The Dynamics of Immigration Attitudes in the U.S.*

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Abstract

What are the forces that make Americans more or less supportive of immigration? To date, the literature on the subject has been cross-sectional in focus. In contrast, the theory and analyses performed herein have an over-time focus. We expect that when the public is more optimistic about the economic future, it will be more supportive of liberalized immigration; when pessimism permeates economic expectations, by contrast, the public will increasingly oppose immigration. Similarly, we expect that the quantity and tenor of media coverage about immigration will drive immigration attitudes, with periods of higher positive coverage creating sympathy for immigration. The theory is tested using quarterly data from the United States covering the period from 1990 – 2012. We find support both the media hypothesis and the economic expectations hypothesis.
Introduction

Some political issues in democratic societies are transitory, and only on the public’s mind for a relatively short while. Others emerge with the passage of time. Still others have been a seemingly permanent part of the political landscape. To be sure, the number of such near-permanent issues must be small; perhaps they lurk in the background more often than they command center stage, but they are nevertheless never too far from the public agenda.

The story of the United States and the issue of immigration are inextricably and permanently linked. From the oft-uttered phrase that “we are a nation of immigrants” to the moving museum at Ellis Island and the Statue of Liberty’s invitation to the world to “Give me your tired, your poor, your huddled masses yearning to breathe free,” immigration is a consistent theme in American myth-making. In its near-permanence, it is one of the issues that has distinguished America from its fellow democracies.

And yet, perhaps as with most myth-making enterprizes, the issue is fraught with tension. On the one hand, few (if any) Americans would overtly turn their backs on the nation’s heritage of immigration. Indeed, the way that Americans refer to their ethnicity as “Irish,” “Dominican,” or “Korean”—even, or perhaps especially, when they have never lived in those countries of origin—reinforces in a positive way the idea that immigration is a source of pride in the U.S. But on the other hand, the U.S., precisely because it is a land of economic and political opportunity, attracts a lot of people yearning, as it were, to breathe free. This sense of America as a sought-
after destination for so many people from around the world sometimes frightens a segment of Americans. Are there enough jobs in the American economy, people wonder, to absorb all that wish to come here? Can the schools handle a continuing influx of new arrivals, many of whom do not speak English? Can the social safety net—should the social safety net—accommodate the needs of people who show up in America with big dreams but empty pockets? The soaring rhetoric of American ideals welcomes the immigrants without question; the base reality of American social Darwinism, by contrast, makes many Americans unwilling to accept new arrivals to their country and their communities.

The purpose of this project is to explore the over-time dynamics of American attitudes toward immigration. In the sections that follow, we will outline some of the literature on public opinion about immigration, which is largely cross-sectional in approach. We then describe some theoretical expectations about the causes of over-time movement in immigration attitudes, focusing on both the dynamics of the economy as well as cultural portrayals in the mass media. Next, we outline a research design for assessing that theory’s validity, describe the data-collection challenges, and the present results and evaluate the theory’s merit.

A cross-sectional literature

The literature on American attitudes toward immigration has been dominated by cross-sectional studies, which seek to explain why some Americans support immigration (and liberal immigration policies) while others oppose it. (See, for example,
(Citrin et al. 1997), (Knoll, Redlawsk & Sanborn N.d.), (Hainmueller & Hiscox 2010), (Hopkins 2010), and (Brader, Valentino & Suhay 2008). These studies provide valuable insight into the forces that determine variation between individual opinions. However, despite the fact that, within a single cross section, there can be some geographic variation in both the economic and media environments that individuals experience—Michigan might have higher unemployment than South Dakota, for example, and Chicago might have different local news coverage about immigration than Phoenix—there are limits to the amount and type of variability that can be experienced in a single cross section. In particular, theories about the relationship between economic upturns and downturns cannot be properly and fully explored in a cross-sectional context. Neither can theories of media influence, as the cross-sectional variation in media environments may be correlated with other forces that are also related to individual attitudes.

