Examining the Link Between Issue Attitudes and News Source: The Case of Latinos and Immigration Reform

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Abstract This paper explores whether an individual's news source can explain their attitudes on immigration. We focus on the Spanish-speaking population in the U.S., since they have the option of accessing their news in English, Spanish or in both languages. Our *audience influence hypothesis* predicts that Spanish-language news will cover immigration in a more positive and informative manner than will English-language news. Thus, Latinos who use Spanish-language news may have a higher likelihood of possessing pro-immigrant sentiments than Latinos who only use English-language news. Content analysis of Spanish and English-language television news segments reveals variations in the tone and substance of these news outlets. Analysis of Latino survey respondents indicates that immigration attitudes vary by news source. Generational status also influences Latinos' immigration attitudes, though its impact is not as great as one's news source.

Keywords Immigration · Latinos · Public opinion · Media

Introduction

Increasingly individuals can access a wide array of media sources, from network and soft television news to local and national newspapers, cable news programs and the internet (Branton and Dunaway 2006, Baum 2003; Prior 2005). But beyond these choices, the growth of specialized news sources, e.g. ethnic-language news or ideologically driven cable news programs, provide individuals with an even greater

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spectrum of news sources to choose from. Nowhere is this choice more relevant than for Spanish-speakers in the U.S., who have the option to receive their news in English, Spanish, or in both languages. For Latinos, who currently comprise 14.5% of the U.S. population (U.S. Census 2004), more than 700 U.S. produced Spanish-language radio stations and newspapers, as well as six major Spanish-language television stations are available to them as either an additional or alternative source of information to English news sources (Chura 2005).[1] To demonstrate the breadth of this media outlet, the two largest Spanish-language television stations, *Univision* and *Telemundo*, reach out to more than 86% of U.S. Latinos and provide nightly news coverage that mirrors the format of English news programs (Rodriguez 1999; Reynolds et al. 2005).[2] As a result, Latinos in the U.S. can receive their information in: (1) Spanish; (2) both in Spanish and in English; (3) English. With the rise of specialized news sources that cater to a particular group of individuals, an opportunity exists to examine whether differences emerge in the way specialized versus mainstream news sources frame and discuss public policies. Concerns over these potential distinctions are important because the news can influence what issues individuals should think about or consider to be the most important (Iyengar and Kinder 1987), and it also enables them to learn about political issues (Alvarez 1997; Just et al. 1996, Zhao and Chafee 1995), as well.

This paper explores whether: (1) distinctions exist in the way English and Spanish language news cover and discuss issues, and (2) whether one's source for news helps to explain their policy views and beliefs. Our focus on the Spanish-speaking electorate in the U.S. leads us to examine an issue most often associated with Latinos—that of immigration. We concentrate specifically on the most current topic in the immigration debate—Bush's original proposal for a guest worker program and the alternative plan put forth by the Democrats.[3] In brief, Bush's proposal would allow immigrants to legally work in the U.S. for a number of years and freely return to their country of origin, with no provisions for amnesty or legal status. The alternative proposal, sponsored by the Democrats, would make allow immigrants to acquire legal status after working in the U.S. for several years.

To be clear, *where* Latinos receive their news is crucial not because of the actual language of communication, but because the source (English or Spanish) is indicative of the goals of the news organization, and their subsequent decisions on how to discuss a particular issue. We expect both Spanish and English-language television news to be motivated by an economic theory of news making, which posits that the content of the news will be geared towards viewers who are most attractive to advertisers, their target audiences will vary (Hamilton 2004). Although the target audience for the Spanish and English-language news may be similar from a demographic standpoint, what "sells" in the way immigration is presented in

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[1] Note that for many Latinos, this is not necessarily a choice, given that the foreign-born population may not be proficient enough in English to use English news sources, while second and third generation Latinos may only speak English.

[2] This phenomenon becomes even more of an issue when we consider that Latinos will comprise 25% of the U.S. population by 2020.

[3] The survey data we use, from the Pew Latino Center, was collected a month after Bush announced his proposal in 2004.

Spanish-language news will not be the same in English-language news. Thus, the *audience influence hypothesis* predicts that: (1) Spanish-language news will cover immigration in a more positive and informative manner than will English-language news; (2) Latinos who only use Spanish-language news may therefore have a greater likelihood of possessing pro-immigrant sentiments than do Latinos who only use English-language news. But a Latino's period of time in the U.S. (as measured by their generational status) has been found to impact not only their political behavior (Alvarez and Bedolla 2003; Barreto 2005; Leal 2002), but also their opinions towards immigration (Branton 2007; Alvarez and Butterfield 2000; Garcia Bedolla 2005; Hood et al. 1997). Thus, the *generational status hypothesis* expects second and third generation Latinos to favor tougher immigration policies and be less aware of new immigration proposals than would first generation Latinos. These later generation Latinos should be the ones most integrated and assimilated into U.S. society, therefore adopting the policy views of the majority of Americans.

We first perform a content analysis of Spanish and English-language television news segments to test the first prediction from the *audience influence hypothesis*. This analysis allows us to determine whether distinctions exist in the way Spanish and English news organizations cover the Bush proposal and immigration in general. Next, we analyze a representative, nationwide telephone survey of Latinos' media preferences, in order to understand whether a Latino's source for news and their generational status can explain their immigration opinions and beliefs. To address concerns that a Latino's decision to use Spanish or English news influences their immigration attitudes, we employ a simultaneous equations model to estimate the data, using language preference and levels of group identity and consciousness as proxies for news source.

Theory and Literature

The relationship between the news media and public opinion has been the topic of much research. Early work by Patterson and McClure (1976) concluded that television news had a very small impact on voters' political views. But subsequent research by Bower (1985) found television news to be more informative than newspapers, the radio and magazines. In particular, research has shown the ability of television news to "prime" audiences into thinking about certain issues and events (Cohen 1963; Iyengar and Kinder 1987). So while television news may not be overtly altering individuals' opinions and beliefs, it has the ability to influence how voters rank which issues are most important to them (Iyengar and Kinder 1987) and depending on how news stories are "framed" and presented, it can also prime voters' evaluations of political leaders and issues (Iyengar and Kinder 1987; Iyengar 1991). For example, a news segment that focuses on the illegal nature of immigration can prime individuals to only think of immigration reform from this perspective.

Agenda setting, the process in which news organizations focus on certain issues more than others, can affect what issues individuals think about and from what perspective it should be viewed in (Baumgartner and Jones 1995; Zaller 1992;

Mutz 1995). Iyengar and Kinder's (1991) work in this area provides a comprehensive test of the agenda setting hypothesis: "those problems that receive prominent attention on the national news become the problems the viewing public regards as the nation's most important" (p. 16). Both an experimental setting as well time-series data provide strong support for this argument; which issues the news media cover and emphasize impacts the issues and policies that individuals consider.

For this research, understanding the mechanics behind framing is particularly important. Framing refers to the way an issue is discussed and presented in a news segment, and calls on news organizations and journalists to decide how an issue is defined. They can also make some aspects of an issue more salient than others, as well as advocate or make moral evaluations about an issue (Nelson et al. 1997). Framing is important because it can prime the public's opinions and attitudes on issues (Iyengar 1991; Entman 1993; Nelson et al. 1997; Jacoby 2000). One way issues can be framed is from a "group-centric" perspective and is advantageous when an issue or public policy specifically deals with a particular group, (e.g crime, welfare and affirmative action). Nelson and Kinder (1996) find that frames which focus on the groups associated with the issue, such as Blacks and affirmative action, lead individuals to think about their attitudes towards the particular group, rather than on the actual policy being addressed. So if immigration is framed in a way that only focuses on Latinos (and not immigrants in general), it may cause individuals to think about Bush's immigration reform in terms of their attitudes and opinions towards Latinos; this would shift the emphasis away from evaluating the policy proposal itself and transfer it to their opinions on Latinos. Thus, depending on how the news organization frames the immigration issue, then the standards by which an individual judges this particular issue may also change.

Clearly, news organizations have the ability to frame and discuss issues in a variety of ways, but before doing so, they must first decide which issues to cover on the nightly news. Although the production of news is a complex process, most news organizations are motivated by profit. The *economic theory of news making* views the news as an information commodity driven by market forces (Hamilton 2004). And since the news organizations' profits stem from advertisers (McManus 1994; Hamilton 2004) , the content of the news should be geared towards the target audience that is the most appealing to its advertisers. For instance, the target audience for the evening news is comprised of females between the ages of 18–34, instead of those who actually watch news at the highest rates (those over the age of 50). Hamilton (2004) provides empirical support for the economic theory by demonstrating that the network evening news focuses on stories that younger viewers would pay attention to as opposed to ones that their older viewing audience would be interested in.

