select All” method (see Table 4). It was the method with the strongest associations overall, and the only to have a positive association with a lack of support and a negative with support. The results showcase how the “Select All” method was a rarity in comparison to the various other designs - overall, it was the least consistent with the expected value points. In Figure 9, a chi-square correlation displays positive residuals in blue with positive values specifying an attraction between the corresponding row and column variables. There is a strong positive association between the row “no” and the column “selectall,” where “no” is representative of a lack of support. By contrast, the negative residuals are in red and

represent a repulsion between the correlated row and column variable. In turn, there is a negative association between columns “scale.10” and “single.trad” and row “no.” There is also a repulsion between the column “selectall” and “yes.”

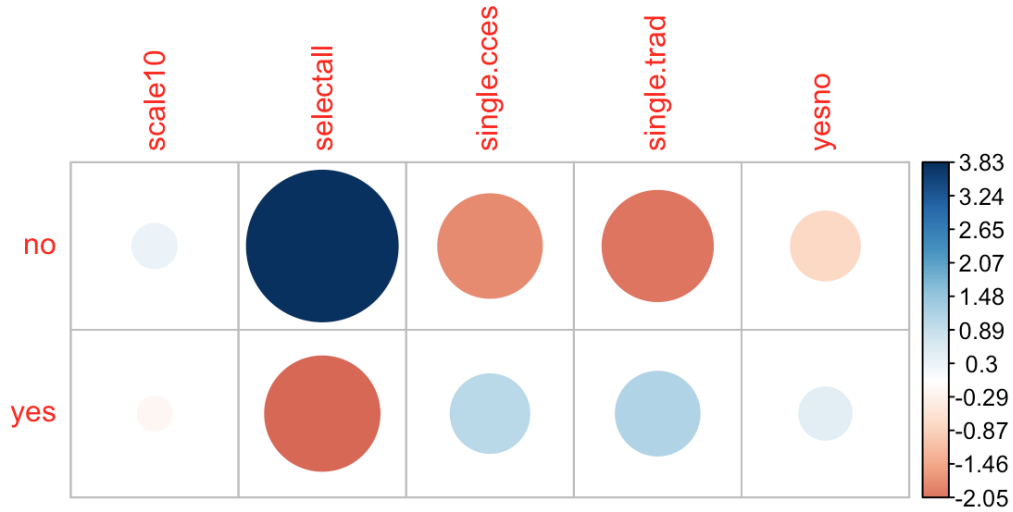


Figure 9: Correlation Plot of Treatment Chi-Square Test

## VI. DISCUSSION

This article investigates the effects of several survey designs on response quality when attempting to poll public opinion on child-related immigration policies. Compared against the original 2016 CCES “select all” format, with which this discrepancy was first noticed, the results of the experiment indicate that survey methods of either a single style, a 10-point scale, or a forced-choice matrix are all more effective in surveying public opinion. In line with existing literature, the results of the experimental design proved that a “select all” format can lead to respondent satisficing when completing a survey. The

need for a respondent to voluntarily evaluate each policy statement with little to no incentive causes lower quality responses. This effect is important for survey designers as they begin the process of curating a questionnaire. For the CCES, the results of the experimental design suggest they should reorient their immigration policy formatting to a forced-choice “yes/no” matrix, which garnered results most similar to historic DACA polling results. The “yes/no” polling results were 81.5% approval with 18.4% disapproval, with the most recent DACA poll from June 2020 of 78% support and 12% lack of support (Politico, Morning Consult, 2020). Though the “yes/no” format achieved the most similar results, all of the alternative methods’ results were more indicative of typical DACA approval than the “select all.” By incorporating one of these methods, the CCES could be providing more accurate information to the abundance of scholars who use their data, as well as offering a more efficient format for their respondents.

