PRIDE & POLITICS:

PUBLIC OPINION AND POLITICAL BEHAVIOR AMONG SEXUAL MINORITIES

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Pride & Politics: 
Public Opinion and Political Behavior Among Sexual Minorities

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Abstract

In recent years, political scientists have learned a great deal about the sources of mass public attitudes towards sexual minorities, but we still know very little about the public opinions and behaviors of sexual minorities themselves. Though the overall estimated percentage of the population that identifies as gay, lesbian, bisexual, or transgender is small, the ongoing battles over the civil rights of sexual minorities continue to hold significant political salience, making study of this population's political attitudes and behaviors both interesting and timely.

Furthermore, despite some significant gains in recent years, disapproval of sexual minorities remains high in many parts of the United States, and for same-sex-attracted individuals in these places, concealment or disclosure of their sexual minority status may have both psychological and political consequences. Study of the complex relationship between concealable minority identity and individual political attitudes and behavior among sexual minorities can also improve our understanding of the political psychology of members of other stigmatized groups, such as atheists, welfare-recipients, immigrants, and, perhaps paradoxically, conservative religionists.

In this three-paper dissertation project, I sought new insights into these issues using data on sexual minorities from the General Social Survey. In Part I, I examined whether public opinion gender gaps known to exist among the general population also are found among sexual minorities, and explored whether different gender norms might diminish any such gaps between men and women who identify as bisexual, gay, or lesbian. In Part II, I investigated whether
discrepancies between sexual behavior and sexual identity can influence attitudes towards same-sex marriage among same-sex-attracted individuals. Finally, in Part III, I considered how political ideology and religious belief might affect the decisions of same-sex-attracted individuals as to whether and how to disclose their sexual minority status, that is, whether or not to "come out of the closet."
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*This dissertation is dedicated to Chris Curtis, my partner in life and love,*

*without whom it simply would never have been written.*
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PREFACE

The dramatic pace at which the civil rights of sexual minorities have advanced in the last fifteen years has been matched by the increased public visibility of gay, lesbian, and bisexual people in American society. Scholars have noted a significant increase in the proportion of Americans who say they know someone who is homosexual (Wilcox and Wolpert 2000; Wilcox and Norrander 2002) and when a recent Gallup report found that young people were three times as likely as seniors to identify as gay, lesbian, bisexual, or transgender, the authors suggested that part of the reason for the difference could be that young people with same-sex attraction are more willing to "come out" since they and their peers are much less likely to view sexual minority status as a stigma (Gallup 2012).

In recent years, political scientists have learned a great deal about the source of attitudes towards sexual minorities in the broad population, but we still know very little about the political attitudes and behaviors of sexual minorities themselves. Though the overall estimated percentage of the population that identifies as gay, lesbian, bisexual, or transgender is small, 3.4% of the population according to the same Gallup report (2012), their public visibility and significant political salience, due to the ongoing battles over equal civil rights, make study of this population’s political attitudes and behaviors both interesting and important.

Furthermore, despite the gains nationally, disapproval of sexual minorities remains high in many parts of the United States, and for same-sex-attracted individuals in these places, concealment or disclosure of their sexual minority status may have psychological implications that can produce political consequences. Understanding how concealment of a stigmatized status might influence individual political attitudes and behaviors could be useful for understanding the
political psychology of members of other stigmatized groups, such as atheists, welfare-recipients, immigrants, or, perhaps paradoxically, conservative religionists.

Finally, if, as seems increasingly possible, sexual minorities come to be accepted by society and if their collective political goals are eventually fulfilled, then study of this group's continuing political and social evolution may provide useful insights into the waxing and waning of politicized group consciousness among members of other marginalized or stigmatized groups; but such a research agenda can only be pursued if a baseline of the factors that influence the political attitudes and behaviors of sexual minorities is first established.

Until recently, however, large-sample quantitative study of sexual minorities has been significantly hindered by the small relative size of the population and the lack of sexual orientation measures in the major political science surveys; but this dearth of useable data is finally being addressed. The General Social Survey, the American National Election Studies, and the National Survey of Family Growth now routinely include sexual orientation items; and Gallup recently completed the largest single study of sexual minority distribution ever conducted in the U.S. (2012). This new data is ripe for study, a project that I was eager to undertake for the reasons I’ve described.