There is no comparable literature examining the over-time dynamics of attitudes about immigration. In fact, in the two most prominent works on trends in American public opinion—Page and Shapiro’s 1992 book The Rational Public and Stimson’s 1991 book Public Opinion in America—do not give the topic any attention. In Page and Shapiro’s case, Americans’ attitudes about immigration gets a passing mention, but no presentation or analysis of data, in their chapter on economic welfare. In Stimson’s case, there is even less discussion; the word “immigration” does not even appear in the index. These two works, it is safe to say, marshal more survey

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1 For comparative work in this spirit, see (Sniderman, Hagendoorn & Prior 2004).
2 A slight exception in the American case is Hopkins (2010), and in the comparative case, an exception is Boomgarden and Vliegenhart (2009).
data in the service of science than has been seen before or since. The omission of any analysis of an issue as foundational to understanding America as immigration is striking. Given the vast quantities and variety of data gathered by these researchers, surely this is not a function of carelessness or oversight.

Before proposing and implementing a solution to fill this void, we will offer theoretical expectations regarding the dynamics of opinion on immigration.

The dynamics of immigration attitudes

Why is the American public sometimes more open and receptive to immigration, while at other times, it is more hostile to the idea? Two dynamic forces, we argue, will dominate the explanation. Consistent with the cross-sectional literature, the first is economics. The effects of economic cycles on immigration attitudes are many. Economic prosperity produces an environment that makes people more confident in and less worried about their future, and therefore reduces both their actual and perceived threats to their economic security.

An expanding economy also brings with it higher demand for labor. Businesses put out “Help Wanted” signs, and the Classified section of the newspapers are thicker, with more employers looking to hire. Moreover, the portion of the mass public that is involved in hiring—in particular, those in Human Resources departments or small businesspeople, or even those who converse with such people regularly—

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3It is worth noting that two reviews of the available data on immigration attitudes have appeared in “The Polls” section of Public Opinion Quarterly—the first in 1997, and most recently in 2010. See Lapinski et al. (1997) and Segovia and Defever (2010).
become acutely aware of hiring needs, and how, if the supply of labor does not rise to keep up with the demand for it, inflation might result from the competition for the limited supply of labor that is available. In the short run, the only practical way to increase the labor supply is to import workers from outside the current labor market.

The American workforce has become more highly educated over the past several decades. But that does not reduce or eliminate the need for less-skilled workers (in service industries, for example). This secular trend toward more human capital in the United States may bring with it the recognition that the country needs to import labor from elsewhere to keep the supply of relatively cheap service-sector labor robust.

Retracting economies, however, produce an environment that can induce concern and even panic in people regarding their immediate and long term economic futures. Some members of the workforce may see themselves in competition with new workers and resent their presence as a result. Others may see immigrants as a further strain on the social safety net which is already pulled tight during times of economic retraction.

What feature of economic cycles should drive immigration attitudes? Objective economic reality—inflation, unemployment, growth, and the like—often lag behind subjective economics. It is the subjective economic experiences, in our view, that should produce shifts in immigration attitudes. The effects of a surge in immigration are likely to be felt as time unfolds, as immigrants decide to relocate, settle in, and
look for work. The public’s appetite for an influx of immigrants should be related first and foremost to their expectations about the economic future. When they expect a rosy economy in the medium to long term, then the public’s desire for more immigrants, and more liberal immigration policy, should grow. When the public expects a dim economic future, then it should prefer a more strict immigration policy.

But expectations about the future of the economy should not be the sole determinants of the public’s preferences regarding immigration. Perhaps more than most other issues on the American political landscape, immigration is complex and multifaceted. Most members of the American public will feel this complexity and, in their minds, have a vast array of associations regarding the issue of immigration. Some of those associations will be positive, others negative. In short, in the classic Zallerian (Zaller 1992) sense, Americans should feel competing considerations on the issue of immigration.

Some portions of the issue of immigration are likely to evoke sympathy, perhaps even inspiration, and hence lead to a desire to allow more immigration. For example, inspiring stories that involve hard work and seeking economic opportunity, that involve coming to a land of greater political freedom, and that describe a desire on the part of immigrants to become American should all produce feel more open to immigration. But other typical associations in the minds of typical Americans are likely to lead to hostility and resentment toward immigrants and immigration. Mental associations that paint immigrants as lawbreakers—either in the process of getting to America, or while here—should produce opposition to immigration. In
addition, associations involving a desire to be culturally distinct from mainstream American culture, especially when it comes to a lack of willingness to learn English, also should spawn anti-immigrant sentiment. Finally, images of immigrants as lazy, or as people who seek to come here simply to benefit from the benefits of the welfare state, instead of to work, should also be associated with hostility toward immigration.