The results of the experiment are not only relevant to the CCES format, but could potentially influence survey designers from a variety of backgrounds. With only a small selection of literature displacing its use, the “select all” method is still a common style within questionnaires. Survey designers should take heed of the discrepant results this method produced within the 2016 CCES and within the re-creation of the question in the experimental survey. If the use of a matrix is necessary, a format requiring individual responses for each statement would increase the validity of results. The highest approval ratings were found in both the single-style formats, which could give indication that solo questions are granted the largest amount of consideration from respondents, as they are required to analyze a brief statement rather than a multiplicity of options. Then again, the



high approval of the solo questions could also be due to the survey's overall brevity; the results may differ if the questions were placed in a longer survey, like the CCES.

In terms of DACA and the DREAM Act, the results of the alternative question formats hold consistent to the policies' high approval ratings amongst the American public. There was interest in testing how the wording of the DACA policy within the proposed question would affect participants, as mentioned in H4. Results were only slightly different when comparing methods with the original CCES wording to those with the more inclusive policy description featured in the single-traditional style question. Regardless, rhetoric still has impact on survey design, especially when evaluating immigration policy. The abundance of literature on framing demonstrates how phrasing alone can influence how a question is interpreted by respondents, especially if it plays into their previously held beliefs on the issue. For future scholars, I encourage exploration into how particular frames of immigration policies influence public opinion within survey design. Frame effects on opinion are often tested through experimental survey designs, in which an article is presented to a respondent and then followed by a questionnaire (Scheufele, 1999; Huang, 1996). Experiments such as these leave room for hypothesis guessing, since respondents are often primed by the article before they answer any opinion questions. Similar design structures have often been done with DACA- and DREAM Act-related topics, and on immigration in general. I suggest scholars attempt to present varying policy descriptions to respondents, some with more details or variations in rhetoric, then ask the respondent's opinion on the policy. Such a format would offer potential insight into how simple word variants or extra details affect opinion. This could

be influential to survey designers as they attempt to craft standardized statements, as well as policy curators and researchers studying bill popularity.

Though the results of this study are influential, especially in affecting survey designs used by the CCES and similar large studies, the limitations of the design must also be noted. One of the key factors making this study difficult to compare to the CCES is the difference in sample size and diversity. The CCES is the first “large-scale academic survey project aimed at studying the midterm Congressional elections” (Harvard, 2020). One of the most important elements to the survey’s wide-scale success is that their large simple random sample is stratified by state and district. In 2016, the CCES collected survey results from 64,600 participants. To create their sample, they used two sampling frames of U.S. citizens from the 2012 and 2010 American Community survey in order to create a target sample stratified by age, race, gender, education, and voter registration (Harvard, 2016). The sample is drawn from YouGov and then further refined through entropy balancing, which reduces representative inequalities in the sample to ideally match state and district breakdown demographics (Harvard, 2020; Hainmueller, 2012). Simply put, the CCES works hard to ensure their sample population is equally representative in order to make their survey optimized for use in congressional, state, and national politics.

The small, independent experimental survey outlined in this paper does not have the same goals as the CCES - ours is to test survey designs to find which is most conducive overall, but especially for DACA, while the CCES aims to create a large dataset representative of the American political climate and population. Given this, our survey sample was far smaller and less diverse than the CCES with only 270 respondents

made representative through a simple randomization logistic. Due to the survey having five different treatments, the population receiving each treatment was even smaller, causing the polling sample for an individual design to range from 40 to 140 - only a fraction of the CCES size. There is a limitation in our polling numbers, and it is difficult to say if the various other survey designs would be as accurate when accessed by a sample over 50,000. Despite this, the difference in this paper's and the CCES' goals allow for data results on survey format productivity to remain informative for questionnaire designers in social science studies.

### **Conclusion:**

The findings of this paper speak to the importance of survey design, especially when collecting public opinion data on immigration issues. The produced results and analysis provide clarification on an ongoing survey format debate concerning the use of a "select all that apply" matrix (Smyth et al., 2006; Dillman et al., 2004; Callegaro et al., 2015). We find that the "select all" matrix model offers too many policy options, while also requiring respondents to voluntarily evaluate each statement. Through the experimental design presented, more reliable data collection methods were produced by using a forced choice yes/no model and also by using single-style questions, instead of a multi-part matrix model.

