

The Diffusion of Support for Same-Sex Marriage in the US Senate

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ABSTRACT Advocates for same-sex marriage have had much to celebrate. The last few years have shown that state after state and senator after senator have declared their support for full marriage equality. Such momentum suggests that their goals will be realized sooner rather than later. In this article, we analyze when senators announce their support for same-sex marriage. Contrary to the popularly held belief that their decisions will quickly snowball into filibuster-proof numbers, we find that most of the easy successes have already been achieved. The difficulty of securing the last few votes may take much longer.

The march toward full marriage equality for same-sex couples seems to take a step every day. On consecutive days in May 2014, it did exactly that. A judge in Oregon struck down their same-sex marriage ban on May 19. A day later, another judge in Pennsylvania did the same thing to become the 19th state to permit same-sex marriage. Even Utah has handed out same-sex marriage certificates. Political commentators have stopped asking “if?” and have begun asking “when?”

As a sign of its supposed inevitability, Al Madrigal, of *The Daily Show with Jon Stewart*, did a segment on October 29, 2013, about which state—Alabama or Mississippi—would be the last to permit same-sex marriage.¹ The regularity of senators announcing their support for same-sex marriage reinforces this inevitability. Of those senators holding office in December 2013, 55 offered a full endorsement of same-sex marriage.² What *The Daily Show* segment and the senators’ announcements do not appreciate is that the states and senators most likely to support same-sex marriage already do. The remaining lists of senators and states suggest that the hard work for those in favor of full marriage equality has just begun.

In this article, we analyze the factors that propel senators to make public pronouncements in favor of same-sex marriage. In the first section, we discuss how public opinion has shifted on the issue. In the second section, we describe, model, and analyze the transitions that senators have made from opposing to supporting same-sex marriage.³ We find that the process underlying senators’ timing for announcing support for same-sex marriage is highly systematic. Senators’ ideology, their partisanship, the partisanship of their constituencies, and changes in their states’ same-sex marriage status all contribute to understanding when senators make their

announcements. In the final section, we assess the future prospects of support for same-sex marriage in the US Senate.

INCREASING SUPPORT FOR SAME-SEX MARRIAGE

In 1996, President Clinton signed the Defense of Marriage Act (DOMA) into law. Only 14% of senators and 16% of House members opposed the final passage of the bill. These percentages mirrored the American public’s skepticism of same-sex marriage. Most of the polls from the late 1990s showed that roughly 25% of the American public supported same-sex marriage, although slightly higher percentages approved when “civil unions” were used in the question wording rather than “marriage.”

As late as 2008, neither Hillary Clinton nor Barack Obama, in the thick of the contest for the Democratic nomination for president, would endorse same-sex marriage, although both professed their support for civil unions. The legal and societal distinctions between civil unions and same-sex marriage may be popular conversation in the parlors of American liberals, but they barely registered in legislative bodies in the United States because at that time a large part of the public had not yet endorsed even civil unions. Two years later, as president, Obama admitted that his position on the issue was “evolving.” He was not alone. Beginning in 2010, most public opinion polls showed that support for same-sex marriage was greater than opposition and within a couple of years, supporters constituted an outright majority rather than just a plurality of poll respondents.

During this transition, it has been unclear if members of Congress were following or leading the American public or other public officials. In 2011, the Obama administration announced that it would no longer defend DOMA in court, although it would continue to enforce the law. On May 8, 2012, amid a presidential campaign, vice president Joe Biden, who as a senator in 1996 supported DOMA, offered that he was “comfortable” with same-sex marriage. After fumbling the issue during the next news cycle, President Obama finally ratcheted up his support from civil unions to full marriage equality a day later.

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By the time that the Supreme Court struck down DOMA in 2013, the public's opinion had almost completely reversed from the time that the questions became a regular item tested in public opinion surveys. Most polls now show that support is firmly in front of opposition, as a growing proportion of Americans change their opinion on the issue.⁴ Furthermore, the best demographic predictor of support for same-sex marriage is age. Support among those younger than 30 regularly doubles the percentage of support from those older than 65. As younger Americans enter the voting booth and the halls of Congress and older Americans continue to shift their opinion, most political commentators assume that it is only a matter of time when same-sex couples throughout the nation will enjoy the same marriage benefits as heterosexual couples.