In this three-paper dissertation, I sought to glean new insights into the political opinions and behavior of sexual minorities from this new wave of large-sample sexual minority data. In Part I, I examined whether public opinion gender gaps known to exist among the general population also are found among sexual minorities, and explored whether different gender norms might diminish any such gaps between men and women who identify as bisexual, gay, or lesbian. In Part II, I investigated whether discrepancies between sexual behavior and sexual identity can influence attitudes towards same-sex marriage among same-sex-attracted individuals. Finally, in Part III, I
considered how political ideology and religious belief might affect the decisions of same-sex-attracted individuals as to whether and how to disclose their sexual minority status, that is, whether or not to "come out of the closet."

The study of the political attitudes and behaviors of sexual minorities is still in its infancy. Though some people have called efforts to extend equal rights to sexual minorities the last great civil rights battle, it seems to me that the quest for equality in a pluralized society never really ends as long as social categories, such as race, ethnicity, religion, and sexual orientation, still influence and are influenced by politics. Though this project has only scratched the surface of the subject, it is my hope that my findings will spur other researchers to further study of this fascinating and important topic.
PART I:

GENDER GAPS IN PUBLIC OPINION AMONG SEXUAL MINORITIES

Abstract

Gender gaps in public opinion have been documented repeatedly among the general population on certain policy topics. Yet there has been little study of gender gaps among sexual minorities. Gender-correlated social norms and political ideology are the explanations offered most often to explain these gender gaps. Because there is reason to believe that norms and ideology among gay, lesbian, and bisexual people may be more similar across genders, it is reasonable to suspect that the common gender gaps may disappear within this subgroup. Using data from the 2008-2012 General Social Survey, I used bivariate and multiple regression analysis to study gender gaps in ideology, party identification, attitudes towards national priorities, and opinions on a number of social policies. I found that many of the gender gaps that exist in the straight-identifying population disappear or reverse direction among sexual minorities. The evidence and analysis largely supports a "political mobilization" theory of gender gaps.
Introduction and Theory

In this study, I sought to examine the differences in public opinion between sexual minority men and women. In the mass public, the phenomenon of “gender gaps” in public opinion, which are disproportionate, aggregate differences in the political attitudes of men and women, is one of the most thoroughly described findings in public opinion research. Though political scientists were slow to recognize the existence of such gender gaps (Kaufmann and Petrocik 1999), close study of the subject exploded in the 1980s, and once the discipline's attention was focused on it, persistent differences in the political opinions of men and women were found in extant survey data dating to the 1960s and even earlier (Erskine 1971; Smith 1984; Schneider 1984; Shapiro and Mahajan 1986).

A number of these gender gaps--attitudes about war, foreign policy, the use of force, capital punishment, gun control, and some social welfare policies--have proven remarkably durable among the general population over time (Rapoport 1982; Fite et al. 1990; Conover and Sapiro 1993; Kaufmann and Petrocik 1999; Sapiro 2001; Sapiro 2003). There are many political opinions, on the other hand, which show little evidence of gender differences, including attitudes towards abortion and women's rights (Shapiro and Mahajan 1986). Still other gender gaps have waxed and waned due to generational effects, changes in issue salience, and the influence of specific world events (Rapoport 1982; Gilens 1988; Kaufmann and Petrocik 1999). Since changes in public opinion may lead to changes in public policy (Page and Shapiro 1983), political scientists have been very interested in learning more about these gender gaps in the mass public; but relatively few studies have examined gender gaps among minority groups, including among men and women who identify as bisexual, lesbian or gay.¹

¹ For the few notable early exceptions, see Hertzog (1996), Rust (1995), and Whisman (1996).
Gender gaps have also been documented in political ideology and party identification. Among the general public, gender gaps in these areas have grown in the last three decades, with women more likely than men to vote, more likely to identify as liberals, more likely to identify as Democrats, and more likely to prefer Democrats when they vote (Gilens 1988; Klein 1985; Kaufmann and Petrocik 1999; Box-Steffensmeier et al. 2004; Kanthak and Norrander 2004; Norrander and Wilcox 2008; Burns and Kinder 2012). ² I could find only two large-sample studies that have examined ideological and partisanship gender gaps among sexual minorities, neither of which used representative samples. Both found evidence that, while both LGB men and women were more liberal and Democrat than the straight population, LGB women were somewhat more likely than men to hold liberal views (Schaffner and Senic 2006; Lewis et al. 2011).