In light of this, English-language news organizations are motivated to frame immigration in a manner that its target audience will most likely respond to. These economic incentives have caused news organization to follow a "crime news script" when reporting issues, especially when news stories feature racial and ethnic minorities (Gilliam et al. 1996; Gilliam and Iyengar 2000; Gilliam et al. 2002). In the coverage of these crime news segments, non-whites are typically

portrayed not as the victims of the crime, but rather as the perpetrators (Iyengar 1982). Crime news scripts also frame minorities in a group-centric manner, which may cause individuals to evaluate the issue based on their attitudes towards minority groups instead of the issue at hand. Although most of these conclusions have been reached with respect to the general issue of crime and African-Americans, illegal immigration can also be considered a crime, since illegal immigrants are violating immigration laws. Research by the National Association of Hispanic Journalists (NAHJ) provide support for this claim; of the 115 news stories in 2004 that focused on Latinos, 31 of them (27%) featured immigrants and in particular, illegal immigrants.[4] This type of coverage is not atypical; over the past ten years, more than one-third of the Latino-based news stories focused on immigrants and the issue of crime (NAHJ). Coupled with the fact that crime is the second most important issue for networks news' target audience (Hamilton 2004), English-language news organizations have a strong incentive to discuss immigration in this way.

While Spanish news organizations are also motivated by profits and therefore have the same economic incentive structure as English news organizations, we do not expect immigration to be discussed in the same manner as in English-language news for several reasons.[5] First, even if the target demographic group is comprised of females between the ages of 18–34, these individuals are of Latino descent, which means that they have no desire to be portrayed as criminals or perpetrators. In addition, many of these individuals are either immigrants themselves or came from families with an immigrant background.[6] It would therefore be highly unlikely and irrational for Spanish-language news organizations to focus on the illegalities and criminal aspects of immigration. The *audience influence hypothesis* expects immigration to be covered in a more positive and informative manner in Spanish than in the English-language news, not only because the issue is salient for its viewers, but also since many of their viewers may be in need of information.[7] As Rodriguez (1999) points out, much of the immigration coverage in Spanish-language television news segments are supplemented with interviews from immigration lawyers, toll-free numbers providing informative details on a proposed immigration law, as well as information on agencies that specialize in immigration (Rodriguez 1999).

Journalists working in the Spanish news organizations may have an additional set of goals that would cause them to behave according to, what Graber (2006) calls, the civic journalism model of news making. A series of in-depth interviews conducted by Rodriguez (1999), indicates that the notion of "objectivity" takes on a different

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[4] Refer to "Network Brownout Report 2005: The Portrayal of Latinos and Latino Issues on Network Television News, 2004 with a retrospect to 1995." http://www.nahj.org/resources/networkbrownoutreports/brownoutreports.shtml.

[5] This is not to discount that Spanish-language news may also follow the "crime news script", but just not on the issue of immigration.

[6] We have no available data to determine whether this is the same demographic group for the Spanish-language viewing audience.

[7] Relatedly, Branton and Dunaway (forthcoming) find that English language newspapers are more likely to offer negatively slanted coverage of immigration relative to Spanish language newspapers.

meaning in the production of Spanish language news. Gustavo Mayo, founder of the
first U.S. Spanish-language news program, feels that "those who make news
specifically for Latinos are 'by definition' advocates for Latino communities." In
addition, a 2004 survey conducted by the National Association of Hispanic
Journalists of more than 400 Latino journalists working in Spanish media provide
some systematic support for these attitudes; the survey results indicate that one of
the main factors motivating journalists and managers to join a Latino news
organization was based on "a desire to inform and educate and inform their
community" as well as a "desire to serve and change the situation of the Latino
community" (p. 5).[8] It appears, then, that Latino journalists see themselves as
"advocates" for the Latino community. While it can also be said that English news
also conveys information to reflect the American experience, when it pertains to
immigration, this issue may be covered by Spanish news organizations in a distinct
manner due to both economic and civic incentives.

   Along with the possibility that one's news source can help to explain Latino
public opinion, the *generational status hypothesis* predicts that one's immigration
attitudes can also be explained by the extent to which they have integrated
themselves into U.S. society. Those who are second and third generation Latinos
may be less supportive of immigration policies that would ease immigration laws
than would foreign-born Latinos. Because these later generation Latinos are the
ones who should be most integrated and assimilated into U.S. society, they may
possess the policy views of the dominant society. Second and third generation
immigrants are also likely to demonstrate "selective dissociation", where they
maintain their identity but try to exclude those within the group that they believe are
perpetuating a negative image (Garcia Bedolla 2005) and also tend to favor more
restrictive immigration policies (de la Garza 1992; Hood et al. 1997). In this case,
the negative image could be one of new or illegal immigrants taking jobs from
native born workers, which may induce third generation Latinos to dissociate
themselves from these newer immigrants.

   Latinos who are more acculturated into U.S. society may also fail to believe that
any commonalities exist between themselves and more recent immigrants, therefore
making them unlikely to support an easing in immigration policies. Hood et al.
(1997) find this to be the case; they also note that Latinos who view undocumented
immigrants as an economic threat and/or live in communities with a large
undocumented population are also less supportive of liberal immigration policies. In
contrast, first generation Latinos tend to report a greater level of interest in politics,
especially regarding policies that are relevant to them (e.g. Proposition 187 in CA),
when compared to second and third generation Latinos (Garcia Bedolla 2005). So in
addition to a Latino's source for news, their immigration attitudes may also be
explained by their generational status. Therefore, these two hypotheses should not
be viewed as mutually exclusive from one another, since news source and
generational status could both explain Latinos' opinions on immigration.

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[8] The survey is available at:http://www.nahj.org/nahjnews/articles/2004/august/spanish-languagesurvey
080704.shtml.

Content Analysis of Spanish and English News Broadcasts

The first step to testing the *audience influence hypothesis* is to examine how Spanish and English news organizations discuss the immigration proposal. Again, we expect Spanish-language news organizations to discuss immigration in a more favorable manner than will English news organizations. Our content analysis focuses on Spanish and English-language television news segments, as opposed to newspapers or radio, since the survey used for this research, the Pew Survey of Latinos in the News Media (2004), reveals that 88% of the Latinos interviewed turn to national network news for information and an almost equal percent, 84%, use local news. Following television news, the source most frequently used by Latinos are newspapers, but only 57% report using it as their preferred source for information. Moreover, Nielsen reports that of the major ethnic and racial groups in the U.S., Latino households watch the most; Latinos watch about 17 h a week of television, whereas the average U.S. household watches 13 h a week of television.[9] Currently, there are 10.91 million Latino television households in the U.S., with almost half, 5.06 million, being Spanish-dominant households, which means that Spanish or mostly Spanish is spoken in these homes.[10]

To coincide with the Pew survey, we examine news coverage of the immigration proposal for the period beginning with Bush's announcement of his guest worker proposal on January 7, 2004 to February 15, 2004, the date when the Pew Latino survey commenced. The television news transcripts are from the Video Monitoring Services of America.[11] The coverage is quite comprehensive, and includes all national (ABC, NBC, CBS, FOX, PBS) news programs (i.e., *World News Tonight*, *Dateline*) plus local news coverage spanning more than 40 media markets.[12] The Spanish news transcripts are available for the two largest network stations, *Univision* and *Telemundo*, as well as *CNN EE*, *Mun2*, and *Galavision*. Local Spanish-language news transcripts are available for the media markets in Chicago, Dallas, Denver, Hartford, Houston, Los Angeles, Miami, New York, Phoenix, San Antonio, San Diego, San Francisco, Tucson and Washington. Although this is not an exhaustive list of all the local Spanish-language television news outlets in the U.S., they comprise all the available transcripts from our database. These media markets,

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[9] http://www.nielsenmedia.com/ethnicmeasure/Latino-american/hispprimetime05.htm.

[10] http://www.nielsenmedia.com/ethnicmeasure/Latino-american/.

[11] This database was accessed using lexis-nexis.com. We searched for the terms "immigration", "proposal" and/or "reform".