Most Americans possess many of these conflicting sentiments toward immigrants and immigration somewhere in their reservoir of political thoughts and feelings. And most Americans do not think daily about the issue of immigration, or feel a need to “resolve” any cognitive dissonance that these differing thoughts might inspire. And yet, on the rare day when a member of the public is interviewed by a survey organization, these considerations become highly relevant when the respondent is asked to give a liberal or conservative answer to a question about immigration. How will conflicting values pertaining to immigration be temporarily resolved in the context of a survey question? Again following (Zaller 1992), it is likely to be resolved by the cues that survey respondents are more likely to recall—which is to say, by the cues that they received most recently. Americans overwhelmingly get cues like this from the national media. When the media become more pro-immigrant in their reporting—that is, when stories emphasize hard work, freedom, opportunity, or the like—then aggregate opinion should drift in a liberal direction.
Design and data

In contrast to the literature, the theory outlined above is an explicitly dynamic one, which implies that the design required to assess the theory must involve time series analysis. What are required, then, are over-time measures of the phenomenon that we seek to explain—aggregate support for and opposition to immigration—as well as of the two proposed causes of those attitudes—media coverage and consumer sentiment.

Taking the last problem first, in order to measure consumer sentiment, we will focus on the University of Michigan’s Survey of Attitudes and Behavior. More specifically, consistent with our theory, we will use the component of their Index of Consumer Sentiment that focuses on long-term business expectations. Consistent with our appropriation of Durr’s (1993) theoretical perspective, this is also the measure he uses to predict changes in Policy Mood. The survey question reads:

Looking ahead, which would you say is more likely— that in the country as a whole we’ll have continuous good times during the next 5 years or so, or that we will have periods of widespread unemployment or depression, or what?

The specific measure we will use involves adding 100 to the percent of respondents who answer “continuous good times” and subtracting the percent who answer “periods of widespread unemployment or depression.”

We turn next to the issues of measuring opinion on immigration, and media
coverage pertaining to immigration.

**Measuring mass opinion on immigration**

What we seek is an over-time measure of the degree to which the American public, in the aggregate, is open to immigration or opposed to it. At the outset, this seems simple enough. Gather the various imperfect and incomplete time series that do exist on the topic, and cobble them together using the technology (Stimson 1999) that we have had at our discipline’s disposal for two decades. This approach has been used to measure many concepts that scholars of macro public opinion have found useful, beyond Stimson’s original application of Mood. Some variant of this approach has been used to study racial policy preferences (Kellstedt 2003), trust in government (Chanley, Rudolph & Rahn 2000) (Keele 2007) (Hetherington & Rudolph 2008), evaluations of the president’s handling of the economy (DeBoef & Kellstedt 2004), and others.

The survey record on some of America’s most enduring and normatively important issues has proven to be notoriously thin, making over-time analysis more elusive. The example of race, which has often been seen as the American dilemma, is illustrative (see Kellstedt 2003, ch. 3). And yet, by contrast, the case of immigration is far more vexing. The number of survey questions asked repeatedly about immigration is painfully small. Recall that, in order to have any time-series leverage, the same survey question must be asked at least twice, preferably by the same survey
In particular, neither of the two workhorses of time-series public opinion research—the General Social Survey and the National Election Study—has ever produced and repeatedly implemented a standard survey item on immigration. This has presumably had cascading effects in the rest of the survey houses, as many of the commercial survey houses borrow question wordings directly from academic survey organizations.

The task at hand, then, is akin to making a beautiful and robust quilt from the smallest scraps of fabric. We have gathered 164 time series from the 1970s through the second quarter of 2012. The vast majority of these series contain two time or three time points. Only eleven time series have six or more data points. The content of these series varies substantially. Some ask about the public’s preferred level of immigration for people from specific continents; others ask about the effects of immigration on American culture, or on American jobs; and others still ask about how big of a problem illegal immigration is.