Though the experimental design and results of this paper offer conclusive answers to survey designers, activists, academics, politicians, and polling experts should still remain concerned over how child-related immigration policies are presented in the media *and* in surveys. When describing social issues, inclusive details, emphasis, and labeling have the potential to shape how a respondent interprets and cognitively interprets a

statement (Nelson, Clawson, & Oxley, 1997; Tversky & Kahneman, 1981). Framing effects have great implications for policy approval, yet these effects in terms of child immigration reform were only briefly expounded upon in the presented survey experiment. The results presented here were not able to provide any conclusive evidence that including eligibility requirements affected support levels.

In terms of labelling specificity, the 2016 CCES presented a statement similar to DACA and the DREAM Act, yet it did not exactly fit either policy due to vague wording. For future research, I recommend attempting to compare if more precise labels or mirrored descriptions to existent policies would garner different results from respondents. For example, when studying survey results on healthcare policies, Holl, Niederdeppe, and Schuldt (2018) found that most polling sites rarely referenced the Affordable Care Act (14.6%) by its true name, but rather referred to it in general terms, such as “health care law,” or “healthcare reform” (92%). It would be interesting to curate a study similar for DACA or the DREAM Act by statistically analyzing the frequency of word variants from a collection of polling sites. To extend such a study further, an experimental survey design could be conducted to test if the differing variants, such as using general terms versus policy titles, affect support levels.

In conclusion, the current study identifies an anomaly within the 2016 CCES polling results for a protective child immigration act and attempts to identify which survey format styles are most reliable to produce quality public opinion data. Conducting an experimental survey with various question formats, showcased that a “select all” matrix produces poor data results, while a forced-choice or single-style question tends to produce more standardized results, in terms of support levels for a DACA/DREAM Act

reminiscent policy. These results can help us to better understand the stability (or instability) of public opinion, as well as the importance of stylistic design in survey coordination.

## BIBLIOGRAPHY

- Agiesta, J. (2018, January 19). CNN poll: DACA not worth a shutdown, except to Democrats. Retrieved August 20, 2020, from <https://www.cnn.com/2018/01/19/politics/cnn-poll-shutdown-trump-immigration-daca/index.html>
- Albaum, G. (1997). The Likert Scale Revisited. *Market Research Society. Journal.*, 39(2), 1-21. doi:10.1177/147078539703900202
- American Immigration Council. (2019). How the United States Immigration System Works.
- Batalova, J., Hooker, S., & Capps, R. (2014). DACA at the Two-Year Mark: A National and State Profile of Youth Eligible and Applying for Deferred Action. *Migration Policy Institute.*
- Blinder, S., & Jeannet, A. M. (2018). The 'illegal' and the skilled: effects of media portrayals on perceptions of immigrants in Britain. *Journal of Ethnic and Migration Studies*, 44(9), 1444-1462.
- Bradburn, N. M. (1983). Response effects. *Handbook of survey research*, 1, 289-328.
- Brader, T., Valentino, N. A., & Suhay, E. (2008). What triggers public opposition to immigration? Anxiety, group cues, and immigration threat. *American Journal of Political Science*, 52(4), 959-978.
- Brewer, P. R., & Gross, K. (2005). Values, framing, and citizens' thoughts about policy issues: Effects on content and quantity. *Political Psychology*, 26(6), 929-948.
- Burns, P., & Gimpel, J. G. (2000). Economic insecurity, prejudicial stereotypes, and public opinion on immigration policy. *Political science quarterly*, 115(2), 201-225.
- Callegaro, M., Murakami, M. H., Tepman, Z., & Henderson, V. (2015). Yes–no Answers versus Check-all in Self-Administered Modes: A Systematic Review and Analyses. *International Journal of Market Research*, 57(2), 203-224.
- CCES. (2016-2020). Cooperative Congressional Election Study. Retrieved August 20, 2020, from <https://cces.gov.harvard.edu/>

Chang, L. (1994). A psychometric evaluation of 4-point and 6-point Likert-type scales in relation to reliability and validity. *Applied psychological measurement, 18*(3), 205-215.

