The Stability of Immigration Attitudes: Evidence and Implications[*]

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Abstract

While a lot is known about what explains the contemporary variation in individual immigration attitudes, the literature has so far been rather ambiguous regarding the reality of their stability or change. To remedy this omission, we first lay out theoretical expectations of why (or why not) immigration attitudes on the individual level can be stable across time. Second, we collect the most comprehensive longitudinal datasets from major high-income democracies and outline our empirical strategy to answer the stability question. Third, we analyze the available data and demonstrate remarkably high individual correlations across time, as well as the robustness of immigration attitudes to various exogenous shocks. Overall, while some scholars are skeptical that voters may even have coherent policy preferences, immigration attitudes–or at least beliefs and motivations behind them–seem to be remarkably durable. In the end, we discuss the implications of high attitude stability for the immigration politics literature, including preference determinants and possibilities for changing voters' mind on the issue, as well as explanations for the rise of anti-immigration parties.

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Introduction

With a rise of population movements and a corresponding increase in the political salience of the issue in Western democracies, public opinion on immigration has been gaining a significant amount of scholarly attention. But while we know a lot about what explains the contemporary variation in individual immigration attitudes and preferences[1], the literature has so far been rather ambiguous regarding the reality of their stability or change. Some scholars, for instance, assume that these attitudes are easily susceptible to various information and contextual factors. Other scholars conversely assume that these attitudes are fixed. Although it may possible to find empirical support for either of these perspectives under temporal constraints, the important question is whether voters actually change their mind much on immigration over the long term.

The steadiness or fluctuation of immigration attitudes has critical theoretical implications for several debates within the literature. For example, if immigration attitudes are flexible, then theories that emphasize the importance of predispositions have little validity. Alternatively, if immigration attitudes are stable, then arguments centered on framing effects through elite rhetoric or media coverage have little theoretical traction. Despite the fact that any theory concerning immigration attitudes must make an assumption about their stability, comprehensive empirical assessments of the issue are surprisingly lacking in the literature.

To remedy this omission, we provide the first theoretical and empirical evaluation of the stability of immigration attitudes. Using several high-quality panel surveys from multiple countries that elicit immigration attitudes and employing a variety of methodological approaches, from simple correlations to more sophisticated latent structural equation models, we find that individual views toward immigration are remarkably stable across time, as well as robust to various exogenous shocks.

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[1]While some scholars draw a sharp distinction between (self-reported) attitudes and (revealed) preferences, we follow Druckman and Lupia (2000) and define "preferences" as any rankings derived from comparative evaluations of (or "attitudes" toward) various policies or other objects.

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The remainder of this article proceeds as follows. First, we extensively review the previous literature and lay out theoretical expectations of why (or why not) immigration attitudes on the individual level can be stable across time. Next, we describe the panel surveys used and outline our empirical strategy. In subsequent sections, we test the stability of immigration attitudes through a variety of methodological approaches. The final section discusses the theoretical implications and limitations of our results, as well as potential areas for future research.

Change and stability of immigration attitudes

Central to the question of the stability of immigration attitudes is an extensive debate in the socialization literature concerning the "persistence" of early life experiences versus the "lifelong openness" of individuals to change and update their beliefs (Alwin 1994; Sears 1983). On one side, the "persistence" model emphasizes the importance of early experiences and the enduring nature of political attitudes. On the other side, the "lifelong openness" model underscores the ability of individuals to change and update their beliefs in response to current events throughout their lives. While alternative models exist, they simply alter the probability of attitude change over the course of one's life. Closely related to this debate is the literature on stability of particular political attitudes and preferences. While scholars have largely focused on the high inertness of party identification (Jennings and Markus 1984; Sears and Funk 1999; Green et al. 2002), some have also examined the stability of ideology, group evaluations, political interest, and other issue positions (Alwin and Krosnick 1991; Alwin 1994; Prior 2010). Overall, the conventional wisdom in American politics is that, while many citizens are steady partisans, they hold temporally unstable and ideologically incoherent attitudes (Ansolabehere et al. 2008; Kinder and Kalmoe 2017).

In his seminal paper, using panel data from 1956 to 1960, Converse (1964) finds evidence that a majority of respondents do not hold meaningful opinions and rather have

"non-attitudes" on major policy issues. In subsequent papers, Converse (1970) refines this argument and develops a "black-and-white" model where the population can be divided into two groups. One group with perfectly stable attitudes and another group that responds randomly to survey questions.[2] Feldman and Zaller (1992) extend this model to argue that response instability is caused by citizens holding conflicting policy opinions and answering survey questions with the opinion that is most relevant in their mind (also see Zaller 1992). An important critique of the non-attitudes argument takes issue with Converse's implicit assumption that there is no measurement error in survey responses. Under this view, individuals have stable and coherent attitudes, but confusing survey questions, ambiguous response categories, respondent inattentiveness, the interview context, or simple typographical errors introduce measurement error which attenuates correlation estimates toward zero. Several methods such as measurement models[3] and multiple survey-items (Ansolabehere et al. 2008) have been used to account for this random variation and often find that attitudes are stable.[4]

For better or worse, the literature on public attitudes toward immigration has developed separately from this discussion. As a result, scholars have not seriously considered the theory and empirical reality concerning the stability or change of immigration attitudes. They have also largely ignored the possibility of non-attitudes, as suggested by Converse (1964). Finally, scholars have not theorized or identified when these attitudes are likely to develop (but see Lancee and Sarrasin 2015). All this is perhaps disconcerting given that every account of

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[2]Converse (1970) finds that about two-thirds of the public may not have attitudes toward major policy questions. This estimate is obtained when combining those in the sample estimated to have responded randomly with individuals who answered "I don't know."

[3]Heise (1969); Wiley and Wiley (1970); Achen (1975); Erikson (1978, 1979); Jackson (1983)

[4]As Feldman (1989) notes, the results from these measurement models are consistent with Converse's argument. Both results demonstrate that there are minimal real attitude changes and a large random error component. The conclusions one draws depends on the assumptions about the nature of this random error component. Further tests developed to differentiate these conclusions find minimal if no support for the non-attitudes explanation (Achen 1975; Ansolabehere et al. 2008; Erikson 1979; Dean and Moran 1977; Converse and Pierce 1986; Feldman 1989; Zaller 1990; Converse 2000; Kinder and Kalmoe 2017). Not all findings, however, are consistent with measurement error. For instance, some scholars find that elites exhibit much more stability than the general public (also see Converse and Pierce 1986; Jennings 1992; Hill and Kriesi 2001; Hill 2001).

Figure 1: *Assumptions of stability and change in immigration attitudes literature*
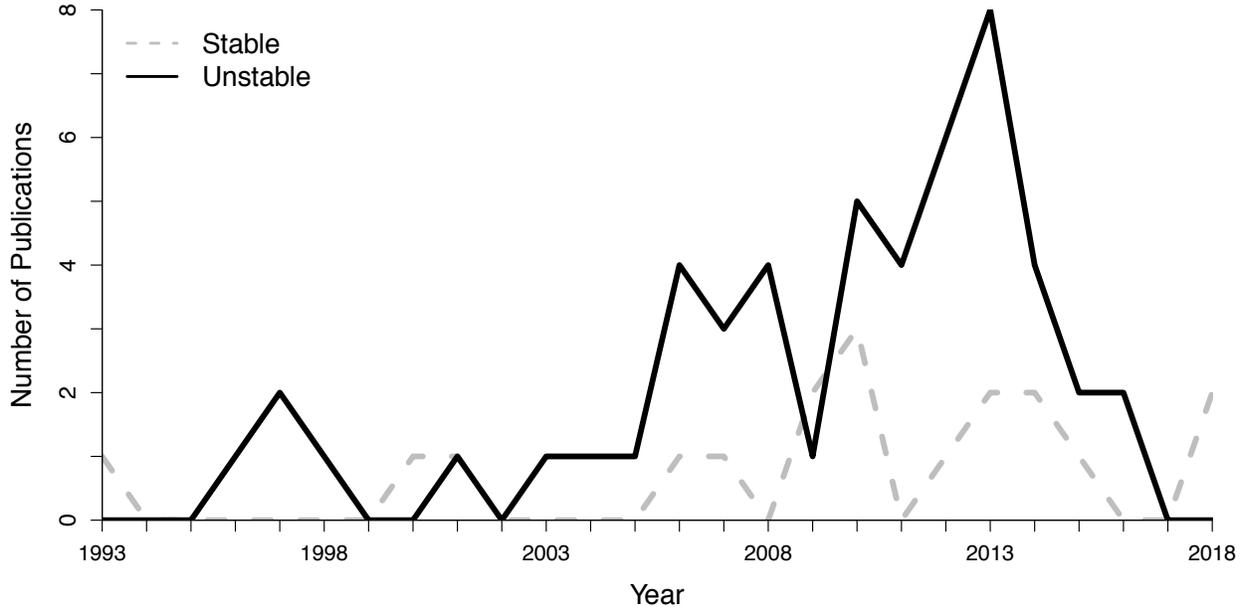
public attitudes toward immigration must make an assumption about their stability.

The literature in fact provides a variety of distinct perspectives on the stability and change of immigration attitudes. As an illustration of this variability, we reviewed an exhaustive list of 72 articles published between 1993 and 2018. In Figure 1, we present the distribution of articles assuming stability and relative flexibility overtime. Of these papers, 74 percent explicitly or implicitly assume that immigration attitudes are flexible, while 26 percent assume attitudes are fairly stable. Further, the number of articles assuming that immigration attitudes are flexible has increased both in absolute and relative terms over the past decade. In short, this analysis suggests most research on immigration attitudes assumes that it is possible to change a voter's mind on the issue in a robust way. At the same time, the few papers that assume otherwise usually treat immigration preferences as a black-box variable. While these assumptions are usually implicit, below we explicate them in a theoretically informed way.