The 164 time series, together, comprise 515 separate measures of public opinion about immigration. These survey questions are not distributed evenly through time, however. Before 1977, there were exactly 8 surveys, total, conducted about public opinion about immigration involving a repeated question. Even after 1977, the frequency of survey items is shockingly sparse. Months go by, quarters go by, and even years go by without a single instance of a pollster taking a reading of the public’s

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4In the analyses to follow, we will relax considerably both assumptions—that the survey question be identical, and also that it be asked by the same survey house.

5The NES partisanship and abortion measures and the GSS spending measures are only the most obvious examples.
sentiment about immigration. The longest such gap, post-1977, occurs between the third quarter of 1986 and the third quarter of 1989, during which no surveys took place. This creates serious problems for any analyst interested in measuring shifts in public preferences with respect to immigration.

Because of the large gap in the late 1980s, we have combined 163 time series beginning in the second quarter of 1990 and running consecutively through the second quarter of 2012 that altogether comprise 251 survey items into a single index using Stimson’s (1999) algorithm, resulting in a quarterly time series of 89 time points. Because we wish to measure aggregate opinion about immigration generally and not immigrant groups specifically, no questions regarding particular immigrant groups have been included in the measure. Additionally, only questions that have been asked three or more separate time points and are not tightly clustered around a few time points alone are used.

The resulting series is presented in Figure 1, where higher numbers indicate a public more liberal on and accepting of immigration. The figure describes a public that has become more liberal on immigration since the middle and later portion of the 1990s. Though there have been subsequent drops in mass public liberalism on immigration, the levels have never dropped to those seen in the early 1990s. The public then drifted toward conservatism somewhat after the economy peaked in early 2000, and again, more sharply, roughly coinciding with the 9-11 attacks. There is noticeable variation throughout 2005 and 2006, corresponding to President George W. Bush’s push for immigration reform, and there was a sharp drop in 2008 and 2009, roughly around the time of President Barack Obama and Senate Democrat’s push
for the passage of the DREAM Act and the most recent economic crisis. The series concludes with a drift toward liberalism as the economic outlook slowly improves.

Figure 1: American mass public liberalism on immigration, 1990:2 – 2012:2

Because presenting the correlations between each of the 163 indicators and the resulting index would be (to say the least) unwieldy, we present in Table 1 only the question wordings and correlations with the index for the seven series with seven or more data points in them. One indicator, asking specifically about illegal immigration, loads negatively. The rest load in the way that has come to be a pattern amongst analysts using this technique. Overall, the single dimension accounted for 66.25% of the variation in the indicators, which compares favorably to many other similarly created indices in the literature.
We also searched for a second dimension in immigration attitudes. Our initial curiosity centered on whether or not different dimensions might emerge over questions involving legal immigration versus those specifically mentioning illegal immigration. This turns out not to be the case. A second dimension was mostly uninterpretable and did not explain substantially increased amounts of variation.

Table 1: The components of a measure of immigration sentiment in the U.S., 1990 – 2012

<table>
<thead>
<tr>
<th>Question wording</th>
<th>N</th>
<th>Corr. w index</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your view, should immigration be kept at its present level, increased, or decreased?</td>
<td>24</td>
<td>0.972</td>
</tr>
<tr>
<td>Should legal immigration into the United States be kept at its present level, increased, or decreased?</td>
<td>15</td>
<td>0.867</td>
</tr>
<tr>
<td>On the whole, do you think immigration is a good thing or a bad thing for this country today?</td>
<td>13</td>
<td>0.908</td>
</tr>
<tr>
<td>Do you think the immigrants coming to this country today mostly take jobs away from American citizens, or do they mostly take jobs Americans don’t want?</td>
<td>10</td>
<td>0.709</td>
</tr>
<tr>
<td>... We should restrict and control people coming to live in our country more than we do now.</td>
<td>9</td>
<td>0.745</td>
</tr>
<tr>
<td>... [do] you personally worry about this problem a great deal, a fair amount, only a little, or not at all. How much do you personally worry about illegal immigration?</td>
<td>9</td>
<td>-0.591</td>
</tr>
<tr>
<td>... Immigrants today strengthen our country because of their hard work and talents or immigrants today are a burden on our country because they take our jobs, housing and health care.</td>
<td>7</td>
<td>0.659</td>
</tr>
</tbody>
</table>
Measuring media dynamics on immigration