[12] The following are the local media markets covered: New York, Los Angeles, Chicago, Philadelphia, San Francisco-Oakland-San Jose, Boston, MA (Manchester, NH), Dallas-Ft. Worth, Washington, DC (Hagerstown, MD), Atlanta, Detroit, Houston, Seattle-Tacoma, Tampa-St. Petersburg (Sarasota), Minneapolis-St. Paul, Phoenix, Miami-Ft. Lauderdale, Cleveland-Akron (Canton), Denver, Sacramento-Stockton-Modesto, Orlando-Daytona Beach-Melbourne, St. Louis, Pittsburgh, Baltimore, Portland, Indianapolis, San Diego, Hartford & New Haven, Charlotte, Raleigh-Durham (Fayetteville), Nashville, Kansas City, Milwaukee, Cincinnati, Columbus, New Orleans, Memphis, Oklahoma City, Buffalo, Albuquerque-Santa Fe, Louisville, Las Vegas, Austin, Tulsa, Lexington, KY. The length of each news segment transcript ranged from 1- 835 words, with transcripts having only 1 word being "teasers" to the actual news broadcast.

however, cover the majority of the media markets with large concentrations of Latinos in the U.S.

Altogether, 565 television news segments discussed the immigration proposal during this time period and the average length of these news segments (measured by the number of words) is greater for those produced in Spanish, 44.7, than those in English, 40.7. The news program where the proposal was most frequently discussed was "Noticias", which is the Spanish-language news program broadcasted nationally, and the overwhelming majority of these news broadcasts were aired on the day that Bush announced the proposal (January 7) and the following day.[13]

The content of each news segment is then coded according to the theoretical expectation that because the audience of Spanish and English-language news organizations differ, coverage of immigration will also vary.[14] First, the tone of the news segment is coded for, with coverage taking a positive, neutral or negative position on Bush's proposal.[15] A negative immigration tone is defined as a news segment in which either the journalist or an individual interviewed in the segment discusses immigration in a detrimental way (e.g. "the proposed reform would increase crime rates" or the reform "rewards those who break the law.") A neutral position is defined as a news segment that explains the proposed immigration reform (for either Bush, the Democrats or both) and provides no commentary or supplementary interviews. Finally, news stories with positive coverage are those where the journalist or individual interviewed discuss the immigration proposal as beneficial to the American economy or where additional resources (e.g toll-free numbers, local immigration agencies) are provided to viewers. Another way to determine whether Spanish-language news covers immigration in a more informative manner than English-language news is to code for instances when the news segment only mentioned Bush's proposal or if it also mentioned the Democrat's alternative plan. Because the Democrat's proposal included a provision that provides immigrants with legal status, Spanish-language news organizations may have a greater incentive to include this alternative plan in their coverage of Bush's immigration proposal than do the English-language news organizations. Moreover, offering viewers with both proposals would provide them a more complete picture of the immigration debate. The Democratic proposal would not only be of great interest to their target audience of Spanish speakers, but it may be directly salient to many of its viewers.

We also code for instances where Bush's immigration proposal is discussed as a political strategy to gain the support of Latino voters, as a way to determine whether group-centric frames were used. Such statements can be interpreted as group centric since it implies that Latinos are the only group associated with and potentially affected by this proposal. According to Nelson and Kinder (1997), this type of framing may shift the focus away from proposal itself and instead prime viewers to

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[13] More descriptive statistics are available from the authors.

[14] Refer to the appendix for the code book.

[15] We decided to code for the tone of the news segment, as opposed to whether the story discusses crime, since we do not expect Spanish-language news to cover this proposal from a criminal standpoint, based on the theoretical argument.

think collectively about Latinos and their opinions towards them. While Latinos would comprise the largest number of immigrants to be affected by this reform and are also the largest ethnic/racial group in the U.S. (whose political allegiance has yet to be decided), Chinese and Southeast Asian immigrants also have much at stake if these proposed changes took place.

Table 1 presents the distribution of the content of Spanish and English-language news. First, in comparing the number of times this story was covered, the national Spanish news programs discussed the proposal to a much greater extent than the English-language national news, 67 vs. 13 segments. Local news coverage was more even; 315 English news broadcasts and 174 Spanish news segments mentioned Bush's immigration proposal. In terms of content, note that *not a single* national English-language news segment discussed the Democrat's proposal either exclusively or along with the Bush proposal. In contrast, the Spanish news networks did choose to discuss the alternative proposal, albeit in only a very small number of their news stories; 4.2% had both and 2.8% featured just the Democratic proposal. While a slightly larger percentage of Spanish, as opposed to English, news segments provided information about both proposals, it is clear that the bulk of the stories concentrated solely on Bush's efforts at immigration reform. Thus our claim that Spanish news organizations may be motivated to provide more information about the immigration issue does not seem to be supported at least by the television news stories used in this analysis.

When examining the overall tone of the news segment, we see that irrespective of language and news type (local or national), the majority of news segments adopt a neutral tone. For example, 74.6% of Spanish and 92.3% of English national news segments are neutral in their discussion of immigration reform. But in comparing those stories where the tone of the piece was positive, both the national and local Spanish-language news segments have a greater tendency to discuss immigration in this manner than did the national and local English-language news segments. In fact, the national English news segments do not discuss any of their immigration stories from this perspective, whereas one out of every five (22.4%) of the local Spanish news segments take on a positive immigration tone. This discrepancy is less for local television news segments, though Spanish local news are still three times more likely to frame their immigration coverage in a positive way (15.2%) versus the local English news (5.5%). In terms of discussing immigration from a negative point of view, we see that English news segments do so at a higher rate than Spanish news segments. Here, 7.7% of the national English news stories were negative in its tone, compared to only 3% of national Spanish news. Finally, the decision to frame the immigration proposal in a group-centric manner occurs with greater frequency in the national English rather than in the national Spanish news broadcasts (6.7% vs. 2.8%). This difference is much smaller when we compare local television news segments, with 7.9% of English and 5.2% of Spanish discussing the immigration reforms as a political move on the part of Bush.

Overall, our content analysis provides a number of insights on the manner in which the Spanish and English news media covered the immigration reforms. First, we see that the content of these news stories primarily focused only on Bush's proposal, with very little news segments mentioning the Democratic proposal.

Table 1 Content of Spanish and English-language television news segments

News source	Proposal mentioned[a]			Tone of news segment[b]			Proposal is politically motivated[c]	N
	Bush	Democrats	Both	Pro-immigration	Neutral	Anti-immigration		
Spanish								
National TV	90.1	2.8	4.2	22.4	74.6	3.0	2.8	67
Local TV	93.6	2.9	2.9	15.2	83.6	1.2	5.2	174
English								
National TV	100	0.0	0.0	0.0	92.3	7.7	6.7	13
Local TV	99.1	0.3	0.3	5.5	92.5	2.0	7.9	315

[a] News segments were coded as those mentioning Bush's immigration proposal, the Democrat's immigration proposal, or both proposals. [b] Denotes the overall tone of the news segment towards immigration reform (anti, pro, or neutral). [c] Denotes whether the news segment discussed immigration as a means to gain the support of Latinos. A more detailed explanation of these categories is available in the appendix

Entries in columns 2–8 are row percentages

A χ^2 test was calculated for each of the bivariate distributions (28 total); for each of these distributions, the χ^2 test statistic was statistically significant at the $p = .01$ level

Second, it appears that news organizations generally adopt a neutral tone in their coverage of this issue; but when taking a non-neutral position, either in the form of positive or negative tone, we see a larger percentage of Spanish, rather than English, news organizations adopting a positive view. Television news segments that are negative in its tone are concentrate more so in English than in the Spanish news stories. And finally, we see moderate support for the claim that group-centered frames tend to be more prevalent in English rather than in Spanish news segments.

Explaining Latinos' Attitudes on Immigration

The second prediction from the *audience influence hypothesis* explores whether one's news source can help to explain Latinos' views and opinions towards immigration. Due to some variations in the tone and content of the Spanish and English-language news segments, Latinos who only use Spanish news to be more sympathetic towards immigrants and more knowledgeable of the Bush proposal than Latinos who only rely on English-language news. In addition to news source, the *generational status hypothesis* expects first generation Latinos to possess more sympathetic attitudes towards immigrants than will second and third generation Latinos. We explore the amount of explanatory power that one's news source and generational status has on Latinos' immigration opinions by analyzing survey data gathered by the Pew Hispanic Center. This survey is a nationally representative sample of 1,316 Latinos and is advantageous in that its primary focus is on Latinos' news preferences, both in terms of language and news source (e.g. television news, newspapers, internet, etc).[16] It also includes several questions pertaining to the guest worker proposal as well as immigration more broadly. The distribution of respondents who were interviewed in Spanish and English was roughly equal; 645 respondents interviewed in English and 671 respondents interviewed in Spanish.