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Expectations of relative volatility

Why would we expect immigration attitudes to be relatively flexible? It is safe to assume that, despite the role of various predispositions (see below), people are never born with any particular political stances and thus it may be hard to think of any "natural" position on international labor mobility. At the very least, one has to understand the notion of national citizenship (which in itself is a relatively new concept) and know something about the current windows of policy discourse. In other words, everyone is socialized in a particular political environment created by a combination of shared and distinct social and information influences. Consequently, one obvious source of temporal variation in individual attitudes is related to changes in voters' beliefs and information.

To that end, a large body of research shows that most people have little knowledge about politics and often systematically misperceive the connection between public policies and their interests (for a review, see Druckman 2014). Likewise, the electorate seems to be ill-informed on the personal and social consequences of immigration. For instance, people tend to overestimate the number of immigrants, as well as their impact on national fiscal systems, wages, and employment (Dustmann and Glitz 2005). The global efficiency gains, as well as the welfare of immigrants themselves, are only discussed among a narrow group of economists (for a review, see Clemens 2011) and may even be ignored by national governments and the public. Would people have different immigration policy attitudes, had they been better informed? According to the "enlightened preferences" literature (e.g., Gilens 2001), the answer should be positive. Similarly, education is found to be one of the strongest predictors of one's immigration attitudes (Hainmueller and Hopkins 2014).

As the growing evidence demonstrates, however, informing voters may not work well for politically polarizing issues such as immigration. Accordingly, Hopkins et al. (2018) find that in seven distinct experiments correcting people's misinformation on immigration numbers does not change their policy attitudes (for similar findings, also see Alesina et al. 2018). At the same time, Johnston and Ballard (2016) show that providing information on

economists' consensus about the favorable impact of immigration may even slightly increase the opposition to allowing more foreigners. Of course, there is some evidence of successful change of individual attitudes due to information[5], but few experimental studies have the capacity to test whether these effects are truly long-lived (over months and years).[6] When it comes to media effects, for instance, Flores (2018) finds that elite cues can make people who are skeptical of immigration even more negative, but these effects are short-lived and thus require constant repetition.

Another prominent perspective on the issue of change examines the relevant contextual effects of demographics. According to "group threat" theories, for instance, people should negatively respond to the increase of an immigrant population. The overall evidence for this idea, however, is mostly observational and rather inconclusive (Pottie-Sherman and Wilkes 2017). One the most ambitious experiments supportive of the "group threat" effects with a strong treatment (i.e., repeated exposure to ethnic outgroups on the train) shows that these effects are small and wane greatly after ten days (Enos 2014).

Finally, the literature that emphasizes the importance of contemporary economic conditions also suggests that immigration attitudes should be relatively flexible.[7] As a country's economy declines (improves), anti-immigration attitudes should increase (decrease). Most of this research, however, focuses on cross-sectional and cross-time differences in *aggregate* public opinion. Using panel data on *individual* attitudes, Goldstein and Peters (2014) demonstrates the lackluster effect of the 2008 financial crisis on Americans' immigration attitudes.

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[5]For instance, Grigorieff et al. (2016) and Facchini et al. (2016) do find that providing information may slightly improve opinion on immigration for those with already negative attitudes (US Republicans and in Japan respectively) and these effects are persistent over a few weeks.

[6]A related way to change people's opinion on immigration–where information cues may not be sufficient–is to reframe it by highlighting certain concerns that people already hold dear (Chong and Druckman 2007). There is some indication, for instance, that people are responsive to the appropriate moral arguments ("compassion" and "equal treatment"), general pragmatism and the appeals to their national economic interest (Gilliam 2010). Similar to information experiments, however, the longevity of these effects in an "informationally rich" competitive political environment is unclear. Furthermore, Spaude et al. (2018) demonstrate that providing various arguments does not increase support for immigration policy proposals.

[7]Lapinski et al. (1997); Gimpel and Edwards (1999); Harwood (1983); Simon and Alexander (1993); Tichenor (2009); Wilkes et al. (2008); Kehrberg (2007).

Expectations of relative stability

Why would we expect immigration attitudes to be stable and durable? First, this would be the case if individual attitudes are primarily driven by underlying stable psychological predispositions related to personality (Gallego and Pardos-Prado 2014), ethnocentrism (Kinder and Kam 2010), altruism (Kustov 2018), or authoritarian and (anti-)egalitarian ideological motivations (Cohrs and Stelzl 2010).

Second, and related, this would be the case if individual attitudes are driven by identity-protective motivated reasoning in a polarized political environment (Lodge and Taber 2013; Kahan 2016). According to this perspective, informing voters about immigration may do little to change their policy preferences, especially if they perceive that their key social or partisan identities are at stake. Given that people rarely change their political allegiances, the prospect for attitudinal change regarding immigration are thus rather scant.

On the societal level, we should also expect the underlying attitudes to be stable if the policy or the related observed environment have not changed much. While it is easy to think of prominent examples of crises (e.g., recent influx of refugees into Europe), international migrants have consistently accounted for only 3% of the world population over the last 100 years. At the same time, ever since the U.S. Chinese Exclusion Act and the introduction of the passport system, national governments have had legal rights to restrict any entry to their territory from abroad. We would also expect the attitudes to be stable if the underlying social norms have been unchanged.[8] Accordingly, despite a few fluctuations and a rise of positive attitudes over the last several years, the Gallup poll shows little change in the aggregate US immigration attitudes since 1966.[9]

In line with these perspectives, there is some corroboration from individual longitudinal data that immigration attitudes are robust to receiving education (Lancee and Sarrasin

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[8]The comparison to the historical stability and recent change in LGBT attitudes across advanced democracies is quite instructive here (Tankard and Paluck 2016).

[9]http://news.gallup.com/poll/1660/immigration.aspx

2015) and even the shocks of an economic crisis (Goldstein and Peters 2014) or a refugee influx (Ferwerda and Hainmueller 2017). While some scholars are skeptical that individuals may even have stable policy preferences (Zaller 1992; Achen and Bartels 2016), immigration attitudes–or at least beliefs and motivations behind them–seem to be remarkably robust.

In sum, every theory concerning the factors that influence immigration attitudes must make an assumption about their stability. While much of the literature assumes that immigration attitudes are quite flexible, there is important variation and persuasive theoretical reasons to think these attitudes are relatively stable. As detailed above, understanding the stability of immigration attitudes provides theoretical leverage to evaluate several key debates within the literature. Our research aims to resolve this disagreement by providing the most comprehensive empirical assessment of the stability question to date.[10]

Data and empirical strategy

To analyze the stability of immigration attitudes, we draw on select high-quality, population-based panel surveys from the United States and Western Europe. We select panels that conduct at least three waves and span at least two years. Table 1 provides a brief description of the panel surveys used and the specific questions. A detailed discussion of each panel survey can be found in Appendix.

It is important to highlight some of the strengths of the specific panels used in this article. First, several panels cover major shocks, which many theories suggest should cause shifts in public opinion toward immigration. Specifically, the *Netherlands' Longitudinal Internet Studies for the Social Sciences (LISS) panel*, covers the financial crisis in Europe. The *British*

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[10]It is important to note that, regardless of the stability of underlying individual immigration attitudes, important political outcomes may still be dependent on the change of related social norms (e.g., Tankard and Paluck 2016) or the salience of immigration as a political issue (e.g., Hatton 2017). Given the absence of high-quality longitudinal data, the examination of norm change is beyond the scope of this paper. At the same time, the evidence of immigration's changing salience as a response to changing context is overwhelming. For instance, it has been shown that increases of local immigrant population may help politicize the issue (Hopkins 2010).

Table 1: Data sources

Panel	Time (Waves)	Questions and Response Categories
LISS (NL) N = 1,730	2008-2017 (9)	1) "In the Netherlands, some people believe that immigrants are entitled to live here while retaining their own culture. Others feel that they should adapt entirely to Dutch culture. Where would you place yourself." 1-5; 1-retain own culture; 5-adapt entirely
		2) "It is good if society consists of people from different cultures." 1-5; 1-fully agree; 5-full disagree
		3) "It should be made easier to obtain asylum in the Netherlands." 1-5; 1-fully agree; 5-fully disagree
		4) "Legally residing foreigners should be entitled to the same social security as Dutch citizens." 1-5; 1-fully agree; 5-fully disagree
		5) "There are too many people of foreign origin or descent in the Netherlands." 1-5; 1-fully disagree; 5-fully agree
		6) "It does not help a neighborhood if many people of foreign origin or descent move in." 1-5; 1-fully disagree; 5-fully agree
BES (GBR) N = 5,315	2/2014-4/2017 (8)	1) "How much do you agree or disagree with the following statements? Immigrants are a burden on the welfare state." 1-5; 1-fully disagree; 5-fully agree
		2) "Do you think that immigration undermines or enriches Britains cultural life?" 1-7; 1-enriches; 7-undermines
		3) "Do you think immigration is good or bad for Britains economy?" 1-7; 1-good; 7-bad
NCP (NO) N = 538	10/2014-3/2017 (6)	1) "In your opinion how great an advantage or disadvantage is it for Norway that immigrants come to live here?" 1-7; 1-great advantage; 7-great disadvantage
	11/2013-3/2017 (8)	2) "Refugees should have the same rights to social assistance as Norwegians have even if they are not Norwegian citizens." 1-7; 1-strongly agree; 7-strongly disagree
TAPS (US) N = 350	7/2012-7/2016 (11)	1) "On the whole, do you think immigration is a good thing or a bad thing for this country today?" 0-good; 1-bad
INES (IE) N = 411	2002-2007 (5)	1) "There should be very strict limits in the number of immigrants coming to Ireland." 1-7; 1-strongly disagree; 7-strongly agree
SHP (CH) N = 1,455	1999-2011 (11)	1) "Are you in favor of Switzerland offering foreigners the same opportunities as those offered to Swiss citizens, or in favor of Switzerland offering Swiss citizens better opportunities?"1-3; 1-in favor; 2-neither; 3-Swiss citizens deserve better opportunities

The number of observations indicates the number of respondents that completed all waves in the panel.