Chavez, L. (2013). *The Latino threat: Constructing immigrants, citizens, and the nation*. Stanford University Press.

Chavez, L. R. (2001). *Covering immigration: Popular images and the politics of the nation* (pp. 176-92). Berkeley: University of California Press.

Chavez, L. R. (2008). The Latino Threat: Constructing Immigrants. *Citizens, and the Nation*.

Chong, D., & Druckman, J. N. (2007). Framing theory. *Annu. Rev. Polit. Sci., 10*, 103-126.

Chyung, S. Y., Roberts, K., Swanson, I., & Hankinson, A. (2017). Evidence-based survey design: The use of a midpoint on the Likert scale. *Performance Improvement, 56*(10), 15-23.

Converse, P. E. (2006). The nature of belief systems in mass publics (1964). *Critical review, 18*(1-3), 1-74.

Cook, C., Heath, F., & Thompson, R. L. (2000). A meta-analysis of response rates in web-or internet-based surveys. *Educational and psychological measurement, 60*(6), 821-836.

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in experimental social psychology, 40*, 61-149.

Cummins, R. A., & Gullone, E. (2000, March). Why we should not use 5-point Likert scales: The case for subjective quality of life measurement. In *Proceedings, second international conference on quality of life in cities* (Vol. 74, p. 93).

Dawes, J. (2008). Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. *International journal of market research, 50*(1), 61-104.

- Deutskens, E., De Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing letters*, 15(1), 21-36.
- Doherty, C. (2018). Americans broadly support legal status for immigrants brought to the US illegally as children. Pew Fact Tank. June, 18.
- Edwards, P., Roberts, I., Clarke, M., DiGuseppi, C., Pratap, S., Wentz, R., & Kwan, I. (2002). Increasing response rates to postal questionnaires: systematic review. *Bmj*, 324(7347), 1183.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm.
- Flores Ph D, W. V. (2016). Undocumented and Unafraid: The Emergence of an Undocumented Movement and Its Impact on Immigration Policy, the DREAM Act, DACA, DAPA, and Family Unification. *Journal of Family Strengths*, 16(1), 3.
- Gaddis, S. E. (1998, June). How to design online surveys. *Training & Development*, 52(6), 67+.
- Galesic, M., & Bosnjak, M. (2009). Effects of questionnaire length on participation and indicators of response quality in a web survey. *Public opinion quarterly*, 73(2), 349-360.
- Gonzalez, E. (2019). Stereotypical depictions of Latino criminality: US Latinos in the media during the MAGA campaign. *Democratic Communiqué*, 28(1), 46-46.
- Hammond, R. A., & Axelrod, R. (2006). The evolution of ethnocentrism. *Journal of conflict resolution*, 50(6), 926-936.
- Heberlein, T. A., & Baumgartner, R. (1978). Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature. *American sociological review*, 447-462.
- Hipsman, F., Gómez-Aguiaga, B., & Capps, R. (2016). DACA at Four: Participation in the Deferred Action Program and Impacts on Recipients.”. Notes, 1(398,000), 228-000.
- Huang, K. S. (1996). In search of the factors conditioning framing effect: The case of the Hill-Thomas controversy.



Kam, C. D., & Kinder, D. R. (2012). Ethnocentrism as a short-term force in the 2008 American presidential election. *American Journal of Political Science*, 56(2), 326-340.

Konitzer, T. B., Iyengar, S., Valentino, N. A., Soroka, S., & Duch, R. M. (2019). Ethnocentrism versus group-specific stereotyping in immigration opinion: cross-national evidence on the distinctiveness of immigrant groups. *Journal of Ethnic and Migration Studies*, 45(7), 1051-1074.