This changing nature of opinion on same-sex marriage in the Senate suggests that a public pronouncement on the issue tells only part of the story. As former senators, Barack Obama and Joe Biden both highlight that the key question is not the position that they take on the issue, but the evolution of their position over time.

THE RISE OF SUPPORT FOR SAME-SEX MARRIAGE AMONG US SENATORS

The trend in public opinion has become increasingly visible in the public announcements of same-sex marriage by elected officials, and among US senators in particular. As originally compiled by Dylan Matthews (2013) and reported on the *Washington Post's* "Wonkblog," 63 senators—55 of whom have served, or are currently serving, in the 113th Congress—switched their position from not supporting same-sex marriage to supporting it *while in office*.⁵ None have traveled on the other side of the road from support to opposition. This changing nature of opinion on same-sex marriage in the Senate suggests that a public pronouncement on the issue tells only part of the story. As former senators, Barack Obama and Joe Biden both highlight that the key question is not the position that they take on the issue, but the evolution of their position over time.

Beginning in 1996, position switches in favor of same-sex marriage (among senators currently or recently holding office) occur sporadically through 2006. Cumulative support, then, increases only slowly through the period. But two waves of additional switches in 2009 and 2011 contribute to rising levels of support overall (illustrated in figure 1). In 2013, 22 senators publicly announced changes in their support for same-sex marriage, pushing support to its highest level and beyond a simple majority. We suspect that the future trend in support for same-sex marriage will approximate an S-shaped "diffusion" curve seen in the adoption of an idea or new technology: starting slowly, increasing quickly for a short time, and then flattening as only laggards or nonadopters remain (Rogers 2003).

The Timing of Position Changes

We now explore the factors that explain when senators switch to supporting same-sex marriage. Because of the shifting nature of opinion on the issue, senators enjoy more freedom in sketching out a publicly stated position (Kingdon 1989; Maass 1983; Sinclair 1982). The timing of senators' public announcement from opposition to support is critical in two different arenas. First, as dictated by their role as representatives, senators act as both a mirror and

a leader of public opinion in their states. Not wanting to ever be too far out in front or behind their constituents on too many issues at any one time, senators are keen to calibrate their positions to maintain their relevance and their seat. Second, in their role as legislators, senators' announcements may reflect legislative strategy, behind-the-scenes pressure, or taking cues from peers (Boehmke 2006; Kingdon 1989). As pronouncements gather, attention to the issue may gain greater prominence inside and outside of Washington, DC, and contribute to "positive feedback" among those who are closely monitoring the political environment (Baumgartner et al. 2009; Jones and Baumgartner 2005).

Whereas congressional scholars regularly examine the cross-section of member opinion on many different roll-call votes,

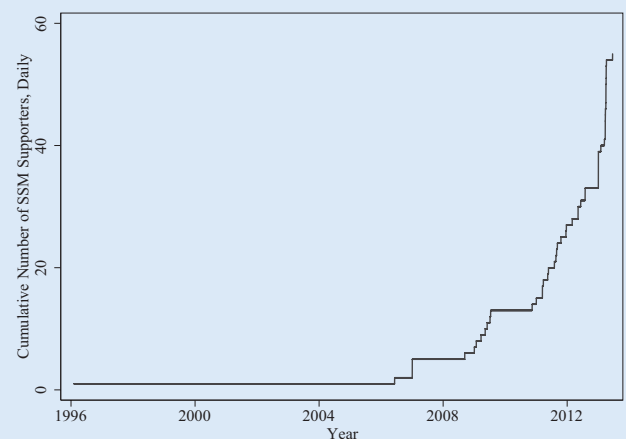
investigations into the timing of their announcements are sparser; but see Krehbiel's (1991) important work on signaling models, and Boehmke (2006), Box-Steffensmeier, Arnold, and Zorn (1997), and Huang and Theriault (2012) for articles that seriously examine the question of timing.