Though we do not know much about gender gaps among sexual minorities, a number of "sexual identity gaps" have been documented. Previous studies have found that LGB men and women are more likely than straight men and women to hold liberal political views, to identify as Democrats, and to support policies that favor sexual minorities, such as legal recognition of same-sex relationships, allowing LGB men and women to serve openly in the military, and protection against employment discrimination on the basis of sexuality (Hertzog 1996; Sherrill 1996; Egan and Sherrill 2005; Schaffner and Senic 2006; Lewis et al. 2011; Egan 2012). Sexual minorities are by no means homogenous in ideology, partisanship or public opinion, but these sexual identity gaps may lead us to expect that gender gaps will disappear within this subgroup.

² Recently, the effect of the electoral gender gap was readily apparent in the 2012 presidential election when, according to CNN exit polls, 55% of women voted for Barack Obama while 52% of men voted for Mitt Romney. Since women are a larger proportion of the population, the total gender gap was approximately 18%, which is among the largest gender gaps in the modern era. (Abdullah, Halimah. “How Women Ruled the 2012 Election and Where the GOP Went Wrong.” CNN.com, November 8, 2012.)
In other words, sexual identity gaps may confound any influence of gender if they are not controlled for when examining the nature of gender gaps within the LGB population.  

In this study then, I attempted to determine whether gender gaps in public opinion and political participation that have been found among the general population also exist among sexual minorities. Given the relatively small proportion of the population that identifies as gay, lesbian, or bisexual, and the fact that sexual identity has only been routinely measured by the major large-sample political surveys in the last few years, it has only recently become possible to begin to answer this question with any confidence. The General Social Survey (GSS) began to measure sexual identity in 2008, and three biennial waves of GSS data are now available for study.

Describing gender gaps among sexual minorities is an interesting research endeavor in part for its potential to improve our understanding of the political influence of gender in sexual and other minority communities; but that is not the only contribution of this study. There is an extensive literature on the influence that socially-constructed identities such as gender and sexual identity can have on political opinion and behavior, however, we know much less about how people with multiple, politically influential, social identities manage and reconcile those identities in the political context, especially when those identities do not always lead to compatible political ideologies or purposes (among the few such studies, see Gay and Tate 1998, and Thompson

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3 For example, if differences in political ideology among straight men and women are responsible for creating gender gaps in opinion, then the higher average levels of liberalism among both LGB men and women may obscure any partial effect of gender on LGB public opinion.

4 In his 1999 review of what he called the “first wave” of empirical research concerning sexual minorities, Tim Cook criticized the absence of sexual identity measures in the major political science surveys and noted that “there is now no reason such items could not be included, which would considerably improve our understanding of a phenomenon that is increasingly visible and discussed” (690), yet it was nearly a decade before sexual identity was measured by the General Social Survey and American National Election Studies.

5 In the gender gap literature, the American National Election Studies (ANES) have also been an invaluable data source. Though the ANES also collected sexual identity in the 2008 and 2012 panel surveys, only the 2008 data, with only 93 LGB respondents, was available as of May 2013. Once 2012 and later data are available from ANES, replication and extension of the present results using that data source will be undertaken.
1999). Studying gender gaps among sexual minorities may shed light on such intersections, and could explain, for example, why gay men appear to be much more ambivalent about same-sex marriage than are lesbian women (see Part II of this project for more on this particular gender gap). It may be, perhaps, that their gender identity and their sexual identity do not influence them towards the same opinion, but instead are conflicted by the "cross-cutting" issue of marriage.

I also sought in this study to shed light on an aspect of gender gaps that remains unresolved, namely, the causes of these gaps in public opinion. Though the existence and extent of gender gaps in the general public's political attitudes and behavior is well documented and relatively uncontroversial, there is less agreement regarding the explanations that have been advanced to account for them. In the next section, I will review the theoretical explanations, but outline them here briefly. Early theories that tended to attribute different political attitudes to innate biological differences between men and women have largely been rejected; and the impact of gender differences in the willingness to answer "don't know" on survey items appears to have declined with time (Rapoport 1982).

In recent years, theories to explain gender gaps have asserted that men and women have different personal values and ideologies, which result from different socialization norms concerning gender stereotypes and from the different life experiences of men and women. Sexual minorities may plausibly hold different views about the nature of gender, a fact that could produce different gender gaps if gender stereotypes and socialization are the real cause of gender gaps in the straight-identifying public. On the other hand, it might be the case that ongoing political realignment is responsible for any gender gaps among sexual minorities, and that socialization exerts relatively little influence after controlling for ideology and partisanship. In
either case, sexual minorities may offer a unique test case for studying the dual influence of

gender norms and ideology on gender gaps.