In an effort to measure media portrayals of immigrants, we have gathered, via Nexis, every story and television segment available for six sources in which “immigra-” was either the start of a subject heading or was the start of a keyword at least twice in the story. The six sources are *ABC World News Tonight*, *CBS Evening News*, *Hannity & Colmes* (which was replaced by *Hannity* in January 2009), *The O’Reilly Factor*, *Hardball*, and the *New York Times*. *ABC World News Tonight* is our longest running series, from November 1979 to October 2011. We have every story for *The New York Times* from June 1980 to January 2011. The *CBS Evening News* series is from February 1990 to October 2011. We have every story from *Hannity & Colmes* and *Hannity* from January 1998 to October 2011, and we have every story from *The O’Reilly Factor* from December 1998 to October 2011. Finally, the *Hardball* series runs from April 1998 to October 2011. Total, we have collected 14,481 stories across four different television networks, including two nightly news programs and three “opinion news” programs, and one national newspaper.

We then content coded the stories using an originally conceptualized dictionary and computer-aided text analysis. To build our dictionary, we conceptualized positive and negative mentions of immigrants and immigration policy consistent with the theory previously specified. Positive mentions about immigrants include dictionary concepts about immigrants who are hard-working, seeking the “American dream” or

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6 It is reasonable to extend the *Hannity & Colmes* series into Hannity’s solo show, as it aired three days after the last broadcast of *Hannity & Colmes*, shares the same time slot, and is viewed by Fox News Network as a reformatting of *Hannity & Colmes*. 
political freedom, or stories about immigrants positively assimilating into American culture. Negative mentions about immigrants include concepts relating to illegal entry into the United States, portrayals of immigrants as lawless, taking American jobs, or burdening taxpayers through the welfare state. The dictionary contains 46 different concepts which are then combined through 60 different rules to produce the positive and negative mentions of immigrants and immigration. As previously discussed, coverage and discussion of immigration in the United States is complex. Stories about immigration often contain both positive and negative references to immigrants and immigration. We, therefore, measure positive and negative mentions, not positive and negative stories.

To give a sense of the types and complexity of stories on immigration and the way our dictionary works on these stories, the next paragraphs contain small portions of stories from *CBS Evening News, The O’Reilly Factor*, and the *New York Times* and the resulting output from our computer-aided text analysis.

ANDREWS: This is Rose’s second life here. She was raised in this neighborhood, the child of immigrant {farm workers} when La Habra was a migrant camp. But she got an education, then a {job} designing medical products, and then moved her family back here to help.

This report is from the “The Best of Us” segment of CBS Evening News on December 5, 1996. Our content analysis produced two positive portrayals of immigrants, as indicated by the words in braces. Both “farm workers” and ”job” are coded as positive based on our conceptualization of immigrants as hardworking and because of their close proximity to the words “immigrant” and “migrant.”
O’REILLY: Anyway, it is clear the American print media, including the conservative “Wall Street Journal” has no stomach for tough measures that would {secure the border} and discourage millions of other {foreign nationals from coming here illegally}. Thus, the {illegal alien} problem will not be solved. I hate to say it, but if you don’t {secure the border}, the alien merry-go-round will continue no matter how many {work permits} you issue.

The politicians and the press know that but they don’t care. They feel good about a human approach to {illegal immigration}. So America is facing two things. A profound shift in demographics, Hispanics will continue to rise in numbers and power and the very real possibility of {terrorists} exploiting our {porous borders} and doing great harm.

If that happens, then you’ll see the {military on the border} but not before that.

Tonight President Bush travels to Mexico to meet with President Fox and the rhetoric will be tough. Both presidents will promise to cooperate to make the {border more secure}.

Meantime, the {Mexican drug dealers} and people {smugglers} will sit down to lavish dinners, grin and plan their next {lawbreaking} ventures.