Krosnick, J. A. (1991). Response strategies for coping with the cognitive demands of attitude measures in surveys. *Applied cognitive psychology*, 5(3), 213-236.

Krosnick, J. A. (1992). The impact of cognitive sophistication and attitude importance on response-order and question-order effects. In *Context effects in social and psychological research* (pp. 203-218). Springer, New York, NY.

Kumar, A. (2020, June 17). Poll: Trump voters want to protect Dreamers. Retrieved August 18, 2020, from <https://www.politico.com/news/2020/06/17/trump-supporters-dreamers-poll-323432>

Lauby, F. (2016). Leaving the 'perfect DREAMer' behind? Narratives and mobilization in immigration reform. *Social Movement Studies*, 15(4), 374-387.

Lee, T. L., & Fiske, S. T. (2006). Not an outgroup, not yet an ingroup: Immigrants in the stereotype content model. *International Journal of Intercultural Relations*, 30(6), 751-768.

Leung, S. O. (2011). A comparison of psychometric properties and normality in 4-, 5-, 6-, and 11-point Likert scales. *Journal of Social Service Research*, 37(4), 412-421.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of psychology*.

Matthes, J. (2009). What's in a frame? A content analysis of media framing studies in the world's leading communication journals, 1990-2005. *Journalism & Mass Communication Quarterly*, 86(2), 349-367.

McGowen, R. (2006). *The many colors of crime: Inequalities of race, ethnicity, and crime in America* (Vol. 2). NYU press.

National Immigration Forum. (2019, June 04). American Dream and Promise Act: Bill Summary. Retrieved August 20, 2020, from <https://immigrationforum.org/article/american-dream-and-promise-act-bill-summary/>

Nelson, T. E., Clawson, R. A., & Oxley, Z. M. (1997). Media framing of a civil liberties conflict and its effect on tolerance. *American Political Science Review*, 567-583.

Nicholls, W. J. (2013). *The DREAMers: How the undocumented youth movement transformed the immigrant rights debate*. Stanford, CA: Stanford University Press.

Nicolaas, G., Campanelli, P., Hope, S., Jäckle, A., & Lynn, P. (2015, December). Revisiting "yes/no" versus "check all that apply": Results from a mixed modes experiment. In *Survey Research Methods* (Vol. 9, No. 3, pp. 189-204).

Patler, C., & Gonzales, R. G. (2015). Framing citizenship: Media coverage of anti-deportation cases led by undocumented immigrant youth organisations. *Journal of Ethnic and Migration Studies*, 41(9), 1453-1474.

Preston, C. C., & Colman, A. M. (2000). Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences. *Acta psychologica*, 104(1), 1-15.

Quinnipiac University Polls. (2018). *January 11, 2018 - Dreamers Should Stay, American Voters Say 8-1, Quinnipiac University National Poll Finds; Do Not Enforce Federal Pot Laws, U.S. Voters Say 3-1* [Data set]. Retrieved from <https://poll.qu.edu/national/release-detail?ReleaseID=2512>

Rachman, A., & Yuniarti, S. (2017). Critical discourse analysis in Donald Trump presidential campaign to win American's heart. *TELL*, 5(2), 8-17.

Rendon, H., de Moya, M., & Johnson, M. A. (2019). "Dreamers" or threat: Bilingual frame building of DACA immigrants. *Newspaper Research Journal*, 40(1), 7-24.

Rendon, H., de Moya, M., & Johnson, M. A. (2019). "Dreamers" or threat: Bilingual frame building of DACA immigrants. *Newspaper Research Journal*, 40(1), 7-24.

Rolstad, S., Adler, J., & Rydén, A. (2011). Response burden and questionnaire length: is shorter better? A review and meta-analysis. *Value in Health*, 14(8), 1101-1108.

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of communication*, 49(1), 103-122.

Schuman, H., & Presser, S. (1981). Questions and answers: Experiments on question form, wording, and context in attitude surveys. *New York: Academic*.