Election Study (BES) panel, the *Norwegian Citizen Panel (NCP)*, and the LISS panel cover the refugee crisis in Europe.[11] The BES also covers the 2016 referendum on EU membership in the UK, which caused substantial media coverage and public debate over immigration. If attitudes remain stable through a major economic contraction and inflow of migrants, they are unlikely to change. Second, several panels include multiple survey-items to elicit immigration attitudes and all panels include more than five waves. For example, the LISS

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[11]Although Norway is not a member of the EU, it is a member of the Schengen zone. Additionally, while none of these countries received a substantial number of refugees, the issue was still very contested in each country.

panel has nine waves and includes six questions that cover numerous elements of the issue, such as immigration levels and asylum applications. The previous literature often only uses single questions and rarely uses panels that extend more than three waves, which requires unrealistic and untestable modeling assumptions. By increasing the number of survey items and time-periods, we are able to relax and empirically test several of these assumptions.

Our main empirical exercise is to determine whether individuals have the same immigration attitudes over an extended period of time. A critical issue to confront when evaluating absolute individual-level attitude stability is measurement error. When scholars develop theories, they often posit a relationship between abstract concepts. To test these theories, however, they must first specify concrete indicators to measure these concepts, which introduces measurement error.

The concept of immigration attitudes is multi-layered and, therefore, selecting a specific question(s) to measure this concept is difficult. For instance, potential questions can either encompass people's views on immigration in general or, conversely, focus on a specific group such as skilled immigrants, refugees, or migrants from certain countries. Furthermore, even for a particular question, there is still some flexibility with regard to question wording and a number of included response categories. All of these factors will likely always introduce some amount of measurement error. Random variation can also be introduced by respondent inattentiveness or fatigue, the interview context, and simple typographical errors.

Measurement error is especially problematic when evaluating the stability question because it attenuates observed correlations across time toward zero (Ansolabehere et al. 2008). Therefore, to assess stability in a compelling way, it is necessary to isolate true changes in immigration attitudes from this random variation. We account for this random response variation in our analysis in two major ways. First, we leverage the several panels that use multiple survey questions to elicit immigration attitudes. By simply averaging these survey-items together, we are able to reduce the variance of the measurement error and, thus, are able to better estimate respondents' underlying immigration attitudes (Ansolabehere et al.

2008). Second, we estimate a measurement model (described below), which evaluates the relative stability of immigration attitudes. While perfect relative stability may coincide with absolute instability when all individuals change by the same degree, we alleviate this concern by also demonstrating the stability of immigration attitudes at the aggregate-level.

Analysis and results

As an overview to our analysis, we evaluate the stability of immigration attitudes through four distinct approaches. First, we analyze aggregate-level stability using the panel surveys described above and several additional cross-sectional surveys. Second, we provide graphical evidence to establish a baseline for the stability of individual-level immigration attitudes. Third, we estimate simple correlations and more complex measurement models to further address potential measurement error. Finally, we attempt to explain this response variation to determine the true nature of the response instability. To preview our results, we find that immigration attitudes are remarkably stable, even across major political and economic shocks. Further, we are unable to explain much of the random variation in the data, which suggests that measurement error is the likely cause.

Aggregate-level stability of immigration attitudes

There is some previous evidence that suggests at the aggregate-level immigration attitudes are generally stable (e.g., Hainmueller et al. 2015). In Figure 2, we provide the most comprehensive evidence of this stability by simply calculating the overall mean of immigration attitudes across the different time-periods. In addition to the panel surveys described above, we also use data from two cross-sectional surveys: the American National Election Study (ANES) and the European Social Survey (ESS). We transform all datasets to have an in-

Figure 2: *Aggregate Level Stability of Immigration Attitudes in the United States, Ireland, Netherlands, Switzerland, Britain, Norway, and the ESS*
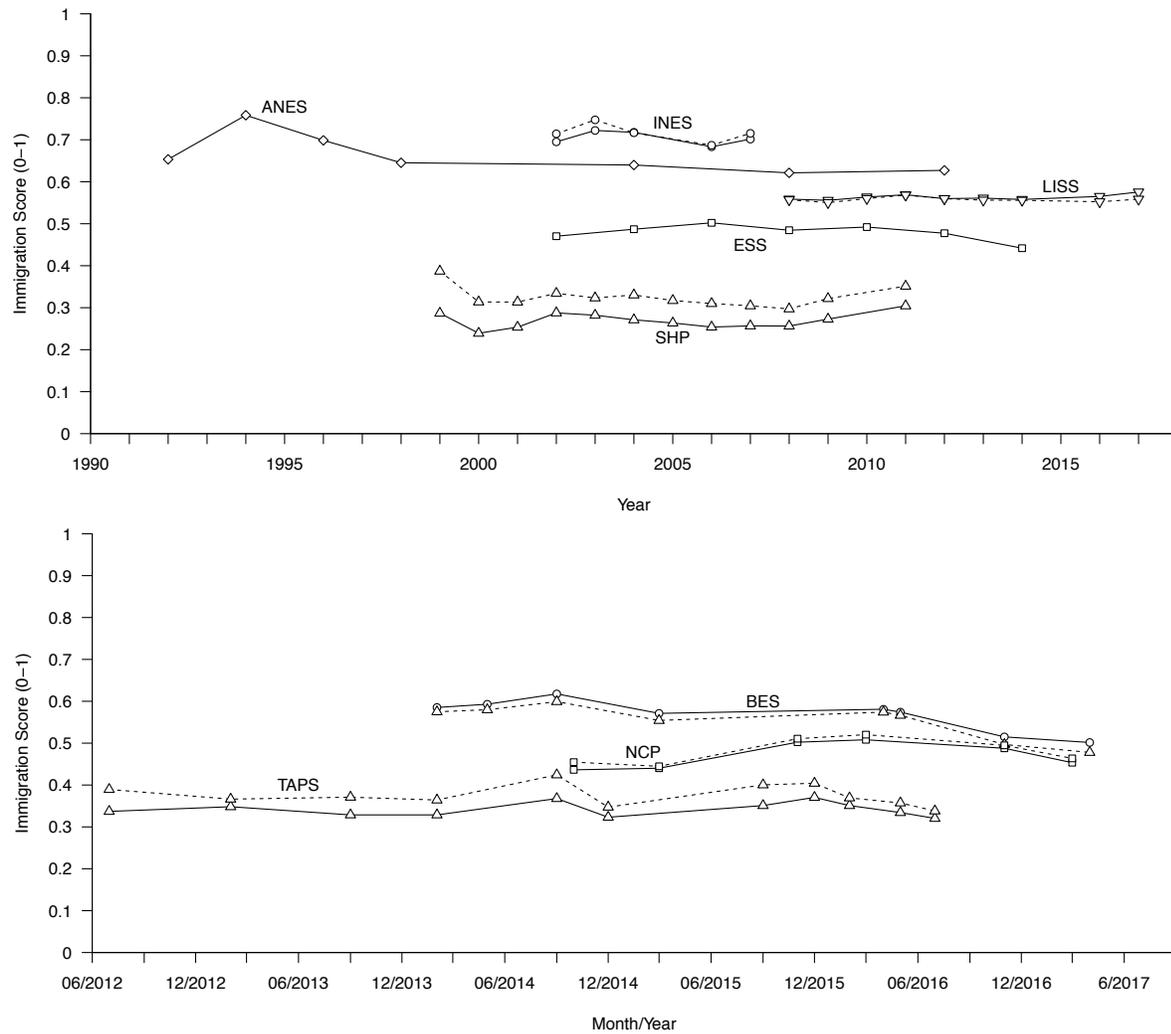
Solid-lines are participants that completed every wave of the panel. Dashed-lines are cross-sectional estimates that include all respondents.

terval from zero to one.[12] The dashed-lines are results when using all respondents in each cross-section. The solid-lines report the results when the sample is restricted to participants that completed all waves. The differences between aggregate immigration attitudes for those who completed all panels and the cross-sectional estimates are quite small and have similar fluctuations, which suggest that panel effects are likely not an issue.

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[12]Weights are used for the cross-sectional surveys. Not all of the panels provide survey weights. However, the results are similar when weights are used for the panels that provide them.

The top panel in Figure 2 plots the immigration score for surveys that are conducted every one or two years. The ANES is the only survey that shows any large shift at the aggregate level. Though, the only substantial shift is when the immigration score jumps from 0.65 in 1992 to 0.76 in 1994. Otherwise, the score ranges from 0.62 (2008) to 0.70 (1996). For the SHP, the immigration score for respondents that completed all waves is consistently about 0.10 lower than the the score for each independent cross-section. However, the overall pattern in the fluctuations are quite similar, which suggests that there is no substantial difference in stability. The difference between the minimum and maximum score is 0.06 for participants who completed all of the waves and 0.09 for the independent cross-sections. The INES, LISS, and ESS all appear to be quite stable at the aggregate level.