Our aim, as discussed at the onset of this paper, is not to draw any strong causal inferences on the impact of news source and issue attitudes, since the data that we use is cross-sectional in nature, therefore making it difficult to derive such conclusions. Instead our objective is to determine whether one's news source helps to explain their views on immigration, controlling for other factors such as one's educational attainment level, partisanship and generational status. Given that most of the survey data on this recent immigration proposal is cross-sectional, this is the best information available; though of course, having panel or experimental lab data that would allow us to make some stronger causal claims would have been ideal.

A potential concern in assessing whether a Latino's news source can help to explain their immigration attitudes is that individuals who use Spanish language news may do so because they are inherently more interested in the Latino perspective, possess a strong cultural identity, and/or believe that Spanish news

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[16] The sampling error was ±3.42 percent and the survey was performed by International Communications Research (ICR), Media, PA. The name of this survey "Changing Channels and Crisscrossing Cultures: A Survey of Latinos on the News Media." Access to the survey is available from http://www.pewshipanic.org.

coverage will be more sympathetic to immigrants and Latinos. As such, a simultaneous equations model is used.[17] Typically, an endogeneity problem such as this calls for a two-stage least squares estimation (Theil [1953](https://); Basmann [1957](https://)) but this technique requires that both the dependent variable and the endogenous variable be continuous. However, neither the endogenous variable, a Latino's source for news, is a continuous variable, nor are the variables capturing their views on immigration. As such, an endogenous switching model developed by Miranda and Rabe-Hesketh ([2005](https://)) is used, which can handle the non-linear nature of the data and the fact that the endogenous covariate is dichotomous.[18]

As a proxy for one's preferred source for news (English or Spanish news), we use the language they speak at home and work, the language in which the interview was conducted in, as well as their preferred language when reading a set of instructions. The language usage questions ask respondents whether they speak only English, more English than Spanish, both equally, more Spanish than English or only Spanish at home. This particular question is useful since it taps into a Latino's preferred language in both their home and work environment, which is particularly salient for bilingual Latinos. Thus if a bilingual Latino speaks Spanish at home, he/she may have a stronger sense of group identity than a bilingual Latino who speaks English at home or work. And the question pertaining to language preference for a set of instructions taps into a respondent's language ability, but is not related to their opinions on immigration. Finally, the language in which the interview was conducted provides us with yet another measure of one's language abilities. These questions are suitable proxies for their news source since they strongly predict whether a Latino uses Spanish, English or both news sources but at the same time, these variables are not strongly correlated with an individual's attitudes towards immigration.[19]

A Latino's source for news is operationalized as a dichotomous choice (English versus Spanish/ both versus English), instead of a categorical one (English, Spanish or both), since it was not possible to estimate a model with a discrete, unordered variable. As such, we estimate two models: model one estimates news source as English versus Spanish and model two estimates news source as both English and Spanish versus English. Below is the first stage of the simultaneous equations model:

$$Pr(\textbf{news\_source}_i) = \textbf{F}(\beta_{10} + \beta_{11} \, \textbf{language\_home}_i + \beta_{12} \, \textbf{language\_work}_i$$
$$+ \, \beta_{13} \, \textbf{language\_instructions}_i + \beta_{14} \, \textbf{language\_interview}_i$$
$$+ \, \beta_{15} \, \textbf{exogenous\_variables}_i + \varepsilon_i)$$

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[17] Newton ([1992](https://)) discusses a similar concern for newspaper use and voting in the 1983 and 1987 British elections.

[18] Refer to the appendix for the model specification. The endogenous switching model is from the Stata program gllamm (generalized linear latent and mixed models) (RabeHesketh [2004](https://)). In brief, gllamm can perform maximum-likelihood estimations for simultaneous equations with endogenous covariates. We use the 'wrapper' program, ssm, within the gllamm package. Miranda and Rabe-Hesketh ([2005](https://)) provide a detailed explanation of this program.

[19] For instance, the ρ between awareness of the proposal and language spoken at home is -0.15, and $-.07$ between awareness and language spoken at work.

- **news_source$_i$** indicates that the ith respondent uses Spanish-language news (in model 1)/ both Spanish and English news (in model 2), and takes the value 0 if the respondent uses English-language news.
- **language_home$_i$** indicates the ith respondent's language of choice at home.
- **language_work$_i$** indicates the ith respondent's language of choice at work.
- **instructions$_i$** indicates the ith respondent's language of choice when reading a set of instructions.
- **language_interview$_i$** indicates the language in which the ith respondent conducted the interview in.
- **exogenous_variables$_i$** indicates the set of excluded exogenous variables pertaining to the ith respondent's demographics, political attitudes, and levels of acculturation.
- ε_i is the random disturbance term.

The dependent variables in the second stage of the simultaneous equations model are measures of a respondent's familiarity with Bush's guest worker proposal as well as their opinions towards immigration. Specifically, they are: (1) whether they are aware of Bush's recent immigration proposal; (2) whether they support a proposal that would provide illegal immigrants the opportunity to receive legal status in the U.S.; (3) whether they believe that illegal immigration helps or hurts the U.S. economy by providing low-cost labor.[20]

The second stage equation control's for a respondent's political views, source for news, demographic characteristics, and levels of acculturation comprise the explanatory variables. We account for a respondent's political preferences based on their party affiliation: Democrat, Republican or Independent. Which party one chooses to identify with, either Democrat or Republican, can significantly influence their views on immigration, as the parties hold distinct positions on this issue (Nieman et al. 2006). The Republican party, and especially its ultra-conservative wing, is against more lax immigration laws, largely due to their traditional views of isolationism. On the other hand, Democrats are traditionally the party of ethnic and racial minorities, and thus immigrants (Cain and Uhlaner 1991). In addition to partisanship, we account for the respondent's interest in the news and levels of trust in the national government. Those who are very interested in the news should be more aware of the immigration proposal than those with less interest in the nightly news. And those who report great amounts of trust in the federal government should be more likely to support Bush's proposal than those with lower levels of trust. Both of these variables are categorical, ranging from high to low interest/trust.

We also control for the respondent's education level, income, ethnicity, and marital status. Three dummy variables are created to capture a Latino's level of education: those with no high school degree, those with a high school degree, and Latinos with some college education. The omitted education category comprises respondents with a college degree. Income is coded as a continuous variable, ranging from low to high. We also account for a Latino's ethnicity by creating three

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[20] The survey also asked respondents: "what do you think of a guest worker proposal?', with the responses being favor or oppose. However, because the question wording was ambiguous, we decided not to use this question.

dichotomous variables: Mexican, Cuban or Puerto Rican. The omitted category is comprised of respondents who identify themselves as other or South/Central Americans. Finally, we include a variable that indicates whether or not the respondent is married.

To test the *generational status hypothesis*, a respondent is categorized as either being first generation (first to arrive to the U.S.), second generation (born in the U.S., but parents were not), or third generation (born in the U.S. as well as parents). There is a good amount of variation in the respondents sampled, where 60.9% are first generation, 21% are second generation Latinos and 18.1% are third generation. Relatedly, we include other controls that according to Hood et al. (1997) could influence Latinos' immigration attitudes—area of residence and employment status.[21] If a respondent lives in a region where there is a large concentration of undocumented immigrants, this might have an impact on their immigration attitudes; and as Hood et al. (1997) suggest, its effect is often negative. The only residential indicator this survey provides is based on U.S. Census regions- south, west, northeast and north central. A dummy variable is created for each of these regions, and respondents who live in the western part of the U.S. serves as the baseline category. Moreover, those who are not employed may hold more negative perceptions towards undocumented immigrants and the issue of immigration in general, especially if they believe that immigrants take away jobs from Americans or perceive them as an economic threat. Thus, a dummy variable to indicate the respondent's employment status is also included on the right-hand side of the model. Below is the second stage of the model:

$$Pr(\textbf{Immigration}_i) = \textbf{F}(\beta_{20} + \beta_{21}\,\textbf{news\_source}_i + \beta_{22}\,\textbf{Political}_i$$
$$+ \beta_{23}\,\textbf{Demographics}_i + \beta_{24}\,\textbf{Acculturation}_i + \varepsilon_i)$$

where:

- **Immigration$_i$** indicates the *i*th respondent's immigration views.
- **news_source$_i$** is based on the first stage estimates of the simultaneous model.
- **Political$_i$** indicates the *i*th respondent's political attitudes.
- **Demographics$_i$** is the *i*th respondent's demographic characteristics.
- **Acculturation$_i$** captures the *i*th respondent's generational status.
- ε_i is the random disturbance term.