Modeling Changes in Support

Next, we examine information about the political characteristics of each senator to understand how various factors influence the timing of public announcements of support. Our approach builds on previous scholarly analysis that tests the role of religion (Pearson-Merkowitz and McTague 2013) or ideology (Maskett 2013) in contributing to same-sex marriage support among senators.

Following Huang and Theriault (2012), who examine pronouncements on immigration reform, we draw on the methods of survival/event history analysis to model the timing of senator changes

Figure 1
Senator Announcements in Favor of Same-sex Marriage (113th Congress)



in support for same-sex marriage. In our analysis, we estimate a Cox regression model with discrete, time-varying covariates that treats the time senators spend in office without supporting same-sex marriage as the object of interest. We consider the year in which senators enter Congress as the beginning of their “at-risk” periods, and the year in which they announce support (if they do) as the “failure” or “event” time. Senators who have not announced support are treated as “right-censored” because they do not announce support for same-sex marriage during the period of study.

Our model also involves the use of “discrete time” by aggregating switches yearly. We include variables that remain consistent (e.g.,

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party identification) as well as variables that vary over time (e.g., the states’ support for the Democratic presidential candidate). Compared to static approaches, our analysis includes meaningful over-time variation that would otherwise be ignored and enables us to examine the announcement of support as an event in time (Box-Steffensmeir and Jones 2004). Our eight independent variables measure various demographic, constituency-related, intra-institutional (e.g., within Congress) and inter-institutional (e.g., related to the Supreme Court or the presidency) factors. Two variables remain static across all years and are unique to each senator:

- Democrat*: coded 1 if senator is a Democrat, 0 otherwise.⁶
- 113th Ideal Point*: Like Maskett (2013), we use Simon Jackman’s (2013) ideal point estimates as a measure of ideology; higher scores indicate a more conservative leaning.

The remaining variables we include all vary over time. Some are specific to individual senators, while others are state-related or apply to all senators uniformly:

- Recent Democratic Presidential Vote Advantage*: the normalized presidential vote, which is the proportion of voters in a senator’s state that voted for the Democratic candidate in the most recent presidential election, relative to the national proportion voting for the Democratic candidate; every four years.⁷
- State Same-sex Marriage Change*: coded 1 in the year in which a senator’s state institutes support for same-sex marriage, and 0 otherwise.
- Number of Other Senator Switches in Support*: the number of other senators (including those not serving in the 113th Congress) who announced support each year.
- Obama Announcement*: coded 1 in 2012, the year in which President Obama publicly announced support for same-sex marriage, and 0 otherwise.
- Supreme Court Decisions*: coded 1 in 2013, the year in which the Supreme Court issued a ruling that extended federal benefits to same-sex couples (overturning the DOMA), and decided not to overturn a lower court ruling that removed California’s ban.
- Up for Re-election*: coded 1 in the two years preceding each senator’s next election, 0 otherwise.

Although, ideally, we would include state-level public opinion data to directly measure the influence of constituency support for same-sex marriage, time series data are not readily available.⁸

Results and Discussion

We present the estimation results from our model in table 1. We report each independent variable’s hazard ratio, which is interpreted relative to its distance from one (e.g., a hazard ratio of 1.20 indicates a 20%, or 0.20 times, higher risk of support).⁹ The two static variables, *Democrat* and *113th Ideal Point*, are both statistically significant factors contributing to the announcement of same-sex

marriage support. During their time in office, senators caucusing with the Democratic Party are 21.97 times more at risk for supporting same-sex marriage than Republicans. Unsurprisingly, ideology also has a statistically significant impact on the hazard of supporting same-sex marriage: a one-unit increase in ideal point—moving from moderately liberal to moderately conservative—decreases the hazard of a senator supporting same-sex marriage by 56% (hazard of 0.44).