The bottom panel in Figure 2 plots the immigration score for surveys that are conducted at least two times per year. Again, at the aggregate level, immigration attitudes appear to be quite stable with no major fluctuations in any of the panels. Additionally, there is no evidence of panel effects given the estimates of the immigration scores when restricting the sample to respondents who completed all waves and the independent cross-sections are quite similar. Overall, at the aggregate-level, immigration attitudes are quite stable in the United States, Ireland, the Netherlands, Britain, Norway, and Europe as a whole.

## Individual-level stability of immigration attitudes

The simplest way to measure the stability of immigration attitudes at the individual-level is to examine the share of respondents who give the same response at different times. The top panel in Figure 3 reports the percentage of respondents who give the same answer in the first wave and in each subsequent wave. The bottom panel in Figure 3 reports the percentage of respondents who do not change by more than one response category. The solid line reports the percentage for respondents who completed all waves and the dotted line shows the percentage for those who completed the first wave and one additional subsequent wave. Since these lines do not diverge and follow the same general pattern, it provides further

evidence that panel effects do not exist in the data. Panel effects would emerge if individuals who are more likely to remain in the panel have a higher level of stability in immigration attitudes. For the top panel, the percentage providing the same response in each subsequent wave as in the initial wave ranges from 32 percent (INES) to 89 percent (TAPS). For the bottom panel, the percentage of respondents who do not change by more than one response category ranges from 71 percent to 94 percent.

Three points are worth mentioning here. First, as the number of categories increase, the stability of immigration attitudes decreases. For example, in the top panel of Figure 3, TAPS, with only two response categories, has the highest percentage of respondents giving the same response in each subsequent wave while the INES, with seven categories, has the lowest percentage. It is quite intuitive that the wide range of response categories allow respondents to report smaller changes in immigration attitudes. If elicited attitudes are influenced by the specific context of when the question survey is conducted, a higher number of response categories is able to capture that fluctuation. Though, if a respondent's true immigration attitude is between two categories, they may alternate between the two categories across the waves. This would indicate a change in attitudes; however, this response variation was introduced by the number of response categories and is measurement error. Alternatively, with a wider range of response of categories, it may be harder for respondents to accurately specify their true attitudes. This especially becomes difficult across multiple years. A seven and eight on a ten point scale may represent the same immigration attitude during different years if the specific context changes the meaning of the values. Additionally, respondents who randomly answer survey questions have a higher probability of selecting the same category when there are fewer options.

Second, as the length of time since the first wave increases, stability in immigration attitudes decreases. However, this decrease is small. The probability of reporting the same answer in the LISS survey in 2008 and 2009 is 0.58. If this represented the true stability of immigration attitudes after one year, it should be expected that the probability of reporting

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Figure 3: *Individual Level Stability of Immigration Attitudes in Western Europe*
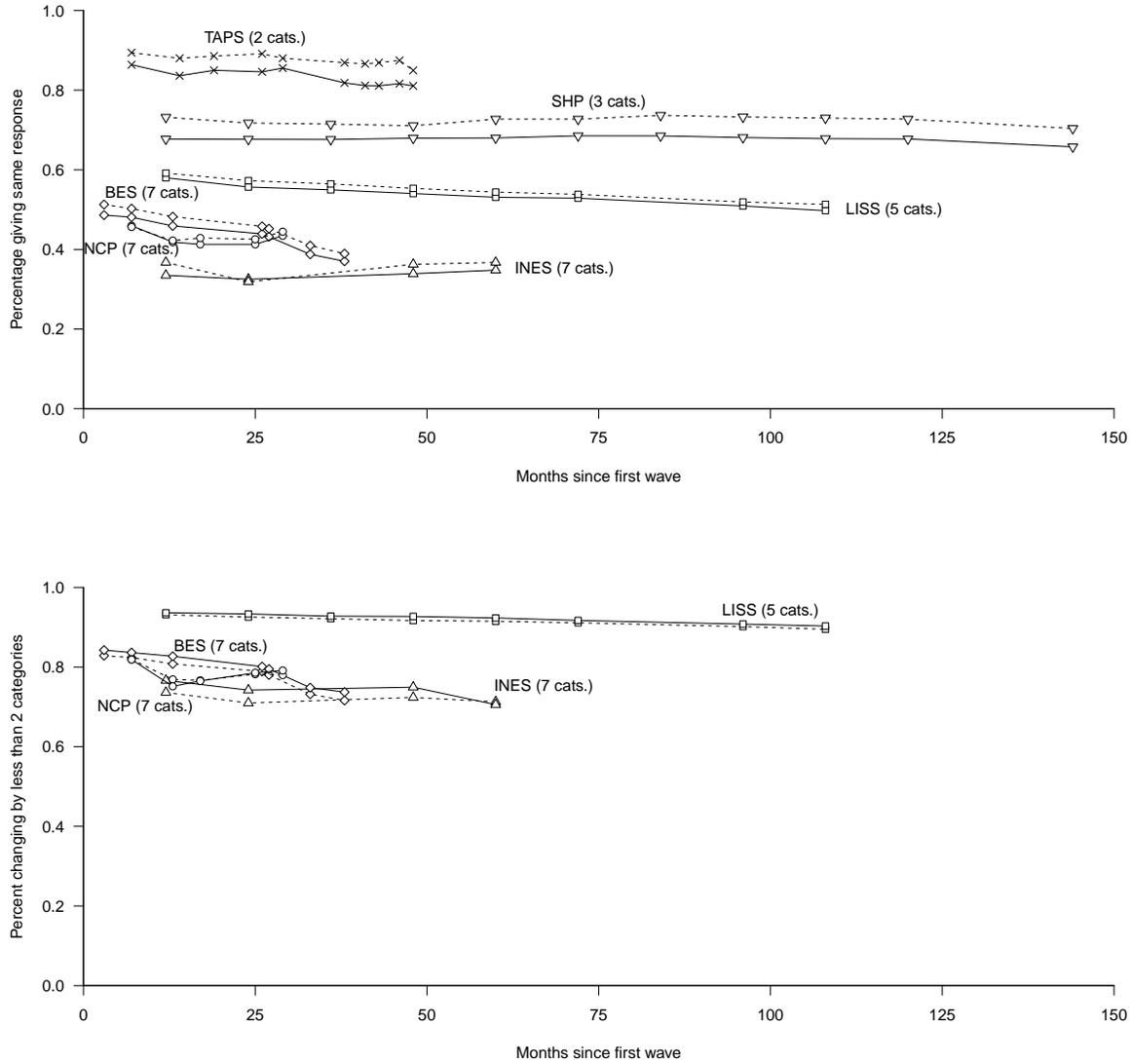
Solid-lines are participants that completed every wave of the panel. Dashed-lines are participants that completed the first wave and an additional wave.

the same attitude after n years is 0.58^n (Prior 2010). Thus, the stability of immigration attitudes between 2008 and 2017 should be $0.58^9 = 0.007$. As Figure 3 clearly illustrates, the empirical probability is much higher (0.50). This finding is consistent with measurement error being present in the data.

Third, the bottom panel of Figure 3 shows a substantial increase in attitude stability.

For the LISS panel, the percentage changing by less than two categories between 2008 and 2009 is 94 percent and this stability statistic only decreases to 89 percent when comparing 2008 and 2017. This is a drastic improvement in stability when only 58 percent gave the same response in 2008 and 2009.

Immigration attitudes appear to remain stable throughout economic turmoil and the refugee crisis. While measurement error certainly may cause some of the variance in responses, it is also possible that the differences in the specific environment in which the survey question was asked is driving these differences. Nevertheless, the results point to stability around a central tendency. Though, a more rigorous analysis of the stability of immigration attitudes requires a measurement model that explicitly specifies a response process.

Measurement error and the stability of immigration attitudes

An individual's response to a survey question includes the true score (a latent variable), which is unobservable, and measurement error. To accurately estimate the stability of immigration attitudes it is necessary to isolate true attitude changes from this error. While there are numerous causes of this random response variation, under certain assumptions about the nature of the error, the effect of measurement error on stability estimates can be appropriately modeled. Our goal in this section is to distinguish between true change in immigration attitudes from variation that is introduced by measurement error. We account for random response variation in our analysis in two ways. First, we follow Ansolabehere et al. (2008) and leverage panel datasets that use multiple survey-items to measure immigration attitudes and simply calculate the correlation coefficients between the first and last waves. We are able to reduce the variance in the measurement error and better estimate respondents' true attitudes by simply averaging these survey-items together. Second, we estimate latent structural equation models to evaluate the relative stability of immigration attitudes.

First, following Ansolabehere et al. (2008) and Converse (1964) we examine the stability

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Table 2: *Spearman rank correlations between first and last waves for scales with multiple survey items and average individual items*

Panel	Length of Panel	Number of Items	Correlations Between	
			Scales with Multiple Survey Items	Individual Survey Items (Average)
LISS	2008-2017	6	0.720 (0.749)	0.507 (0.540)
BES	02/2014-04/2017	3	0.813 (0.824)	0.712 (0.737)
NCP	10/2014-03/2017	2	0.721 (0.744)	0.630 (0.651)
INES	2002-2007	1		0.363 (0.411)
SHP	1999-2011	1		0.443 (0.472)
TAPS	07/2012-07/2016	1		0.587 (0.660)

Correlations in parentheses are for respondents who completed all waves in the survey.

of immigration attitudes by estimating simple correlations between the first and last waves. For each panel, we construct scales, which are simply the averages between the survey-items for each wave. We then calculate the correlations between the first and last waves. Column 4 in Table 2 reports these correlations. In Column 5, we also report the average correlations between the first and last waves when using only a single survey-item. Correlations in parentheses are estimates when only using respondents who completed all panel waves.