If the *audience influence hypothesis* is supported, a Latino's source for news should help to explain their views on immigration. In particular, Latinos who use Spanish language news should be more likely than those who use English use language news to be aware of Bush's immigration proposal, support a guest worker program with legal status, and believe that illegal immigration helps the economy. Since Latinos who use Spanish language television news are exposed to a more positive and informative view of immigration, they may be primed and persuaded in

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[21] We do not control for an individual's awareness of the Bush's proposal since a Latino's immigration attitudes should be relatively independent of their knowledge of the latest immigration proposal being debated in Congress. This is particularly the case with respect to their attitudes towards the impact of illegal immigration on the U.S. economy.

a direction that favors immigrants.[22] Latinos who use both English and Spanish news should also hold more favorable views towards immigrants than those Latinos who solely rely on English-language news sources.

Support for the *generational status hypothesis* would result in second and third generation Latinos having a lower likelihood than first generation Latinos of being aware of Bush's immigration proposal, supporting a guest worker program with legal status, and/or believing that illegal immigration helps the economy. Again, because later generations will be more likely to try to detach themselves from the community and potentially view undocumented immigrants as an economic threat, they should be less sympathetic to immigrants than first generation Latinos. It could be the case that both news source and generational status explain Latinos' opinions on immigration; our goal is to determine whether a Latino's source for news and their generational status most explains their knowledge of Bush's guest worker program as well as their opinions on immigration.

Findings

Before discussing the estimates from the simultaneous equation model, we present bivariate distributions of respondents' views on immigration, based on their news source, generational status, partisanship and ethnicity. Table 2 presents this information. First, it is clear that a relationship exists between one's news source and their knowledge of and opinions towards the immigration proposal. A greater percentage of respondents who only use Spanish language news are aware of Bush's guest worker proposal, support a guest worker program providing legal status, and believe that illegal immigration helps the economy, when compared to those who use both English and Spanish news or only English news. For instance, almost two-thirds of respondents who only use Spanish language news, 73.4%, support the guest worker program.[23] This number drops to 70.5% for those who use both Spanish and English language news and to 60.8% for respondents who watch English language news exclusively.[24]

Latinos' opinions also vary by their generational status; a greater percentage of first generation respondents support immigration policies and demonstrate a greater amount of knowledge regarding the Bush proposal than second and third generation respondents. For example, 86.2% of first generation respondents believe that illegal immigration is beneficial for the economy, while only 56% of third generation respondents hold this view. Moreover, a much greater percentage of first generation Latinos, 73.1%, are aware of Bush's guest worker proposal than are second and third generation Latinos (55.6% and 55.9% respectively). Turning to one's party identification, a greater percentage of Democrats (76.3%) and Independents (80%)

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[22] Ideally, we would have controlled for the number of times that a respondent could have been potentially exposed to a news segment discussing the immigration proposal, however we did not have the respondent's media market information. Thus, matching the survey respondents to the content analysis data was not possible.

[23] These differences are statistically significant at the $p = .01$ level.

[24] We only examine these three categories (Spanish, English, or both) since only 2.4% of respondents use all three news sources.

Table 2 Knowledge of and opinions on immigration issues

	Aware of Bush's proposal	Support guest worker with legal status	Illegal immig helps economy by providing low-cost labor
News source			
Spanish	73.4	95.6	90.3
Both	70.5	94.3	84.4
English	60.8	80.9	67.0
Generational status			
First generation	73.1	93.9	86.2
Second generation	55.6	82.3	67.9
Third generation	55.9	73.1	56.0
Partisanship			
Democrat	67.5	86.2	76.3
Republican	70.0	81.2	68.9
Independent	64.5	90.1	80.0
Something else	61.4	88.9	71.2
Ethnicity			
Mexican	67.3	88.9	79.8
Cuban	71.0	79.6	75.0
Puerto Rican	54.5	80.5	51.3
N	1292	1280	1243

Entries in columns 2–4 are row percentages and represent the proportion of voters with the particular characteristic who are aware of Bush's proposal, support a guest worker program that provides legal status, and believes that illegal immigration helps the economy

The χ^2 test statistic is statistically significant at the $p = .01$ level for all of the bivariate distributions except partisanship

believe that illegal immigration is helpful to the U.S. economy versus the percentage of Republicans with this view (68.9%). The same pattern is evident for their support of a guest worker program that includes a provision for legal status. These distributions are consistent with each party's position on immigration, given that Democrats tend to be more supportive of immigrants and minorities than are Republicans.

In terms of ethnicity, relative to Mexicans and Cubans, Puerto Ricans are the least aware of Bush's immigration proposal. Approximately 67.3% of Mexicans and 71% of Cubans are aware of Bush's proposal, but only 54.5% of Puerto Ricans are familiar with it. Puerto Ricans may be the least aware and supportive of immigration policies, since immigration is not a salient issue for them. Moreover, Puerto Ricans' views on illegal immigration differ considerably from those adopted by Mexicans and Cubans; only 51.3% of Puerto Ricans believe that illegal immigration helps the economy whereas 75% of Cubans and 79.8% of Mexicans hold this view towards illegal immigration. Again, this can most likely be attributed to the fact that immigration is not an important issue to Puerto Ricans, since they are U.S. citizens.

The second-stage estimates of the simultaneous equations model are presented in Tables 3 and 4.[25] The estimates in Table 3 compare respondents who use Spanish news, versus those who report only using English news sources, while the estimates presented in Table 4 compare respondents who use both English and Spanish news, relative to respondents who rely on English-language news.

Overall, the results confirm the *audience influence hypothesis*; where a Latino turns to for news can help to explain their knowledge of and attitudes towards immigration. The coefficients for the variables that capture a Latino's news source is statistically significant and signed in the expected direction for all three immigration questions; this is true for both of the models that we estimate. Thus, Latinos who only use Spanish language news are more likely than those who use English language news to be aware of Bush's immigration proposal, support a guest worker program with legal status, and believe that illegal immigration helps the U.S. economy. As our content analysis suggests, because Spanish language news covered immigration from a more positive and informative perspective than English language news, this may be one reason why Latinos who only use Spanish-language news are more aware of the Bush proposal and also more sympathetic to illegal immigrants than those Latinos who rely on English-language news. Moreover, as the estimates from the second model suggest, Latinos who use both English and Spanish news sources are also more likely to hold positive view towards immigration than those Latinos who only rely on English-language news sources.

The simultaneous equation estimates also lend support for the *generational status hypothesis*. In both of the models, second and third generation Latinos are significantly less likely than first generation respondents to be aware of Bush's proposal. The most recent Latinos that arrive to the U.S. should be more aware of Bush's immigration proposal, since it may be of greater salience to them than for second or third generation Latinos. These later generation Latinos, for both of the models that we estimate, also had a lower likelihood of believing in the economic merits of illegal immigration, relative to foreign-born Latinos. The fact that second and third generation Latinos are less likely than those of the first generation to perceive illegal immigration as a benefit to the U.S. economy is consistent with Garcia Bedolla's (2005) theory of "selective dissociation" and the findings by Hood et al. (1997); Branton (2007). Generational status continues to play a role with regards to opinions on the guest worker program, though only for third generation

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[25] The first stage estimates are available in the appendix. We also estimated probit models for the three dependent variables of interest on respondents who only spoke English, respondents who only spoke Spanish, and bilingual respondents. Respondents were classified in these groups based on their ability to read and converse in Spanish. For example, respondents who could not speak or read in Spanish very well were categorized as English speakers. The results indicate that Latinos who only watch Spanish language news are significantly more likely to be aware of Bush's immigration proposal, support a guest worker program that provides immigrants with legal status, and are more likely to believe that illegal immigration helps our economy. These results are consistent with the results found using the simultaneous equation models. The model looking at English-speaking respondents could not be estimated, since all English-speaking respondents did not use Spanish-language news as their preferred source for news. The results for the bilingual respondents indicate that for Latinos who use Spanish-language news, they are significantly more likely to be aware of Bush's immigration proposal and believe that illegal immigration helps the U.S. economy than Latinos who use English-language news. These estimates are available from the authors.