Sides, J., Tesler, M., & Vavreck, L. (2018). Hunting where the ducks are: Activating support for Donald Trump in the 2016 Republican primary. *Journal of Elections, Public Opinion and Parties*, 28(2), 135-156.

Singer, Eleanor. "Informed consent: Consequences for response rate and response quality in social surveys." *American Sociological Review* (1978): 144-162.

Smyth, J. D., Christian, L. M., & Dillman, D. A. (2008). Does "yes or no" on the telephone mean the same as "check-all-that-apply" on the web?. *Public Opinion Quarterly*, 72(1), 103-113.

Smyth, J. D., Dillman, D. A., Christian, L. M., & Stern, M. J. (2006). Comparing check-all and forced-choice question formats in web surveys. *Public Opinion Quarterly*, 70(1), 66-77.

Stalans, L. J. (2012). Frames, framing effects, and survey responses. In *Handbook of survey methodology for the social sciences* (pp. 75-90). Springer, New York, NY.

Stewart, C. O., Pitts, M. J., & Osborne, H. (2011). Mediated intergroup conflict: The discursive construction of "illegal immigrants" in a regional US newspaper. *Journal of language and social psychology*, 30(1), 8-27.

Sudman, S., & Bradburn, N. M. (1982). *Asking questions*. Jossey-Bass Inc Pub.

Sudman, S., Bradburn, N. M., & Schwarz, N. Thinking About Answers: The Application of Cognitive Process to Survey Methodology. 1996. *San Francisco, CA, US: Jossey-Bass*.

Tani, M. (2014). Using a point system for selecting immigrants. *IZA World of Labor*.

Tourangeau, R., & Rasinski, K. A. (1988). Cognitive processes underlying context effects in attitude measurement. *Psychological bulletin*, 103(3), 299.

Tourangeau, R., Rasinski, K. A., Bradburn, N., & D'Andrade, R. (1989). Belief accessibility and context effects in attitude measurement. *Journal of Experimental Social Psychology*, 25(5), 401-421.

Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *science*, 211(4481), 453-458.

U.S. Senate, House - Judiciary; Education and Labor. (2019). American Dream and Promise Act of 2019 (pp. 1-72) (L. Roybal-Allard, Author) [S. H.R. 6 from 116th Cong., 1st sess.]. Washington, DC: CRS.

Valentino, N. A., Brader, T., & Jardina, A. E. (2013). Immigration opposition among US Whites: General ethnocentrism or media priming of attitudes about Latinos?. *Political Psychology*, 34(2), 149-166.

van Londen, M., Coenders, M., & Scheepers, P. (2010). Effects of issue frames on aversion to ethnic-targeted school policies. *Methodology*.

Vehovar, V., & Manfreda, K. L. (2008). Overview: online surveys. *The SAGE handbook of online research methods*, 1.

Walston, J. T., Lissitz, R. W., & Rudner, L. M. (2006). The influence of web-based questionnaire presentation variations on survey cooperation and perceptions of survey quality. *Journal of Official Statistics*, 22(2), 271.

Wei, K., Booth, J., & Fusco, R. (2019). Cognitive and Emotional Outcomes of Latino Threat Narratives in News Media: An Exploratory Study. *Journal of the Society for Social Work and Research*, 10(2), 213-236.

Wright, B., & Schwager, P. H. (2008). Online survey research: can response factors be improved?. *Journal of Internet Commerce*, 7(2), 253-269.

Yammarino, F. J., Skinner, S. J., & Childers, T. L. (1991). Understanding mail survey response behavior a meta-analysis. *Public Opinion Quarterly*, 55(4), 613-639.

Zaller, J. (1990). Political awareness, elite opinion leadership, and the mass survey response. *Social Cognition*, 8(1), 125-153.

Zaller, J., & Feldman, S. (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American journal of political science*, 579-616.

Zaller, John R. *The nature and origins of mass opinion*. Cambridge university press, 1992.