This segment of The O’Reilly Factor, from March 29, 2006, provides a particularly good example of the dictionary’s use in negative mentions of immigrants. There are twelve negative mentions and one positive mention of immigrants in this short excerpt. Any mention of securing the border, the border being weak, or of illegal immigration is coded as negative. The close proximity of “terrorism” to “border” and “military” to “border” also reflect negative mentions of immigration. Finally, the close proximity of “drug dealers,” “smugglers,” and “lawbreaking” each to “Mexican” are negative mentions of immigration. The only positive mention of immigration in this excerpt is found in the reference to “work permits.”

Maggie Aspillaga, 62, a Cuban immigrant in Miami, had more specific
concerns: a risk of {crime} from {illegal immigrants} and the {costs in health care} and other services. ”They’re taking resources,” she said.

Some young people agree, of course, just as many baby boomers support more {open immigration policies}. In the poll, a majority of Americans in all age groups described {illegal immigration} as a ”very serious” problem.

This story from the New York Times on May 18, 2010, includes four negative portrayals of immigrants and one positive portrayal. As discussed previously, discussions of crime and illegal immigration are coded as negative portrayals. Additionally, the close proximity of “costs in health care” to “immigrants” is coded as a negative portrayal. Finally, like “securing the border” creates a negative mention, calls for more open immigration policies creates a positive mention.

After each story has been coded into positive and negative mentions, the data are aggregated into quarterly time series points. We combined the data into “positive mentions” and “negative mentions” indices again using Stimson’s (1999) algorithm, resulting in a quarterly time series of 129 time points. This is, to our knowledge, the first time the algorithm has been used in such a way. How well each source loads into the index is presented in Table 2. All sources load positively for both positive and negative mentions. The “negative mentions” dictionary accounts for 61.0% of the variation in the indicators and the “positive mentions” dictionary accounts for 43.99% of the variation in the indicators in that series.

Table 2 contains some evidence that, despite the politically distinct points of view expressed in different media outlets, over time, they move in parallel fashion. The positive correlations in both columns indicate that, when there are more negative
portrayals of immigrants on Hardball, there are also more negative mentions on the CBS Evening News and Hannity; similarly, less negative coverage from one outlet is correlated with less negative coverage in the others. In other words, all media sources are positively correlated with the underlying index, both for positive and negative mentions. This is an interesting finding, and perhaps a surprising one, in and of itself, and represents evidence that, even in an era of media fragmentation, it is still possible somehow to speak of “the media” as a singular entity.

The time series presented in Figure 2 illustrates the over time movement of positive and negative mentions of immigrants and immigration from 1990 to 2011. Stimson’s (1999) algorithm standardizes around the means of the indices, which make the two series incomparable. However, the figure is useful as an overtime comparison of each index.

There is a small spike in negative stories following the 9-11 attacks, and since that time period, media coverage of immigrants has become increasingly less positive. The enormous spike in negative coverage coincides with the debate over President George W. Bush’s controversial efforts to pass some form of immigration reform, which proved to be particularly divisive in G.O.P. circles. Negative coverage spiked again at the end of the series, coinciding with the furor over Arizona’s controversial immigration law.

The amount of coverage varies considerably; however, as the corresponding spikes and dips in the two series indicate, more stories about immigration means both more positive and more negative portrayals of immigrants. In fact, the two
Figure 2: Positive and Negative Mentions of Immigrants, 1990:2 – 2011:3
Table 2: Measurement details for media sources, and correlations with positive and negative indices