Table 3 Simultaneous equation estimates: explaining Latinos' immigration opinions; model 1: comparing Spanish news source to English only

	Aware of Bush's proposal		Illegal immigration helps economy		Support guest worker with legal status	
	Est. Coeff.	S.E.	Est. Coeff.	S.E.	Est. Coeff.	S.E.
Constant	.70**	.33	0.96*	.36	.80**	.40
News source						
Spanish	.61*	.20	.85*	.22	1.23*	.25
Political attitudes						
Democrat	.21*	.10	.04	.11	−.04	.13
Republican	.19	.13	−.31**	.14	−.28	.16
Little interest in politics	−.38*	.07	−.16**	.08	−.05	.09
Little trust in gov't	−.01	.06	−.03	.07	.05	.08
Acculturation variables						
2nd generation	−.47*	.14	−.34*	.16	−.12	.19
3rd generation	−.44*	.15	−.69*	.18	−.44*	.21
Demographics						
No HS degree	−.30**	.16	−.29**	.17	−.55*	.20
HS degree	−.23	.14	−.24	.15	−.09	.17
Some college	−.21	.14	−.25**	.15	.09	.17
High income	.08	.07	.22	.07	.08	.08
Married	.06	.10	−.23	.11	−.15	.12
Cuban	.09	.27	−.09	.27	−.55*	.27
Puerto Rican	−.24	.21	−.37	.21	−.07	.24
Mexican	.14	.12	.22	.13	.09	.15
Employed full/part−time	.07	.10	−.04	.11	.30	.13
Lives in northeast	−.00	.18	−.25	.19	−.14	.21
Lives in northcentral	.05	.23	.09	.26	.33	.33
Lives in the south	.26*	.11	−.14	.11	−.18	.13
ρ	−.27	.12	−.33	.15	−.52*	.17
Log-likelihood	−931.78		−669.03		−723.80	
N	1292		1243		1280	

* Estimate significant at $p = .01$ level, ** Estimate significant at $p = .05$ level

Entries in columns 2, 4, and 6 are the estimated coefficients from the second stage of the simultaneous equations model. Entries in columns 3, 5, and 7 are the corresponding standard errors of the coefficient estimates

ρ is the correlation coefficient between the first and second stage equations. A likelihood ratio test was performed to test the null hypothesis that $\rho = 0$. The χ^2 test statistic failed to reach statistical significance for these three regressions

Latinos. The coefficients capturing a third generation Latino (−.44) in the first as well as in the second model (−.41) are both statistically significant and signed in the expected direction; thus third generation Latinos are less likely than first generation Latinos to support a guest worker program that would include a path to citizenship.

Table 4 Simultaneous equation estimates: explaining Latinos' immigration opinions; model 2: comparing both Spanish and English news source to English only

	Aware of Bush's proposal		Illegal immigration helps economy		Support guest worker with legal status	
	Est. Coeff.	S.E.	Est. Coeff.	S.E.	Est. Coeff.	S.E.
Constant	.70*	.36	0.95*	.39	.73	.41
News source						
Both Spanish and English	.67*	.20	.89*	.22	1.31*	.20
Political attitudes						
Democrat	.14	.11	.08	.12	−.05	.14
Republican	.34**	.15	−.18	.16	−.20	.17
Little interest in politics	−.45**	.08	−.20**	.08	−.10	.10
Little trust in gov't	−.00	.07	−.06	.08	.10	.09
Acculturation variables						
2nd generation	−.51*	.15	−.38*	.16	−.13	.17
3rd generation	−.47*	.16	−.66*	.18	−.41*	.17
Demographics						
No HS degree	−.10	.17	−.29	.19	−.44**	.21
HS degree	−.21	.15	−.38	.16	−.13	.18
Some college	−.12	.15	−.25	.16	.13	.18
High income	.10	.07	.26*	.08	.11	.09
Cuban	.00	.29	−.34	.29	−.80*	.30
Puerto Rican	−.19	.22	−.44	.22	−.12	.25
Mexican	.18	.13	.26**	.14	.02	.17
Married	.07	.11	−.27**	.11	−.16	.13
Employed full/part−time	.14	.11	−.09	.13	.25**	.14
Lives in northeast	−.02	.20	−.13	.21	−.21	.23
Lives in northcentral	.03	.25	.05	.27	.36	.35
Lives in the south	.28	.12	−.07	.13	−.10	.14
ρ	−.44*	.14	−.48*	.16	−.59*	.10
Log-likelihood	−523.51		−592.81		−433.93	
N	987		944		971	

* Estimate significant at $p = .01$ level, ** Estimate significant at $p = .05$ level

Entries in columns 2, 4, and 6 are the estimated coefficients from the second stage of the simultaneous equations model. Entries in columns 3, 5, and 7 are the corresponding standard errors of the coefficient estimates

ρ is the correlation coefficient between the first and second stage equations. A likelihood ratio test was performed to test the null hypothesis that $\rho = 0$. The χ^2 test statistic was statistically significant at $p = .05$ level for: aware immigration proposal ($\chi^2 = 5.32$) and guest worker program ($\chi^2 = 6.29$), indicating that an endogenous switching model is necessary since news source is endogenous to one's immigration attitudes

Again, this finding is consistent with the previous research that finds later generation Latinos possessing more restrictionist views towards immigration policies, relative to foreign-born individuals.

Latinos' political orientations and preferences also impact their immigration attitudes. One's partisanship affiliation explained Latino public opinion in both sets of estimates; in the first model, Democrats are more likely to be aware of the proposal than are Independents. And consistent with party platforms, Latinos in the first model who identified themselves as Republican are less likely to perceive illegal immigration as a benefit to the U.S. economy (−.31), when compared to Independents. The estimates from the second model indicate that Republican Latinos are more likely to be aware of the proposal than are Independent Latinos. One's partisanship affiliation, however, does not appear to explain Latinos' attitudes towards illegal immigration or immigration reform in this second model.

A Latino's interest in politics also affects their immigration views. In the first model, Latinos who report having little interest in politics are, not surprisingly, less aware of Bush's proposal than those with greater levels of political interest. Politically uninterested Latinos also have a lower likelihood of believing that illegal immigration helps the U.S. economy, as denoted by the coefficient capturing this variable (−.16). In the second model that focuses on Latinos who use both news source as opposed to just English news, one's interest in politics also impacts their awareness of the Bush immigration proposal and their opinions towards illegal immigration. Those who are less politically interested have a lower likelihood of being aware of Bush's proposal; the less politically interested are also less likely to feel that illegal immigration helps the American economy by providing low-cost labor. Politically uninterested Latinos perhaps feel this way about illegal immigration since they may not be particularly attentive to the facts surrounding the impact of the unauthorized work force on the nation's economy. The other political variable that we control for, levels of political trust, does not appear to play any role in Latino's views on immigration; this is the case for both of the models that we estimate.

The final group of controls that we include pertain to a respondent's demographic characteristics. In terms of educational status, the least educated Latinos (those with no HS degree) in the first model are less likely to be aware of Bush's proposal than those with a college degree or beyond. From this same model, Latinos with no high school degree are also less likely to perceive illegal immigration as an economic benefit relative to the most educated Latinos (−.29). It is understandable why this would be so, given that they may perceive undocumented immigrants as a threat or competition to them in the labor market. Finally, the least educated Latinos in the first model have a lower likelihood of supporting a guest work program that includes a legal path to citizenship when compared to Latinos with a college education or beyond. For Latinos with some college education, the coefficient capturing this variable in the second model is negative and statistically significant (−.25), indicating that they are less likely than Latinos with a college degree to believe that illegal immigration is a benefit to the American economy. Overall, we see how education plays a fairly important role in shaping Latinos' views on this particular issue, but primarily for those at the tail ends of the educational ladder.