The correlations when using more than one survey item are much larger compared to the correlations only using a single item. This result is consistent with measurement error being present in the data. Specifically, for the LISS panel, the estimated correlation between the survey responses in 2008 and 2017 when using the six survey questions equals 0.720, while the average correlation when using each question separately is only 0.507, or about a 42 percent increase in the correlation estimate. Importantly, during this time period, the Netherlands and the EU experienced a significant financial recession and a refugee crisis. The differences between the correlation estimates are smaller for the NCP and BES; however, they are still meaningful. The NCP and BES also cover the refugee crisis and, again, the results still provide evidence of relatively high stability. Further, the BES panel spans the referendum on EU membership in the United Kingdom, where immigration played a prominent role. Overall, these results provide simple and persuasive evidence that immigration attitudes are

very stable, even during periods where the previous literature would suggest large changes.

We now move to a more sophisticated analysis of stability by estimating measurement error models. An individual's response to a survey question is a combination of their true unobservable attitude toward immigration and measurement error. More formally, let x_t be the respondent's answer to the survey question at time t and is a function of their latent immigration attitudes (Y_t) and an error term (ϵ_t);[13]

$$x_t = \alpha_t * Y_t + \epsilon_t, \tag{1}$$

which represents the measurement component of the model. The relationship between the latent immigration attitudes at the different values of t is the structural component and is the element of interest in the model. It is modeled as a lag-1 process, which implies that that immigration attitudes at t are a function of the respondent's immigration attitudes at $t-1$ and some disturbance term;

$$Y_t = \beta_{t-1} * Y_{t-1} + \delta_t \qquad for\ t = 2, 3, ..., T \tag{2}$$

$$Y_t = \delta_t \qquad for\ t = 1. \tag{3}$$

After accounting for immigration attitudes at $t-1$, immigration attitudes at t do not depend on earlier values.[14] By including the disturbance term (δ_t), the model implies that immigration attitudes at time $t-1$ do not perfectly predict immigration attitudes at time t.[15] The β coefficients are the stability estimates and the main quantity of interest. Values closer to one imply a strong relationship between the underlying latent immigration attitudes in subsequent waves and values closer to zero imply a weak relationship.

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[13]The error term has mean of zero and a variance of $\sigma^2_{\epsilon_t}$.

[14]As Prior (2010) notes, the intercept in the model is eliminated since we express $X_{1,2,...T}$ as deviations from the wave means.

[15]We assume that the mean of δ_t is zero and estimate estimate its variance σ^2_δ.

To estimate parameters of interest, several baseline assumptions are needed. First, we assume that the disturbance terms are uncorrelated, $E[\delta_t, \delta_s] = 0$ for $t \neq s$; second, we assume the disturbance terms are not correlated with latent immigration attitudes in the previous waves, $E[\delta_t, \pi_s] = 0$ for t>s; third, we assume that the error terms are uncorrelated with latent immigration attitudes, $E[\epsilon_t, \pi_t] = 0$; fourth, we assume that the error terms are uncorrelated with the disturbance terms, $E[\epsilon_t, \delta_t] = 0$; and finally, we assume that the errors are uncorrelated, $E[\epsilon_t, \epsilon_s] = 0$ for $t \neq s$. With only three-waves of data, additional assumptions are required. since there are more unknown parameters than there are degrees of freedom.[16] A popular approach is to follow to Wiley and Wiley (1970) by assuming the measurement error variances are constant across the different waves ($\sigma_{\epsilon_1} = \sigma_{\epsilon_2} = \sigma_{\epsilon_3} = \sigma_\epsilon$) and by assuming $\alpha_t = 1$.[17]

Several of these assumptions are perhaps unrealistic. For example, it is likely that the error variance declines over time as respondents become more familiar with the survey design. These errors may also be correlated if respondents are consistently confused by the same elements. When additional waves and multiple survey-items are used to measure latent variables, these assumptions can be relaxed and empirically tested. The previous literature rarely uses panel datasets with more than five waves and multiple survey-items. By moving beyond a three-wave, single-indicator model we are able to relax the assumptions concerning equal error variance and uncorrelated error terms. Additionally, as the number of waves and survey-items increase, so does the precision of the estimates.

Since panels with multiple survey-items provide the most leverage to examine the stability of immigration attitudes, we limit our analysis and discussion to these multiple indicator models. The latent structural equation model does not drastically change with multiple-

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[16]There are two stability coefficients (β_{21}, β_{32}); three disturbance terms ($\delta_1, \delta_2, \delta_3$); three error variances ($\epsilon_1, \epsilon_2, \epsilon_3$); and three α_t terms. There is a total of eleven unknown parameters, but only six degrees of freedom.

[17]The assumption that $\alpha_t = 1$ implies the latent variable is on the same scale as the scale of the observed variable. An alternative set of assumptions is given by Heise (1969).

indicators. Only the measurement component of the model slightly changes to reflect the multiple survey items included:

$$x_{i,t} = \alpha_{i,t} * Y_t + \epsilon_{i,t}, \tag{4}$$

where i represents a specific question. To estimate this model, we must constrain one factor loading to one, which assigns the scale of that factor to the latent variable Y_t. Following standard practice, we fix the factor that has the highest loading.

The results are reported in Table 3. In Columns (1), (3), and (5), we estimate models that assume the error terms are independent. The stability coefficients are all near 1.00, indicating high stability from one time period to the next. Since the panels have more than three waves and multiple indicators, it is important to assess model fit. We use several measures to evaluate model fit.[18] First, the Comparative Fit Index (CFI) measures the extent to which the model improved from the baseline model. The Tucke and Lewis Index (TFI) is an extension of the CFI and accounts for the degrees of freedom in the two models. Test statistics close to 1.00 indicate a good fit.[19] Additionally, the Standardized Root Mean Square Residual (SRMSR) calculates the square root of the total squared deviations between the observed and predicted covariances. Finally, we also calculate the the Root Mean Square Error of Approximation (RMSEA), which assesses the fit between the model and covariance matrix while accounting for the number of parameters estimated. For both the SRMSR and RMSEA, values less than 0.08 suggest the model fits the data very well. The fit statistics for the three panels suggest that the models can be improved. None of the models consistently meet the criteria for the goodness of fit tests.

It is likely that the error terms for each question are related across time periods since these questions do not change across the panel studies. If respondents make an error on a

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[18]The χ_2 is often not suitable because it always increases as the number of cases increase, which is problematic given social scientists usually want to maximize the number of cases.

[19]Values above 0.90 indicate a good fit.

Table 3: Measurement Models for Stability in Immigration Attitudes

	LISS		BES		NCP	
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
$\beta_{1,2}$	1.00 (0.02)	0.95 (0.02)	0.97 (0.01)	0.93 (0.01)	1.13 (0.06)	0.95 (0.05)
$\beta_{2,3}$	0.97 (0.02)	0.96 (0.02)	0.99 (0.01)	0.98 (0.01)	0.96 (0.04)	0.98 (0.05)
$\beta_{3,4}$	0.96 (0.02)	0.96 (0.02)	0.98 (0.01)	0.96 (0.01)	1.07 (0.03)	1.08 (0.05)
$\beta_{4,5}$	1.02 (0.02)	1.02 (0.02)	0.98 (0.01)	0.98 (0.01)	0.95 (0.03)	0.93 (0.04)
$\beta_{5,6}$	0.95 (0.02)	0.94 (0.02)	0.99 (0.01)	0.99 (0.01)	0.95 (0.03)	0.92 (0.04)
$\beta_{6,7}$	1.03 (0.02)	1.04 (0.03)	1.00 (0.01)	1.00 (0.01)		
$\beta_{7,8}$	1.00 (0.02)	1.00 (0.02)	0.99 (0.01)	0.98 (0.01)		
$\beta_{8,9}$	0.99 (0.02)	0.99 (0.02)				
Corr. χ^2	23372.17	1381.73	18156.34	1097.32	999.34	21.53
df	1369	1037	245	148	49	16
p-value	0.00	0.00	0.00	0.00	0.00	0.16
CFI	0.70	1.00	0.90	0.99	0.83	1.00
TLI	0.69	0.99	0.88	0.99	0.77	1.00
RMSEA	0.10	0.01	0.12	0.03	0.19	0.03
SRMSR	0.08	0.02	0.03	0.01	0.08	0.01
AIC	204710.86	183384.41	379997.84	363132.82	19488.93	18577.13
N	1,730	1,730	5,315	5,315	538	538

This table reports the structural coefficients for each panel survey with robust standard errors in parentheses. For columns 1, 3, and 6 we make no assumptions about the relationships between error terms fro each question. For columns 2, 4, and 6 we estimate models that remove constraints on the relationships between error terms.

specific question during one wave, they will probably make a similar error on the question during other waves. Further, the error terms for the questions within the same time period may be related. This would be the case if the specific context at the time of the survey influences respondents' answers. We use Modification Indices and Lagrange Multiplier tests to examine potential violations in the samples. In Columns (2), (4), and (6), we estimate models removing these constraints. The stability coefficients are all still close to 1.00. Importantly, the fit of the models drastically improve. The CFI and TLI values for the three panels are all 0.99 or higher. Additionally, the RMSEA and SRMSR values are all below 0.08 and most are below 0.02. It appears the models fit the data very well.