<table>
<thead>
<tr>
<th>Source</th>
<th>Stories</th>
<th>Date Range</th>
<th>$r_{pos}$</th>
<th>$r_{neg}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC World News Tonight</td>
<td>1715</td>
<td>1979:4-2011:4</td>
<td>0.687</td>
<td>0.774</td>
</tr>
<tr>
<td>CBS Evening News</td>
<td>1607</td>
<td>1990:1-2011:4</td>
<td>0.701</td>
<td>0.674</td>
</tr>
<tr>
<td>Hannity</td>
<td>1805</td>
<td>1998:1-2011:4</td>
<td>0.398</td>
<td>0.716</td>
</tr>
<tr>
<td>O’Reilly Factor</td>
<td>1496</td>
<td>1998:4-2011:4</td>
<td>0.394</td>
<td>0.744</td>
</tr>
<tr>
<td>Hardball</td>
<td>975</td>
<td>1998:2-2011:4</td>
<td>0.490</td>
<td>0.743</td>
</tr>
<tr>
<td>New York Times</td>
<td>6883</td>
<td>1980:2-2011:1</td>
<td>0.133</td>
<td>0.899</td>
</tr>
</tbody>
</table>

series correlate at 0.85. Because our final model includes 79 time points, there are not enough degrees of freedom to overcome the problem of multicollinearity associated with the correlation between the two series when included in the model together. Although in an ideal world with more observations, we would include both positive and negative mentions in our models, we have chosen to model positive media mentions alone. This is just one strategy we could adopt, but we believe it is a reasonable approach to take.

**Results**

What drives the American public in pro- and anti-immigration directions over time? Table 3 provides some initial answers, testing theoretical expectations both about
consumer sentiment and media coverage with straightforward dynamic regressions with lagged dependent variables. Column A of the table tests the proposition that increasingly optimistic consumer sentiment will nudge the public toward a more open stance on immigration. The coefficient of 0.039 is in the expected direction, indicating an association between more optimistic sentiment (higher numbers) and more liberal opinion on immigration, though it does not reach statistical significance in this bivariate setup. With strong dynamics in the model—the lagged dependent variable of 0.877 indicates that about 88% of a shift in an independent variable persists into the following timer period—the total effect of a 1-point shift in consumer expectations is roughly one-tenth of a point in immigration attitudes. Given the typical shifts in consumer sentiment, and the range of variation in the dependent variable, the size of this effect is perhaps larger than such a seemingly small coefficient would initially suggest.

Column B of the table presents the model testing for the effects of shifts in the tenor of media coverage pertaining to immigration on immigration attitudes. The effects there are both strong, statistically significant, and theoretically consistent. That is, higher amounts of positive media coverage of immigrants lead to a more liberal public.

Column C presents the model with both consumer expectations and media mentions included. Here, in the more multivariate context, the effects of economic expectations are larger, and surpass standard levels of statistical significance. A public that is more optimistic about the economic future is also more likely to espouse liberal beliefs about immigration; a public with a bleak economic outlook is more
Table 3: Four models of immigration sentiment in the U.S., 1990 – 2012

<table>
<thead>
<tr>
<th>Variable</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immigration attitudes&lt;sub&gt;<em>t−1</em>&lt;/sub&gt;</td>
<td>0.877*</td>
<td>0.866*</td>
<td>0.829*</td>
<td>0.777*</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
<td>(0.055)</td>
<td>(0.0535)</td>
<td>(0.065)</td>
</tr>
<tr>
<td>Economic expectations</td>
<td>0.039</td>
<td>–</td>
<td>0.048*</td>
<td>0.048*</td>
</tr>
<tr>
<td></td>
<td>(0.027)</td>
<td>–</td>
<td>(0.026)</td>
<td>(0.027)</td>
</tr>
<tr>
<td>Positive media mentions</td>
<td>–</td>
<td>0.202*</td>
<td>0.207*</td>
<td>0.158*</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>(0.08)</td>
<td>(0.075)</td>
<td>(0.081)</td>
</tr>
<tr>
<td>Hispanic population</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>0.472</td>
</tr>
<tr>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>(0.287)</td>
</tr>
<tr>
<td>Constant</td>
<td>6.129</td>
<td>9.46*</td>
<td>7.518</td>
<td>6.346</td>
</tr>
<tr>
<td></td>
<td>(4.765)</td>
<td>(4.31)</td>
<td>(4.601)</td>
<td>(4.60)</td>
</tr>
<tr>
<td>Adj. $R^2$</td>
<td>0.78</td>
<td>0.788</td>
<td>0.797</td>
<td>.803</td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td>86</td>
<td>81</td>
<td>79</td>
</tr>
</tbody>
</table>

*Note: Standard errors are in parentheses.