Of the time-varying factors, three also have statistically significant hazard ratios that increase the risk of support. Unit rises in the

Table 1
Explaining the Timing of Same-Sex Marriage Support (113th Congress)

	HAZARD RATIO
Static	
Democrat	21.97** (28.66)
113th Ideal Point	0.44*** (0.12)
Time varying	
Recent Dem. Pres. Adv.	1.98*** (0.41)
State SSM Change	1.32*** (0.10)
Num. of Other Senator Switches	1.04*** (0.01)
Obama Announcement (2012)	1.44*** (0.15)
SC Decision (2013)	0.96 (0.07)
Up for Re-election	0.96 (0.05)
Observations	1,006
Senators	101
SSM Switches	55

Note: Reported values are hazard ratios; robust standard errors in parentheses; ***p < 0.01, **p < 0.05.

Recent Democratic Presidential Vote Advantage in a senator's home state (akin to representing a state when it leans in favor of the Democrats) increases the risk of senators supporting same-sex marriage by 98% (hazard of 1.98) in corresponding years. The timing of state support for same-sex marriage (e.g., legalizing same-sex marriage) also contributes to increases in the hazard of senators' support. Such a change corresponds to an increase of 32% in risk (hazard ratio of 1.32) for supporting same-sex marriage. Third, the intra-institutional measure we include, *Number of Other Senator Switches*, also contributes to a statistically significant

remaining Republican senators who do not yet support same-sex marriage. Susan Collins has a relative hazard of supporting same-sex marriage in the future of 0.78. She is followed closely by John McCain (0.61), Lindsey Graham (0.56), Jeff Flake (0.55), Bob Corker (0.55), and Kelly Ayotte (0.55). Of the seven Republican senators who supported the "Employment Non-discrimination Act (ENDA)" and do not yet support same-sex marriage, six are included within our list of the most at-risk senators in the party.

We also include those five senators with the lowest relative hazard of supporting same-sex marriage. With a value of 0.26, Ted Cruz

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increase in the risk of support for same-sex marriage. For each unit increase (e.g., a change in the support of one other senator in a year), the risk of nonsupporting senators increases by 4% (hazard ratio of 1.04).

Although we include variables for both President Obama's public announcement in 2012 and the Supreme Court rulings in 2013 to account for inter-institutional influences, only the president's announcement appears to affect the timing of public support by senators. A hazard ratio of 1.44 indicates a 44% increase in the risk of supporting same-sex marriage in the year Obama announced his public support. Finally, our measure of electoral timing—*Up for Reelection*—does not have a statistically meaningful impact on the timing of same-sex marriage support.

FORECASTING FUTURE SUPPORT

Much like Nate Silver did for Al Madrigal on *The Daily Show*, we can use our model to examine the list of senators who have not yet publicly supported same-sex marriage and determine the "relative hazard" of each senator's potential support. We reveal who among those senators who have not yet announced their support are most at risk to switch to supporting marriage equality based on their particular political situations. As reported in table 2, we draw on the estimation results of our model to generate relative hazards for each senator.

We include the 15 senators with the highest relative hazards who have not yet supported same-sex marriage. Of these, Mary Landrieu has the highest risk of announcing a change in support. Her public pronouncements suggest that she, personally, supports same-sex marriage, but that she feels bound to represent her constituents who are still majority opposed (Amira 2013). The model predicts her relative hazard of supporting it as 27.83, which is calculated in comparison to the "average" senator in the sample. These predicted hazards measure risk throughout our period of study and are in reference to a value of one—that is, Landrieu is nearly 28 times more likely than the average senator to change her support. Two other senators have similarly high relative hazards, and they are the only remaining Democrats who have not announced their support: Greg Pryor (23.50) and Joe Manchin (21.18).

Although with significantly lower relative hazard values than the three Democrats, our predictions also allow us to rank those

is the least at risk, followed immediately by Mike Lee (0.29) and Jim Risch (0.29). This is not surprising because each senator's opposition to same-sex marriage is well known. In comparison, three other Republican senators with varied relative hazards publicly support same-sex marriage and recently voted in favor of ENDA:

Table 2

Relative Hazards of Same-sex Marriage Support (113th Congress)