Explaining Gender Gaps in Public Opinion

A number of different theories have been offered to explain the recurring gender differences
in public opinion in the general population, not all of them mutually exclusive. I would suggest
that most of the explanations fall into three general domains, which could be characterized as
gender-related differences in: 1) concern for the disadvantaged 2) political mobilization, or 3)
gender socialization. Each of these explanations suggests particular implications about whether
and how gender gaps might manifest among sexual minorities.

Concern for the Disadvantaged. The first explanation for the gender gap asserts that men and
women hold different attitudes as a result of their unequal social position. Since women are
economically disadvantaged compared to men, they may be more likely to support redistributive
policies and policies that benefit the poor, such as welfare, health assistance, and education,
while the superordinate status of men might lead them to disapprove of such policies while
favoring policies that reinforce or support the status quo. Economic matters have been shown to
play a role in vote choice during presidential elections (Fiorina 1981; Rosenstone 1983; Markus
1988). Chaney et al. (1998) showed that gender differences in evaluations of the economy
explained a significant proportion of the gender gap in vote choice from 1980 to 1992, noting
that women were consistently more likely to give the state of the economy a negative evaluation.

Furthermore, while women have been found to view the state of the economy with less
optimism than men (Chaney et al. 1998; Kaufman and Petrocik 1999), they have also been shown
to weight economic considerations differently when deciding how to vote, giving more weight to
the overall condition of the economy while men are more likely to give weight to their personal
financial condition (Welch and Hibbing 1992). This suggests that the source of the gender gap is not merely economic self-interest, but arises from men and women having different experiences with and perceptions of social class differences. It has been suggested that the most disadvantaged individuals, or those who are members of more than one low-status social category, may experience their disadvantage more intensely and more frequently, and as a result, they may develop a politicized feeling of affinity with other disadvantaged individuals or a "group consciousness," which causes them to adopt more liberal attitudes on social welfare policies (Miller et al. 1981; Ransford and Miller 1983). In one of the few studies of multiply-disadvantaged populations, Gay and Tate (1998) found that the political attitudes of black women were strongly influenced by the intersection of both their race and their gender, but also found that the effects of both categories were not always mutually reinforcing.

This theory would suggest that the relative disadvantage of sexual minorities will be likely to produce a sexual identity gap on social welfare issues, but also that if LGB women are more disadvantaged than LGB men, then they will be even more likely to support spending on social programs and policies to support the disadvantaged.

Political Mobilization. A second theory concerning the gender gap attributes it to the divergent targeting of men and women by political candidates and the political parties, who have increasingly focused on issues on which the attitudes of men and women differ. Differences in men's and women's attitudes were increasingly exploited by political elites beginning with the 1980 presidential election (though Kaufman and Petrocik, 1999, have shown that gender gaps in party identification and vote choice emerged at least as early 1964). Gilens (1988), analyzing data from the 1982 National Election Study, showed that President Ronald Reagan's higher job approval among men was related to Reagan's conservative positions favoring military and
defense spending and opposing social welfare spending. Because both of these issues were highly salient to men and women, and since men were also more conservative on these issues, Reagan was viewed more positively by men than by women. Gilens also found that differences in feminist issues, environmental policies, and Reagan's personal qualities accounted for very little of this gender gap, or even reduced it.

In studying data from the 1992 and 1996 National Election Studies, Kaufman and Petrocik (1999) found that the gender difference in attitudes was continuing to contribute to the growing divide among men and women in both party identification and vote choice. Though they found that the gap between men and women on defense and foreign policy had declined in size and influence since the Reagan era, gender differences in attitudes towards social welfare spending and some social issues, particularly the rights of gay and lesbian Americans, were highly significant in explaining the movement of men towards the Republican party. They also showed, however, that men and women did not always assign equal importance to different issues, and that the relationship between issue attitudes and gender gaps in partisanship was moderated by the difference in the salience of the particular issue to men and women. Finally, they showed that increasing identification with the Republican party by men beginning in the 1960s was the primary cause of the gender gap, and noted that women’s' preference for the Democratic party had declined very little between 1952 and 1996, while the proportion of men who identified as Democrats had fallen substantially over the same period.