An individual's income level plays a smaller role in influencing their immigration attitudes, since it fails to influence a Latino's likelihood of being aware of the Bush proposal and their position on the guest worker program. The effect of income is only evident on a Latino's views towards illegal immigrants in our second model; Latinos with high levels of income are more likely to view illegal immigrants as a benefit to the American economy than those with lower income levels (.26). One's employment status also helps to explain a Latino's position on the guest worker program, with those who are employed being more likely to favor a guest worker program with legal status than those who are unemployed. Regional variations, based on the indicators available from this survey, have no impact on immigration opinions. The last demographic variable that we account for, an individual's marital status, only plays a role in Latinos' views towards illegal immigration (model two); those who are married are less likely to view illegal immigration as helping the economy than those who are not married.

Latino subgroup differences emerge with respect to their opinions towards the guest worker program. In both of the models, the coefficients denoting that the respondent is of Cuban descent (−.55 and −.80, respectively) are statistically significant and negatively signed. This means that Cubans are less likely than Central and South Americans to favor a guest worker program that provides legal status. Given that Cubans tend to be more ideologically conservative than other Latinos (Garcia 1996), this may explain why they have a more restrictionist view on immigration reforms. With regards to opinions on the role of illegal immigration, respondents of Mexican descent had a higher probability of viewing illegal immigration in a positive manner than respondents of Central/South American heritage. Given that immigrants from Mexico are estimated to comprise the largest number of undocumented immigrants in the U.S. (Passel 2005), it is understandable why respondents of Mexican descent would view illegal immigration from this perspective.

To determine the amount of explanatory power that a Latino's news source and generational status has on their immigration attitudes, we calculate first difference estimates. To do so, we constructed a hypothetical Latino respondent by setting all variables other than media source and generational status to their mean or mode. The hypothetical respondent is Mexican, lives in the western part of the U.S., earns less than $30,000, employed either full or part-time, and possesses a high school degree. Moreover, he/she is somewhat interested in politics, trusts the government some of the time, and identifies with the Democratic party. We then focus on two counterfactual scenarios: (1) when the respondent goes from using Spanish/both to English news; (2) when the respondent's generational status shifts from first to second generation.[26] For the first scenario, we estimate the hypothetical respondent's probability of being aware of Bush's program when he uses Spanish/both news and then calculate the same probability when he uses English news. In the second scenario, we estimate our hypothetical respondent's

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[26] First difference estimates are also estimated when a respondent shifts from being a first to a third generation respondent. They are available from the authors.

Table 5 Predicted probability estimates

Probability that a Latino	Model 1		Model 2	
	Goes from using/being		Goes from using/being	
	Spanish to English news	1st to 2nd generation	Both to English news	1st to 2nd generation
Is aware of Bush's immigration proposal	−.42	−.06	−.09	−.17
Supports guest worker program w/legal status	−.13	−.01	−.18	−.01
Believes that illegal immig helps the economy	−.22	−.07	−.28	−.10

Entries are first difference estimates computed from predicted probablities. The first difference estimates indicate the likelihood of the typical Latino supporting one of the scenario's in the row entries, based on the given column scenarios

Predicted probability estimates were calculated based on the coefficient estimates from Tables 3–4

probability of being aware of Bush's program when he is a first generation Latino and then calculate the same probability when he is a second generation Latino. The difference between these two probabilities (for each scenario) produce the first difference estimates, which are presented in Table 5.[27]

In all but one of the twelve scenarios that we look at, the difference in one's news source for our hypothetical Latino explains their views on immigration more so than a difference in their generational status. For instance, when examining the impact of one's news source for a monolingual Latino, the difference between using Spanish and English news sources is −.42. This means that a Latino who goes from using Spanish to English news becomes .42 less likely to be aware of the Bush proposal. Given that this individual most likely uses Spanish news media out of necessity rather than by choice, this perhaps explains why a change in their news source has such a large impact on his/her probability of being aware of the Bush proposal. Now when this same respondent goes from being a first to a second generation Latino, the difference in probability of awareness is .06. A similar pattern is evident in our hypothetical Latino's opinions towards illegal immigration and the guest worker program; when the respondent uses English as opposed to Spanish-language news, he is .13 less likely to support a guest work program with legal status and .22 less likely to believe that illegal immigration helps the economy. In contrast, the differences between being a first or second generation Latino on their likelihood of supporting a guest worker program and viewing illegal immigration as an economic benefit is smaller (.01 and −.07, respectively).

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[27] While we would have used a package such as CLARIFY to compute the standard errors of the predicted probabilities, the endogenous switching model is not supported by CLARIFY. However, because the coefficients on the variables of interest (generational status and news source) from which we estimate the predicted probabilities are statistically significant at the $p < .01$ *level*, this provides us with enough assurance to expect these predicted probability estimates to also be significant at the standard levels.

When the hypothetical Latino is bilingual (model 2), where they turn to for news continues to explain their knowledge of and opinions towards immigration, more so than their generational status. For instance, the difference between a hypothetical respondent who uses both English and Spanish versus English-language news in their support of a guest worker program is −.18. But a difference in generational status (1st versus 2nd) for a hypothetical Latino only leads to a .01 decrease in his probability of supporting a guest worker program with legal status. These counterfactual scenarios help shed light on the role that news source and generational status play in shaping Latinos' views on immigration. While these two variable are both measures of acculturation, one's media source appears to have a greater impact on their immigration attitudes than does their generational status.[28]

Conclusion

Our findings make several contributions to the mass media and public opinion literature. First, using Spanish news organizations as an example, we find that specialized news sources do differ from mainstream news sources in their coverage of particular issues. Although the motivations in the production of news are the same for Spanish and English-language news organizations, their distinct audiences lead them to discuss immigration in different ways. Our content analysis of television news segments reveals that Spanish-language news organizations cover immigration in a more positive and informative manner when compared to English-language news coverage of immigration. This should not come as too much of a surprise, given that audience for each of these news outlets differ.

We then go on demonstrate that a Latino's source for plays some role in explaining their immigration attitudes. In particular, Latinos who use Spanish news sources are more likely to be aware of recent immigration initiatives and hold more favorable opinions towards illegal immigrants than those Latinos who use English news sources. Latinos relying on both Spanish and English news also have a greater likelihood of possessing pro-immigrant sentiments than Latinos who only use English news sources. Considering that Latinos are still politically "up for grabs" and that immigration is currently at the forefront of national debate, knowing what factors help to explain their immigration attitudes and beliefs is invaluable for aspiring candidates, elected officials, and political parties. Immigration was an important campaign issue in the 2006 elections and is expected to be just as salient of an issue for the upcoming 2008 Presidential and congressional races.[29] If the Spanish and English news outlets continue to frame immigration in this manner, and if it remains to be at the center of political discussion, this bias may go on to affect the choices that voters make on election day.

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[28] The correlation between news source and generational status is −.53 for respondents who use Spanish-language news and .59 for those who use English-language news.

[29] For one example, refer to "Immigration Reform Take 2: Learning the lessons of last year's debacle", Editorial, *Washington Post*, B06, March 4, 2007.

Clearly, further research is needed since our approach examines the impact of news on public opinion from just one angle. Other methods, most obviously, lab experiments, would provide a better understanding of the influence that one's news source can have on their views not only on immigration, but on other issues as well. Though as the literature on media bias that uses non-experimental methods finds (bias in terms of political ideology), one's source for news does influence a wide array of political behaviors, from vote choice to knowledge of issues to turnout rates (Gentzkow and Shapiro 2004; Kull et al. 2003; Della Vigna and Kaplan 2006). Our findings contribute to this line of research by demonstrating that the content, at least on the issue of immigration, varies for English and Spanish news outlets, with a more negative bias present in the English news broadcasts and a more positive bias in the Spanish news segments. Given these different forms of bias, English and Spanish news users exhibit distinct attitudes towards immigration.

Our content analysis of Spanish and English television news also suggests that monolingual Latinos (those who only speak Spanish or those who only speak English) may be receiving a different picture of the immigration issue than their bilingual counterparts. For Spanish-speaking Latinos, they are primarily being exposed to a positive view of immigration, one that sees the value and contributions of immigrants in the U.S. On the other hand, Latinos who depend on English news sources may be primed to think of immigration in a less positive light, perhaps focusing on the criminal aspects associated with illegal immigration. While a Latino's source for news is a choice for a sizable portion of this population, to many, it is not. As such, Latinos' attitudes towards immigration, as well as on other issues, may vary as a function of where they receive their news. And while this analysis is limited to the issue of immigration, Spanish and English news coverage on other issues that are directly relevant to Latinos, such as affirmative action, as well as other policies that Latinos care about, e.g. jobs and healthcare, may also vary. If this is the case, then the policy divisions within the Latino electorate may be greater than previously believed, especially if the rates of immigration continue to increase.