One-tailed hypothesis test; * = $p < 0.05$.

likely to express conservative sentiments about immigrants. Likewise, as more positive portrayals of immigrants are included in the media, the public is more receptive of immigrants and liberal immigration policy.

Finally, Column D presents the lagged dependent variable model with both independent variables and a control for the percentage of the population that is of Hispanic origin.<sup>7</sup> The effects of economic expectations remain unchanged from Column C. The instantaneous effect of a one standard deviation move in economic expectations ($s= 17.17$) is 0.8 unit shift in immigration attitudes. The cumulative impact is a third of a standard deviation shift in immigration attitudes ($s= 9.84$). Likewise, media mentions remain large and statistically significant, with a one stan-

<sup>7</sup>This quarterly measure is interpolated from yearly data provided by the Bureau of the Census’ yearly Statistical Abstracts of the United States by dividing the difference between two time points by four and summing.
standard deviation move in media mentions ($s = 6.48$) producing an immediate effect of a one unit shift in immigration attitudes and a cumulative impact of half a standard deviation. Because we are measuring positive *mentions*, not *stories*, the impact is particularly noteworthy.

Finally, various rival economic theories were tested in this analysis. Real economic conditions were modeled using unemployment and inflation. In all models, the coefficients for these variables were small and the standard errors were large. The poor performance of these economic indicators suggest, consistent with our theory, that it is subjective, rather than objective, economic conditions which motivate public opinion. Rival theories relating to retrospective economic considerations and personal economic concerns were also tested, with similar results to those of objective economic conditions, again indicating that it is business-oriented economic expectations which move public opinion.

**Implications and conclusions**

The theoretical goal of this project is straightforward: To assess how dynamics of the economy, as well as evolving portrayals of immigrants in the media, account for the over-time dynamics in attitudes toward immigration in the U.S.

Where the cross-sectional literature cannot speak to the dynamics of the economy, we have shown that the American public’s preferences about immigration respond to shifts in the economic climate. The nature of that relationship is particular.
Rather than responding to objective forces like unemployment, public opinion on immigration shifts as a result of subjective consumer confidence. And even within the domain of consumer confidence, our findings are distinctive: The American public is both sociotropic and future oriented in how it assesses immigration. Rather than responding to personal concerns, or how the economy has or has not improved from the past, the public bases its judgment at any given time on a subjective assessment of the likely future of the economy. This finding is notable in particular because it casts the public in a highly rational light. If the economic outlook is rosy, the American public seems to be saying, then yes, give Lady Liberty your tired, your poor. But when the economic future is more bleak, Lady Liberty seems to roll up the Welcome mat; the economic pie might not be big enough for the newcomers to have a slice.

The findings with respect to the media effects are notable for several reasons as well. First, the fact that six rather diverse media sources—at least, diverse by U.S. standards—all move in tandem in their coverage of immigration is striking. When the evening newscasts make more positive mentions of immigrants, so too do the more explicitly liberal outlets, and so too do the explicitly conservative ones. And, likewise, when one outlet offers fewer positive references about immigrants, so do the others. This perhaps-unexpected finding suggests that some common, agenda-setting force is driving all of the media outlets, and at least partially constrains them in their coverage of immigration, regardless of their ideological proclivities. This finding is also tremendously useful in methodological terms, for it allows us to model the media instead of using a single media source as a proxy for it.
Second, the causal findings about the effects that media coverage have on mass attitudes about immigration imply that the public is divided on the issue of immigration—though not divided in the traditional supporters-versus-opponents way that is often portrayed in the media and in scholarship. Rather, these findings suggest that the American public is internally divided on the issue of immigration—that the public is capable of being nudged in one direction or the other, depending on how immigrants are portrayed in the media. Because there is no single story of immigration in the U.S., but rather multiple stories that could be told, even simultaneously, which stories gain prominence at any given time becomes increasingly important, for the answer to that question has serious causal implications for the dynamics of public opinion.

This latter point raises, quite naturally, the question of what forces, then, drive media coverage about immigration. That is a question that interests us for obvious reasons, but is equally obviously beyond the theoretical scope of this particular analysis, and must instead be pursued in future work.
References