In general then, although relatively few Americans appear to evaluate political issues against specific ideologies or belief systems (Converse 1964), many do adopt the partisan and ideological labels that they associate with their preferred issue attitudes (Nie et al. 1979; Conover and Feldman 1981). As the messages and information about issues from political elites have become
clearer and more sharply delineated along party lines, men and women have been increasingly
drawn to different partisan identities (Zaller 1992; Abramowitz and Saunders 1998;
Hetherington 2001). This phenomenon may also be at work among sexual minorities, potentially
influencing both sexual identity gaps and gender gaps. The "political mobilization" explanation
would predict that if the attitudes of sexual minorities on politically salient issues diverge from
those of the straight population, and if those divisions have been effectively targeted by political
elites, then sexual identity gaps would emerge. Since the Democratic party and the Republican
party have tended to take clear and strongly divided positions on issues that impact sexual
minorities, it is not surprising that LGB men and women have been found to be much more likely
to identify as Democrats, to vote for Democratic candidates, and to say they hold liberal views
(Hertzog 1996; Sherrill 1996; Egan and Sherrill 2005; Schaffner and Senic 2006; Lewis et al.
2011; Egan 2012).

Furthermore, if the policy attitudes of LGB women differ from those of LGB men, if they do
not give equal salience to difference issues, or if they have not been targeted equally by the
messages and information of political elites, then the political mobilization theory would predict
that gender gaps might still be found among LGB men and women, but their direction and
magnitude would be likely to vary depending upon the attitude, salience, and targeting.

**Gender Socialization.** A number of theories proposed to explain gender gaps argue that men and
women are socialized with different gender roles and expectations beginning very early in life,
and that differences in these learned gender roles cause men and women to develop different
political attitudes, either because their respective gender roles encourage them to pursue
divergent roles and life experiences or because they adopt different, gender-related, moral
systems (see, for example, Gilligan 1977; Chodorow 1978; Shapiro and Mahajan 1986; Ruddick 1980; Sapiro 1983).

Gilligan (1977) argued that women are biologically and psychologically disposed, as a consequence of their motherhood or potential motherhood, towards developing moral systems that preference an "ethic of care," which differs from the normative male morality or "ethic of justice." Gilligan suggested that the "ethic of care" preferences nonviolence, self-sacrifice, interpersonal connection, and active caring for others, while the "ethic of justice" makes moral judgments on the basis of individual rights and the maintenance of social contracts. These divergent moral systems may lead men and women to hold different political attitudes, particularly with regards to conflict, violence, war, and social welfare; and, in fact, public opinion gender gaps in these political domains have been among the most resilient findings in this literature (Smith 1984; Shapiro and Mahajan 1986; Fite et al. 1990; Conover and Sapiro 1993; Miller 1998).  

Of course, if motherhood alone were responsible for differences in political attitudes, then there would be no reason to expect gender gaps to go away among sexual minorities; but a number of later variations on this basic theory suggest otherwise. Tronto (1987), in her extension of Gilligan's work, proposed that the causes of "ethic of care" morality were not only psychological, but also sociological, and resulted from the subordinate status of women in society. Tronto suggested that their social disadvantage and relative lack of power may lead women to value interconnectedness, nonviolence, and caring for others who are also vulnerable or disadvantaged. Tronto also argued that these sociological factors might lead minority group members, regardless of their sex, to develop an "ethic of care." If so, then it is plausible that LGB  

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6 Ruddick (1980) has similarly argued that motherhood inclines women towards peacekeeping and reconciliation.
men and women might tend to hold similar values based on the "ethic of care" and, as a result, their political attitudes on related issues might tend to be more similar than those of straight men and women.

Tronto was only able to offer circumstantial evidence for her argument, but subsequent research appears to support the view that moral systems that appear to be gendered are not limited by sex alone. Conover (1988) proposed that while gender socialization may indeed predispose men and women to hold different values, the political influence of those values would be moderated by the presence (or absence) of a feminist identity or "consciousness." Her analysis of National Election Study data found only small differences between men and women who did not identify as feminist in "basic values," such as moral traditionalism and sympathy for the disadvantaged, and no difference in their "political values," such as egalitarianism and individualism. She also found that women with a strong feminist identity, on the other hand, were "more liberal, less racist, more egalitarian, less traditional morally and with regard to sex roles, and more sympathetic to the disadvantaged" (1000). Conover argued that this showed that some but not all women, namely those with a feminist identity, did indeed have distinctive basic and political values, which would, in mutual interaction with their identities, produce policy preferences that differed from those held by most men. In response to Conover's study, Cook and Wilcox (1991) also found little difference in the basic and political values of men and women surveyed for the National Election Study (NES), but they showed that feminist consciousness was a strong predictor of both liberal values and liberal policy preferences for both men and women. They argued that this showed that Conover's feminist identity was not limited solely to women, and was perhaps better thought of as a manifestation of a liberal, pro-egalitarian perspective. Subsequently, Conover and Sapiro (1993) examined a later wave of NES data in
order to test both of these explanations and found evidence that both the unique characteristics and experience of women and a liberal feminist consciousness experienced by both men and women were influential in shaping attitudes about war and militarism.