Overall, the results from the measurement models suggest that immigration attitudes

are highly stable. The lowest estimated stability coefficient is only 0.93. Further, of the 40 stability coefficients estimated, only ten have 95 percent confidence intervals that do not include 1.00.[20] This stability is quite remarkable given the recession and the refugee crisis during this time period. Importantly, the previous literature would suggest that the economic downturn and influx of migrants should cause a change in immigration attitudes. Thus, finding stability in immigration attitudes during this period should strengthen our confidence that attitudes are stable when the economic and political climate are less volatile.

Variation in the stability of immigration attitudes

The preceding analysis provides robust evidence that the source of instability in immigration attitudes is due to a random error component and not actual attitude change. These structural equation models assume that this random variation is measurement error; however, other scholars attribute this random component to non-attitudes (Converse and Pierce 1986). In this section, our goal is distinguish between these competing explanations by attempting to directly model this random error component. In other words, are we able to explain the variation in response instability? We limit our analysis to the LISS and BES panels because they include the necessary predictor variables.[21]

Following Feldman (1989); Erikson (1979), we derive an estimate of response instability by computing the variance of the responses for each individual.[22] Table 4 reports the distributions of the instability estimates for each separate question and the scales from the BES and LISS panels. For each measure, there are respondents who give completely consistent

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[20]Measurement error models do not always produce estimates near 1.00. For example, Feldman (1989) finds low stability in respondents' candidate evaluations and Green (2004) shows low to moderate stability for presidential evaluations.

[21]Further, for this analysis, we only exclude respondents if they are missing more than two waves of data. This yields a larger N and arguably reduces potential issues caused by panel attrition.

[22]An alternative technique is to derive an estimate directly from the measurement model by using the error variance from the residuals of the true scores (Achen 1975; Feldman 1989). When the measurement model is correctly specified, this strategy produces an unbiased estimator of the error variance, but is noisy since it relies on the residuals. Since we find no evidence of attitude instability, we rely on the variance in responses because it produces a more reliable estimate of the response instability Feldman (1989).

Table 4: Distribution of Response Instability Estimates

LISS Panel	Mean	SD	Min.	Max.	80th	90th
Adapt to Culture	0.08 (2.00)	0.08	0.00	1.03	0.11	0.16
Cultural Diversity	0.30 (2.00)	0.28	0.00	2.67	0.47	0.67
Asylum	0.25 (2.00)	0.25	0.00	2.62	0.40	0.53
Welfare Access	0.31 (2.00)	0.34	0.00	3.28	0.44	0.69
Too Many Foreigners	0.43 (2.00)	0.44	0.00	3.56	0.69	0.99
Neighbor Diversity	0.31 (2.00)	0.34	0.00	3.92	0.44	0.67
BES Panel						
Scale	0.43 (4.00)	0.49	0.00	5.96	0.63	0.93
Cultural Effect	0.78 (4.00)	0.93	0.00	9.00	1.23	1.92
Economic Effect	0.78 (4.00)	0.92	0.00	9.00	1.22	1.84
Welfare Effect	0.38 (2.00)	0.43	0.00	3.61	0.53	0.82

Values in parentheses are the expected variances if respondents were answering survey questions randomly.

answers across the waves and for two items in the BES panel at least one individual produced the highest possible variance, which would occur if a respondent alternated between the opposite ends of the survey scale.

We can leverage these summary statistics to probe the validity of the black-and-white model proposed by Converse. If stability varies across the population, where a small minority have highly stable attitudes and a large majority have non-attitudes as Converse suggests, then the instability estimates for the LISS (BES) panel should be near 2.00 (4.00). Though, contrary to Converse, the averages of the response instability estimates are substantially lower across each of the questions. The mean values are consistently 80 percent lower than what would be expected if respondents had non-attitudes concerning immigration.[23] Even if we alter the model to allow for a larger portion of respondents to have stable attitudes, the black-and-white model does not provide a good explanation for the estimates. For the measures included in the LISS panel, 80 percent of the respondents have instability estimates below 0.67; and for all but one question, the estimates are below 0.50. The distribution is similar for the BES panel. Finally, these summary statistics also suggest that the amount

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[23]While Converse (1984) argues that guessing does not have to follow a random model, alternative models would still produce larger differences from what would be expected.

of variation in respondents' answers is rather limited. This is important because even if all of this variation is not entirely caused by measurement error, there is still a relatively high amount of stability in immigration attitudes.

To better understand the source of this instability, it is also necessary to model the variation directly. We do so by regressing response instability on a series of predictor variables.[24] The black-and-white model proposed by Converse posits that respondents can be divided into two groups: a minority with stable attitudes and a large majority with non-attitudes. Converse proposes a few ways to divide the population into these two groups, such as political sophistication[25] or salience/centrality of the issue. While the BES and LISS panels do not include identical questions, both provide adequate measures to test Converse's arguments.

For the BES panel, we include four variables to test the black-and-white model. First, we construct a variable to test Converse's claim that instability is a function of issue salience. During four waves, respondents were asked to indicate the most important issue facing the country at the time. The variable equals one if the respondent indicated that immigration is the most important issue for all four waves. Next, we create a variable to measure political knowledge. The BES asks respondents to identify the names and positions of several foreign leaders, to identify their district representative in Parliament, and to answer various factual questions about the European Union. There are ten questions total. To construct the variable we simply sum the number of correct answers for each respondent. We rescale the variable to have a range from zero to one. We also included variables to measure respondents' education and political attention. Education has three categories (0 = did not finish HS, 0.5 = HS grad, 1 = college grad) and political attention ranges from zero (min. interest) to one (max. interest) with eleven response categories.

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[24]Since many of these of variables are measured during each wave, we take the mean response for each respondent. This helps to ensure any null results are not caused by measurement error attenuating the coefficients to zero.

[25]Previous analyses have operationalized political sophistication in various ways, such as education, knowledge, political interest/attention, and/or political involvement.

For the LISS panel, we include several variables to measure interest and attention to politics; respondents' interest in the news (0 = min interest, 1 = max interest, 3 categories); interest in politics (0 = min interest, 1 = max interest, 3 categories); whether they read domestic and international news articles (0 = min read, 1 = max read, 8 categories); and whether they are comfortable discussing politics (0 = min comfortable, 1 = max comfortable, 3 categories). We create a measure of political participation by averaging answers to six questions that ask whether respondents tried to influence policy in various ways.[26] We also include a variable to measure whether the respondent completed higher education (0 = no higher education, 1 = completed higher education). To measure political information, we follow Feldman (1989) who shows that the error variance for candidate evaluations declined for individuals who could recognize lesser-well-known candidates. The underlying logic is that individuals who can identify the lesser-known candidates are likely to be better informed about campaigns and elections (also see Zaller 1986). We constructed the measure by summing the number of politicians each respondent was able to evaluate (26 possible). We rescale the variable to have a range from zero to one.

Finally, for both panels, we also include several other variables: female, a linear and quadratic term for age, mean immigration score, and ideology. We rescale ideology and the immigration score to have a range from zero to one. For the BES panel we also include a variable to measure the ethnicity of the respondent, which equals one if the respondent is white and British and zero otherwise.[27]

The results for the LISS and BES panels are reported in Tables 5 and 6, respectively.

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[26]Questions ask respondents whether or not they had tried to influence policy by raising issues to newspapers, political organizations, politicians, political action groups, engaging in protests, and participating in a political campaign.

[27]As Feldman (1989) notes, it is likely that the stability of some attitude is a function of the degree of extremity in the respondent's answers. Specifically, extreme positions may indicate a more developed or strongly held belief. We do not include these are predictor variables because they are post-treatment and will likely bias the coefficients of interest. In fact, Feldman (1989) argues that the political sophistication and salience variables operate indirectly through extremity. Further, the relationship of extreme positions and stability may result from various other measurement error issues (see Feldman (1989)).

Across the models we are unable to explain much of the variation in the instability estimates, which provides support for the measurement error model. There are several general patterns worth mentioning. First, in both panels the results provide limited support for the black-and-white model proposed by Converse. For the LISS panel, none of the political sophistication variables explain a substantial amount of variation in response instability. Specifically, political interest, news interest, political knowledge, and political participation are statistically significant in some models, but are usually in the opposite direction. The results for reading international and domestic news articles and discussing politics are mixed, though the estimates are never substantial. Education is consistently in the expected direction and is significant in most models; however, the estimated effects are quite small. For model 1 (scale), having a college education only decreases response instability by less than one-fifth of a standard deviation.

The results are similar for the BES panel. Political attention is consistently significant across the models, but is in the wrong direction. Political knowledge and education are consistently negative and statistically significant. Though, the estimated effects are small. Being a college graduate only decreases response instability by less than one-fourth of a standard deviation. A standard deviation shift in political knowledge only causes less than a one-tenth of a standard deviation decrease in response instability. Issue salience is negative and significant across the models. Indicating immigration is the most important issue facing the country for all four waves reduces response instability by less than one-third of a standard deviation. It is important to emphasize only 2.5 percent selected immigration as the most important issue for all four waves. Overall, these results provide limited support for the black-and-white model proposed by Converse. While many of the variables may be significant, they do not explain much of the variation in response instability, which suggests a lack of explanatory power for the black-and-white model.