A. HIGHEST RISK

SENATOR	RELATIVE HAZARD	VOTED FOR ENDA
Landrieu (D)	27.83	Yes
Pryor (D)	23.50	Yes
Manchin (D)	21.18	Yes
Collins (R)	0.77	Yes
McCain (R)	0.61	Yes
Graham (R)	0.56	No
Flake (R)	0.55	Yes
Corker (R)	0.55	No
Ayotte (R)	0.55	Yes
Alexander (R)	0.53	No
Chiesa (R)	0.53	-
Hatch (R)	0.50	Yes
Wicker (R)	0.50	No
Hoeven (R)	0.50	No
Isakson (R)	0.49	No

B. LOWEST RISK

SENATOR	RELATIVE HAZARD	VOTED FOR ENDA
Scott (R)	0.32	No
Paul (R)	0.31	No
Risch (R)	0.29	No
Lee (R)	0.29	No
Cruz (R)	0.26	No

Lisa Murkowski (0.77), Mark Kirk (0.60), and Rob Portman (0.48). If we had systematically coded which senators achieved their election by write-in after being denied their party's nomination (Murkowski) or which senators had gay or lesbian children (Portman), their relative hazard values would be higher.

CONCLUSION

The process underlying senators switching from opposing to supporting same-sex marriage appears quite systematic. The variables that we think matter—ideology, partisanship, and constituency pressures—do matter. Such systematic results offer support for our prediction of likely future switches in each senator's relative hazard.

Contrary to the news reports suggesting that same-sex marriage will become the law of the land sooner rather than later, our analysis shows that the fight for increased support in the US Senate is far from over. While high relative hazards for a few senators suggest that the number of supporters could climb to 58, the fight for two additional senators is likely to be much harder. With their relative hazards of support so much lower, proponents' only hope may be the replacement of opponents with supporters while maintaining their current crop of supporters. The political landscape for the 2014 elections suggests that that may be a tough row to hoe.

Advocates for same-sex marriage have celebrated the triumphs of the last few months. Pundits have assured them that the time is near when the political debate will end in full marriage equality throughout the United States. Our analysis suggests a more measured prediction. Rather than the recent successes providing momentum for full victory, we find that the lowest hanging fruit have already been picked. The campaign for full marriage equality may take another season or two before same-sex marriage advocates have enough support to declare final victory.

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NOTES

1. Archived at <http://www.thedailyshow.com/watch/tue-october-29-2013/last-gay-standing>.
2. According to data compiled by Matthews (2013).
3. We acknowledge that the US Senate is not the only institutional venue where the politics of same-sex marriage are important, but we focus on the Senate because this provides a high degree of dynamic leverage that would not necessarily be available in other settings.
4. See a July 2013 Gallup poll (<http://www.gallup.com/poll/163730/back-law-legalize-gay-marriage-states.aspx>) and a March 2013 Pew Research report (<http://www.people-press.org/2013/03/20/growing-support-for-gay-marriage-changed-minds-and-changing-demographics/>) as examples.
5. We do not include Markey (D-MA), Schatz (D-HI), or Booker (D-NJ) because they supported same-sex marriage before holding office. The announcement of

their support prior to holding office (what we consider their "at-risk" period) would cause them to drop from analysis. We include Kerry (D-MA), Cowan (D-MA), Chiesa (R-NJ), Lautenberg (D-NJ), and Baucus (D-MT) who all held office during the 113th Congress. Our empirical analysis is current as of December 31, 2013, and includes state changes through New Mexico.

6. Includes Sanders (I) and King (I).
7. For this variable and for *Recent Vote Margin*, observations between election years repeat values. This introduces serial correlation, but we use robust standard errors to account for this common problem (see Box-Steffensmeier and Jones 2004, 115).
8. State-level opinion data exist only sporadically and do not cover the full period of our analysis. We include *Recent Democratic Presidential Vote Advantage* as a "next best" measure of constituency pressure.
9. A hazard rate is simply stated as the risk a unit (e.g., a US senator) has of incurring a "failure" (e.g., supporting same-sex marriage) during a period of time, given that it has "survived" a length of time up to that point (see Box-Steffensmeier and Jones 2004, 14–15). We report hazard ratios that represent comparisons of the hazard rates associated with each independent variable. For categorical variables (e.g., partisanship) the ratio compares the hazard rates of the two groups (e.g., Democrats versus non-Democrats). For continuous variables, the ratio compares the rates across unit increases.

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