Appendix

Coding the News Segments

The authors performed the coding of the news segments and each coded 50% of the sample. Intercoder reliability was calculated using Cohen's κ test statistic; it has a scale that ranges from 0 to 1, with 1 indicating perfect reliability and 0 indicating almost no agreement (Stemler 2001). This measure accounts for the likelihood that agreements between coders can occur intentionally as well as by chance. One of the

authors coded 10% of the sample that he/she did not code in order to calculate the κ score; this is considered to be standard practice to determine reliability (Stemler 2001). The equation used to calculate Cohen's κ test statistic is presented below:

$$\kappa = \frac{P_a - P_c}{1 - P_c} \qquad (1)$$

where:

P_a is the proportion of stories where there is agreement between the coders
P_c is the proportion of stories where there is agreement by chance

For our data, $\kappa = .65$; Landis and Koch (1977, p.165) develop a scale to interpret this test statistic, with 0.0–0.20 indicating slight agreement, 0.21–0.40 indicating fair agreement, 0.41–0.60 signifying moderate agreement, 0.61–0.80 substantial agreement and 0.81–1.00 almost perfect agreement. Thus, our κ test statistic of 0.65 indicates that the strength of agreement is substantial. This gives us confidence in the reliability of the data and the coding scheme employed for this research.

Questions Used

(1) Does the news segment adopt an anti-, neutral, or pro-immigration tone towards immigration? An anti-immigration tone is defined as a news segment in which either the journalist or an individual interviewed or quoted in the segment discusses immigration in a detrimental way (e.g. "the proposed reform would take away jobs from U.S. citizens and rewards those who break the law.") A neutral position is defined as a news segment which only discusses the provisions and details of the proposed immigration reform (for either Bush, the Democrats or both), but does not incorporate any opinions. This type of news segment is factual, and provides no opinions either from the journalist or from any individuals being interviewed. A pro-immigration tone is defined as a news segment in which either the journalist or an individual interviewed or quoted in the segment discusses the immigration proposal as a benefit to individuals and/or to U.S. society, e.g. this proposal is a humane approach that would help immigrants from hiding and living in fear of the U.S. government. *(This question captures the overall tone of the news segment).*

(2) The news segment mentions: (1) only Bush's proposal; (2) only the Democrat proposal; (3) neither proposals; 4) both proposals. *(This question captures the extent to which the news segment informed viewers of the different versions of the proposal.)*

(3) Does the news segment mention that the immigration reforms are politically motivated, meaning that the only reason Bush proposed the reform was to win the vote of the Latino electorate? For instance, "Bush and the Republicans are trying to win over Hispanic voters" or "Democrats criticize the proposed immigration reforms as political moves." *(This question captures instances where the motivation for immigration reform was linked to political efforts by politicians to gain the political support of Latinos.)*

Table A1 First stage estimates: simultaneous equations models

	Aware of Bush proposal		Illegal immig helps economy		Guest worker w/legal status	
	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)
Instruments						
Only English spoken at home	−.24* (.08)	−.24* ((.09))	−.28* (.08)	−.23* (.09)	−.23* (.08)	−.21* (.09)
Only English spoken at work	−.16* (.06)	−.26* (.07)	−.24* (.05)	−.27* (.08)	−.16* (.06)	−.30* (.07)
Instructions in English	−.56* (.18)	−.95* (.13)	−1.35* (.19)	−.*93 (.20)	−.52* (.18)	−.88* (.19)
Interview in Spanish	.85* (.18)	.44* (.20)	−1.35* (.13)	.41* (.21)	.88* (.18)	.49** (.20)
Political attitudes						
Democrat	−.08 (.14)	−.14 (.17)	.06 (.13)	−.21* (.09)	−.05 (.14)	−.16 (.17)
Republican	.23 (.20)	−.46 (.27)	−.21 (.13)	−.47 (.28)	−.20 (.19)	−.50 (.26)
Little interest in politics	.08 (.10)	.24* (.11)	−.17 (.13)	.23** (.12)	.05 (.10)	.22 (.12)
Little trust in gov't	−.01 (.09)	−.29* (.11)	−.08 (.13)	−.27 (.12)	.01 (.09)	−.27 (.11)
Acculturation variables						
2nd generation	−.59* (.20)	−.18 (.13)	−.45* (.13)	−.22 (.21)	−.56 (.20)	−.25 (.13)
3rd generation	−.70* (.30)	−.96 (.37)	−.76* (.13)	−1.09* (.38)	−.67** (.29)	−.96 (.36)
Employed full/part-time	−.12 (.15)	.02 (.18)	−.07 (.13)	−.00 (.00)	−.12 (.15)	−.00 (.18)
Lives in northeast	−.06 (.25)	.38 (.29)	−.10 (.13)	.46 (.30)	−.06 (.25)	.31 (.28)
Lives in northcentral	−.20 (.35)	−.54 (.40)	−.01 (.13)	−.59 (.41)	−.22 (.34)	−.65 (.42)
Lives in the south	−.15 (.15)	.31 (.19)	−.11 (.13)	−.31 (.20)	−.15 (.15)	−.32 (.19)
Demographics						
No HS degree	.22 (.21)	.05 (.26)	−.27* (.13)	.08 (.26)	.24** (.21)	.04 (.25)
HS degree	−.12 (.19)	.18 (.22)	−.37 (.13)	.15 (.23)	−.17 (.19)	.08 (.22)
Some college	−.07 (.22)	−.26 (.25)	−.28 (.13)	−.37 (.26)	−.12 (.22)	−.37 (.25)
High income	−.14 (.10)	−.41 (.12)	.22* (.13)	−.44* (.12)	−.15 (.10)	−.39* (.12)

Table A1 continued

	Aware of Bush proposal		Illegal immig helps economy		Guest worker w/legal status	
	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)	Model 1 Spanish news Est Coeff (S.E.)	Model 2 both news Est Coeff (S.E.)
Cuban (.34)	.19 (.40)	.95 (.13)	−.27 (.41)	1.07*	.26 (.33)	1.09* (.39)
Puerto Rican	.19 (.32)	−.17 (.36)	−.47 (.13)	−.14 (.35)	.11 (.33)	−.08 (.36)
Mexican	.25 (.17)	.30 (.20)	.30** (.13)	.42** (.22)	.26 (.16)	.40 (.21)
Married	.14 (.14)	.04 (.17)	−.25** (.13)	.06 (.18)	.13 (.14)	.01 (.17)
Constant	.73* (.48)	2.41* (.60)	2.21* (.20)	2.47 (.63)	.76 (.48)	2.50 (.61)

* Estimate significant at p = .01 level; entries not in ( ) are coefficient estimates; entries in ( ) are standard errors

The dependent variable in model 1, only Spanish news, is coded as 1 if the respondent only uses Spanish news, 0 if only English news is used. The dependent variable in model 2, both news, is coded as 1 if the respondent uses both Spanish and English news, 0 if only English news is used

Table A2 Descriptive statistics

Variable	Mean	S.D.	Range
Dependent variables			
Aware of Bush's proposal	0.66	0.47	0,1
Illegal immigration helps economy	0.77	0.42	0,1
Support guest worker	0.88	0.33	0,1
Use Spanish news	0.43	0.49	0,1
Use Both news	0.32	0.47	0,1
Independent variables			
No high school	0.32	0.47	0,1
High school	0.29	0.46	0,1
Some college	0.19	0.39	0,1
Second generation	0.21	0.41	0,1
Third generation	0.18	0.39	0,1
Democrat	0.44	0.50	0,1
Republican	0.18	0.39	0,1
Little interest in politics	1.75	0.70	1,3
Political trust	2.47	0.74	1,3
Income	1.78	0.85	1,3
Married	0.54	0.50	0,1
Mexican	0.68	0.46	0,1
Cuban	0.04	0.20	0,1
Puerto Rican	0.06	0.24	0,1
Northeast	0.10	0.30	0,1
Northcentral	0.04	0.21	0,1
South	0.29	0.45	0,1
Employed	2.66	1.6	1,8
Language spoken at home	2.64	1.44	1,5
Language spoken at work	3.44	1.60	1,6
Instructions	0.46	0.50	0,1
Language of interview	0.51	0.50	0,1

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