Second, the results for the mean immigration score are somewhat mixed. For seven of the eleven models, the score is positively correlated with the instability estimates, which

Table 5: Results for Response Instability Models (LISS Panel)

	(1) Scale	(2) Adapt to Culture	(3) Cultural Diversity	(4) Asylum	(5) Welfare Access	(6) Too Many Foreigners	(7) Neighbor Diversity
Immig. Score	0.083*	-0.113	0.707*	-0.382*	1.327*	0.197*	-0.146+
	(0.018)	(0.076)	(0.055)	(0.074)	(0.094)	(0.074)	(0.076)
Pol. Interest	0.014	0.305*	0.085+	-0.008	0.085	-0.032	0.081
	(0.016)	(0.078)	(0.048)	(0.065)	(0.082)	(0.065)	(0.066)
News Interest	0.03+	-0.519*	0.031	0.092	0.185*	0.212*	0.034
	(0.016)	(0.077)	(0.047)	(0.064)	(0.081)	(0.064)	(0.066)
Participation	0.025	-0.025	0.152*	0.092	0.193+	0.054	0.003
	(0.02)	(0.053)	(0.06)	(0.081)	(0.102)	(0.081)	(0.083)
Read News	-0.007	0.104*	-0.088*	-0.084	-0.146*	-0.057	0.001
	(0.014)	(0.052)	(0.043)	(0.058)	(0.073)	(0.058)	(0.059)
Discussion	-0.032*	0.088	-0.021	-0.071	-0.061	-0.04	-0.118*
	(0.011)	(0.066)	(0.034)	(0.046)	(0.058)	(0.046)	(0.047)
Knowledge	0.018	-0.035	0.032	0.088+	0.009	0.036	0.106*
	(0.012)	(0.047)	(0.037)	(0.05)	(0.063)	(0.05)	(0.051)
Education	-0.013*	-0.126*	-0.03*	-0.077*	-0.003	-0.036*	-0.023
	(0.004)	(0.037)	(0.013)	(0.017)	(0.022)	(0.017)	(0.018)
Ideology	-0.018	0.061	-0.062+	0.021	-0.069	-0.043	-0.023
	(0.012)	(0.041)	(0.035)	(0.048)	(0.060)	(0.048)	(0.049)
Age	-0.530*	-0.054*	-0.874*	-0.757*	-0.780*	-1.020*	-0.742*
	(0.079)	(0.014)	(0.146)	(0.199)	(0.251)	(0.198)	(0.202)
Age^2	0.435*	-0.009	1.02*	0.941*	0.735*	1.36*	0.749*
	(0.081)	(0.039)	(0.2)	(0.273)	(0.344)	(0.271)	(0.278)
Female	-0.007+	-0.326*	-0.033*	-0.009	-0.035+	-0.016	-0.031+
	(0.004)	(0.162)	(0.012)	(0.017)	(0.021)	(0.016)	(0.017)
Adj R^2	0.08	0.089	0.158	0.034	0.163	0.029	0.02
N	1648	1648	1648	1648	1648	1648	1648

The table reports the results for the response instability estimates. Response instability is the variance in a respondent's answers. The respondent's age is divided by 100 for easier interpretation. $^+p<0.10$; $^*p<0.05$

suggests that those with higher levels of anti-immigration attitudes have higher instability estimates. However, for four of the models the relationship is either reversed or the coefficient is insignificant. Perhaps the most reasonable explanation for these divergent results is that supporters and opponents of immigration understand different aspects of the issue better and, thus, either have a better understanding of the specific question or have more crystallized views on the specific issue. Importantly, the estimated effects are not substantial. Though,

Table 6: Results for Response Instability Models (BES Panel)

|	(1) Scale	(2) Cultural Effect	(3) Economic Effect	(4) Welfare Effect
Immig. Score	0.194*	0.146*	0.840*	-0.031
	(0.031)	(0.058)	(0.055)	(0.027)
Pol. Attention	0.11*	0.074	0.314*	0.082*
	(0.037)	(0.069)	(0.065)	(0.032)
Salience	-0.145*	-0.309*	-0.232*	-0.069*
	(0.021)	(0.039)	(0.037)	(0.018)
Knowledge	-0.162*	-0.185*	-0.302*	-0.045
	(0.037)	(0.067)	(0.064)	(0.032)
Education	-0.115*	-0.241*	-0.222*	-0.049*
	(0.018)	(0.033)	(0.032)	(0.016)
Ideology	-0.015	0.055	0.000	0.073*
	(0.029)	(0.053)	(0.050)	(0.025)
Age	-0.793*	-0.902+	-1.973*	-0.360
	(0.274)	(0.506)	(0.479)	(0.237)
Age^2	0.735*	1.004*	1.936*	0.231
	(0.264)	(0.488)	(0.462)	(0.228)
Female	-0.018	-0.003	-0.042*	-0.018+
	(0.012)	(0.022)	(0.021)	(0.01)
Ethnicity	0.020	-0.007	0.042	-0.019
	(0.020)	(0.037)	(0.035)	(0.017)
Adj R^2	0.022	0.018	0.069	0.006
N	7541	7541	7541	7541

The table reports the results for the response instability estimates. Response instability is the variance in a respondent's answers. The respondent's age is divided by 100 for easier interpretation. $^+p<0.10$; *p<0.05

for both scales, the estimated coefficients are consistently significant and positive, suggesting in general those with anti-immigration attitudes have higher variation in responses.

Third, an individual's age is also important in predicting variation in the response instability estimates. Across the different questions, the results suggest that young individuals are more likely to have higher response instability.[28] For easier interpretation, Figure 4 presents the marginal effects from column (1) in the LISS panel. As the age of the respondent increases, instability decreases until around age 60 when it slowly begins to increase. The

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[28]We divide age by 100 to rescale the estimated coefficients in both the BES and LISS panels.

Figure 4: *Response instability in immigration attitudes by age (LISS panel)*
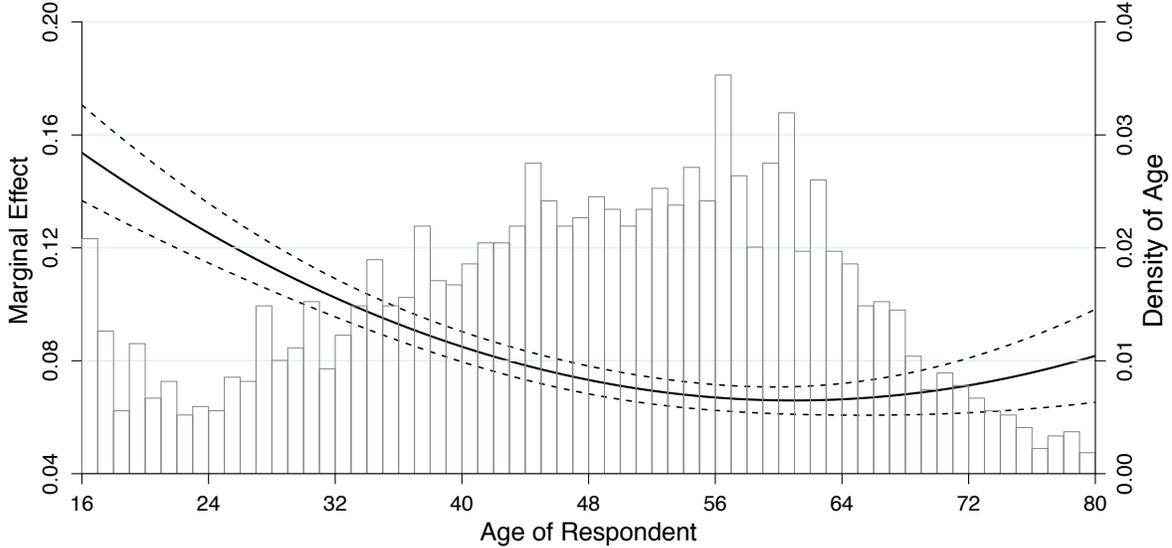
results are similar across the models in both panels. This effect is also substantial, moving from age 20 to age 30 decreases response instability by about two-fifths of a standard deviation. This difference increases to nearly a full standard deviation when moving from age 20 to age 50. The results strongly suggests that the age of the individual is very important in explaining variation in response instability. Theoretically, this finding speaks to the large literature examining when individuals begin to form their core political attitudes and beliefs. The impressionable years hypothesis suggests that young adults are beginning to form their core attitudes. Since young adults do not have extensive political experiences they are susceptible to external shocks and should have higher response instability.

Overall, the results provide limited support for the black-and-white model proposed by Converse. First, the level of response instability is significantly lower than what would be expected if non-attitudes existed in a large majority of the population. Further, for both the BES and LISS panels, we are only able to explain a small amount of the variation in the response instability estimates, which suggests that assuming at least most of the random variation in the data is measurement error is appropriate. Thus, these results provide additional evidence that immigration attitudes are remarkably stable, even across financial and refugee crises.

Discussion

The previous literature on immigration attitudes has largely ignored the empirical reality and the subsequent theoretical implications of the persistence of immigration attitudes. While a majority of the previous literature implicitly or explicitly assumes that attitudes toward immigration are quite flexible, there is considerable variation. Further, research that assumes stability in immigration attitudes provides no empirical support for the validity of this assumption. In this article, we extensively analyzed the empirical reality concerning the stability of immigration attitudes using multiple panel surveys and a variety of methodological approaches. We find strong support to suggest that immigration attitudes are extremely persistent and hard to change, even during exogenous economic and political shocks.

Of course, our research is not without caveats and limitations. Most important, the available data do not allow differentiating between attitudes and social norms. For instance, it is possible that the underlying reason why we observe stability of immigration attitudes is a constant legal and policy environment regarding immigration in most countries (Tankard and Paluck 2016). Therefore, our results do not at all imply that immigration attitudes cannot be changed in principle or be different under alternative political institutions.[29]

Furthermore, our work does not examine other changes that may be occurring at the individual level. Besides stable immigration attitudes, changing party positions may play an important role in altering the political behavior of individuals. As parties' stake out divergent positions on immigration, the impact of new policy stances may lead to changes in individual party affiliation similar to how changing positions on civil rights led many whites to defect from the Democratic party (Carmines and Stimson 1990; Caughey and Warshaw 2018). While some research has been done in this area (Hajnal and Rivera 2014), further examination of how enduring opinions can lead to partisan change may be warranted.

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[29]There is some evidence of the recent (positive) change in aggregate US attitudes over the last several years (see the recent Pew Research report). It is unclear, however, how robust these changes are. Consequently, future research can leverage more recent panel data when possible.

Finally, our conclusions on the stability of immigration attitudes after correcting for measurement error are potentially challenged by questions concerning the source and meaning of random error (Zaller 1992; Feldman and Zaller 1992). Response instability may arise because individuals are influenced by the contextual factors at the time of the survey. Rather than having a stable opinion, individuals may have an underlying distribution of potential answers that they draw from when responding to survey questions. Thus, whatever is on the top of a respondent's mind at the time of the survey may influence where in their distribution they fall. Under this model, all respondents have some central tendency in their response, but also have variance. The difference between this model and measurement models is how this variance is treated. While measurement models treat this variation as random error, Feldman and Zaller (1992) argue that it is important variation that should not be discarded as simply measurement error. Nonetheless, we provide strong evidence that this random variation is in fact measurement error by showing that the stability of immigration attitudes increases when using multiple survey-items. Even more important, this variation is rather small, suggesting that whether we call this random component "measurement error" or "meaningful variation" does not drastically affect the general conclusion of stability.

Our results have important implications for a number of theoretical debates in the literature that so far has been concerned with cross-sectional rather than individual temporal variation in immigration attitudes. Previous research has often focused too narrowly on contemporary attitude changes, instead of the lasting effect of a particular shock. First, according to the top-down elite approach (e.g., Lenz 2012), politicians should be able to easily manipulate voters preferences on various issues including immigration. Our results indicate that, at least when it comes to immigration, individuals may not be "following the leader." Thus, our results run counter to many theories that emphasize the role elite position taking plays in influencing the attitudes (rather than just issue salience) among the mass public (Lenz 2009, 2012; Minozzi et al. 2015).

Two other preeminent debates in the field are the ones between economic and cultural, as

well between self-interest and sociotropic explanations of anti-immigration attitudes (Hain-mueller and Hopkins 2014). In as much as attitudes do not change across time, despite changing economic conditions and demographics, our results provide more support for explanations that emphasize the role of stable predispositions. Importantly, one potential reason why theories that emphasize changing economic conditions and demographics find empirical support is because of their emphasis on immediate treatment effects rather than enduring attitude shifts. Future research would benefit greatly by explicitly examining the temporal implications of tested theories, including those focusing on stable "economic" beliefs such as egalitarianism or risk aversion. Relatedly, our results also indicate that the recent rise of populist and radical parties cannot be explained by alluding to the change of likely stable immigration attitudes (also see Bonikowski 2017). As a result, future research on the topic can benefit from focusing on attitude salience and issue importance.

Our results also provide support to a broader literature that emphasizes the importance of early life experiences in the development of attitudes and beliefs. Consistent with the "persistence" and "impressionable years" models, we find evidence that younger individuals experience substantially more response variation in immigration attitudes. If immigration attitudes begin to crystallize when individuals are young, then it is advantageous for scholars to begin to characterize the conditions during this period that influence the development of these attitudes (e.g., see Laaker 2018). While our data indicates that young people are more susceptible to change, future research needs to more rigorously explore the specific period when these attitudes begin to develop.

Finally, the immigration literature is not alone in failing to consider the empirical reality and theoretical implications of attitude stability. Much of the literature on attitudes toward various foreign policy issues in international relations and comparative politics has ignored the extensive debates that have taken place in the broader public opinion literature. For example, while numerous studies analyze trade policy preferences, no study has examined

the potential that individuals have non-attitudes toward trade or the level of their stability.[30]

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[30]This analysis may not even be possible given the limited number of panels that consistently include questions concerning trade. To the best of our knowledge, the only panel that includes more than two waves of data is from Goldstein and Peters (2014).

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Appendix

Netherlands' Longitudinal Internet Studies for the Social Sciences (LISS) panel, 2008-2017.[31] The LISS panel is a nationally representative sample of Dutch individuals (16 years or older). It consists of 4,500 households and 7,000 individuals. There are nine waves each with at least 5,100 respondents. A total of 1,730 respondents answered the questions across all of the waves. The LISS panel asks six questions that elicit immigration attitudes each with five response categories.[32] The questions cover a variety of issues such as immigration levels and access to welfare benefits. See Table 1 for specific question wordings and response categories.

British Election Study (BES) panel, February 2014 - April 2017. The BES panel is a nationally representative survey that includes eight waves (18 years or older). Each wave consists of at least 25,000 respondents with 5,315 completing all eight waves. Three survey-items elicit immigration attitudes that concern the effect of immigration on the economy, culture, and the welfare system. While the panel is relatively short, it does encompass the 2015 refugee crisis and the 2016 referendum on EU membership, which caused substantial media coverage and public debate over immigration. Furthermore, it provides multiple waves each year with a large sample size, which allows for a more fine-grained analysis.

Swiss Household Panel (SHP), 1999-2011.[33] The SHP is an annual nationally representative survey of Swiss citizens (13 years or older) that began in 1999 with a sample of 5,074 households and 12,931 individuals. An additional 2,538 households and 6,569 individuals were added in 2004. There are twelve waves that contain a single question concerning the opportunities immigrants should be given compared to Swiss citizens. Each wave consists of

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[31]The survey started in late 2007 and early 2008. The respondents were not asked questions concerning immigration in 2015.

[32]The panel also asks three other questions related to immigration attitudes; however, we exclude these because they elicit second-order attitudes (how others perceive foreigners). The specific question wordings that are excluded are 1) "It is difficult for a foreigner to be accepted in the Netherlands while retaining his/her own culture." 2) "People of foreign origin or descent are not accepted in the Netherlands." 3) "Some sectors of the economy can only continue to function because people of foreign origin or descent work there."

[33]The question was not fielded in 2010.

at least 5,000 respondents with 1,455 answering all twelve waves.

Ireland National Election Study (INES), 2002-2007.[34] The INES panel was an annual nationally representative survey (18 years or older) consisting of five waves. The panel encompasses the 2002 and 2007 general elections in Ireland and the 2004 European Parliament elections. There were 2,680 respondents in the initial wave and at least 1,000 respondents in each subsequent wave. A total of 411 respondents answered all five waves. It includes one questions with seven response categories concerning immigration levels.

Norwegian Citizen Panel (NCP), October 2014 - March 2017. The NCP is an online nationally representative survey (18 years or older). We use six waves that include two questions about related to immigration.[35] The questions elicit attitudes concerning the general effect of immigrants on the country and the rights of refugees. Of the 1,673 respondents that answered both questions in October 2014, 632 completed the six waves used in this analysis.

The American Panel Survey (TAPS), July 2012 - July 2016. TAPS is a monthly online survey of a national probability sample of about 2,000 respondents in the United States (18 years or older). The panel asks one question concerning the general effect of immigration in eleven waves. Each wave consists of at least 1,000 respondents with 359 answering all eleven waves.

Goldstein panel, 2007-2012. The Goldstein panel was a six wave web survey administered by YouGov/Polimetrix. It began with 6,357 respondents and added new respondents each wave to deal with attrition. This panel is useful for several reasons. First, it randomizes whether the respondent receives a question on high-skill or low-skill immigration. Second, in addition to other immigration related questions, it also elicits attitudes toward immigrants from specific geographic areas. Third, the Goldstein panel, to the best of our knowledge, is the only panel survey that elicits trade attitudes. Since immigration and trade are often

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[34]The panel was not administered in 2005.

[35]The panel originally began in November 2013; however, our analysis starts in October 2014 for two reasons. First, the panel recruited additional respondents to address attrition issues, and second, one of the questions was not used until this wave.

viewed as policy substitutes and have similar theoretical predictions, it provides a useful comparison.

ANES, 1992-2012. The specific question wording used in the ANES is "Do you think the number of immigrants from foreign countries who are permitted to come to the United States to live should be [increased a lot, increased a little, left the same as it is now, decreased a little, or decreased a lot / decreased a lot, decreased a little, left the same as it is now, increased a little, or increased a lot]?"

ESS, 2002-2014. The ESS asks six questions. We create an index that is the average score across the six questions. The Cronbach's Alpha coefficient is 0.88, which suggests that the questions are measuring the same underlying concept. The question wordings are "1) To what extent do you think [country] should allow people of the same race or ethnic group as most [country] people to come and live here?" "2) To what extent do you think [country] should allow people of a different race or ethnic group from most [country] people?" "3) To what extent do you think [country] should allow people from the poorer countries outside Europe?" "4)"Would you say it is generally bad or good for [country]s economy that people come to live here from other countries?" "5) Would you say that [country]s cultural life is generally undermined/enriched by people coming to live here from other countries?" "6) Is [country] made a worse/better place to live by people coming to live here from other countries?" For questions 1-3, respondents could select from four options: allow many, allow some, allow a few, and allow none. For questions 4-6, there were originally 11 categories. We report the aggregate mean, but the results for the each country are similar. We include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, the Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, and the United Kingdom.