How might these factors influence gender gaps among sexual minorities? While feminism has been an important intellectual and mobilizing force among lesbian and bisexual women (see Taylor and Whittier 1992 for a review), it has played a less overt role among gay and bisexual men. However, if both LGB men and women hold similar liberal values, and if liberalism is the source of the feminist consciousness, then there is still reason to believe that the opinions of LGB men and women are likely to converge.

**Summary of Theories.** These three sets of theories imply somewhat different expectations for the present study. If gender differences in social and economic status among the general population lead women to prefer policy alternatives that provide care for the disadvantaged, then I expect to find that LGB men and women will similarly prefer such policies, but if LGB women are more disadvantaged, this theory implies that they will be more supportive of social welfare policies than will LGB men. If political mobilization is responsible for gender gaps, then I would expect to find that the political targeting of LGB men and women by the Democratic party (and their rejection by the Republican party) will have led both LGB men and women to be more Democrat and to prefer more liberal policy options than the straight population. However, since LGB men and women may not have been equally targeted on all issues (depending on whether the appeals were gender-specific) or equally receptive (depending on the particular issue salience) to these efforts, it is plausible that different gender gaps on specific issues may be found. Finally, if gender socialization is the primary cause of gender gaps, then the minority status of LGB men and women may have led them to adopt similar "ethic of care" or "feminist consciousness" attitudes,
in which case, gender gaps that are found among the straight population would likely shrink or
disappear altogether among LGB women and men.

**Data and Variables**

The 2008, 2010, and 2012 waves of the General Social Survey (GSS)\(^7\) provided the data for
this study. Though the General Social survey has provided much useful data for previous studies
in the gender gap literature, it was only in 2008 that the GSS began to collect sexual identity.
Responses from all three waves were pooled to increase statistical power, and all estimates that
follow were calculated using the GSS-supplied non-response sample weights.\(^8\) The sample
included 5,085 respondents who identified as heterosexual or "straight" and 188 respondents
who identified as lesbian, gay, or bisexual (LGB). Based upon this sample, the estimated LGB-
identifying proportion of the adult American population was 3.0% at this time.\(^9\)

**Dependent Variables and Analytical Plan**

In order to assess the existence and extent of gender gaps and sexual identity gaps in public
opinion and political behavior, I analyzed three sets of related dependent variables. First, I
examined ideology and partisanship using bivariate analysis. Next, using factor analysis and logit
multiple regression, I examined opinions on national spending priorities, and last, I again used
multiple regression to analyze opinions on a number of social policies, many of which have
previously revealed gender and sexual identity gaps in the broad population. I will describe each

\(^7\) Smith, Tom W., Peter Marsden, Michael Hout, and Jibum Kim. 2013. General Social Surveys, 2008-2012
[machine-readable data file]. Principal Investigator, Tom W. Smith; Co-Principal Investigator, Peter V. Marsden;
Co-Principal Investigator, Michael Hout; Sponsored by National Science Foundation. --NORC ed.-- Chicago:
National Opinion Research Center [producer]; Storrs, CT: The Roper Center for Public Opinion Research,
University of Connecticut [distributor]. 1 data file (57,061 logical records) + 1 codebook (3,432 p.). — (National
Data Program for the Social Sciences, No. 21).

\(^8\) When analyzing subpopulations of interest in weighted survey data, West et al. (2008) found that conditioning on
the subpopulation produced inaccurate standard error estimates; they recommended using software approaches that
take into account the full range of variation in the sample data, such as Stata’s “subpopulation” option. This is the
approach I employed throughout this study.

\(^9\) 95% confidence interval: 2.5 to 3.5%
set of dependent variables in more detail and present the analysis of each in the Methods and Results section.

Before proceeding to the analyses, however, I will first describe and summarize the independent and control variables, and describe the bivariate gender and sexual identity gaps I found in those variables. This preliminary analysis of the demographic and attitudinal characteristics of the subpopulations of interest should provide a useful foundation for the multiple regression analyses that follow.

**Operationalizing the Independent and Control Variables**

The primary independent variables were sex, male or female, and sexual identity, which the GSS measures by asking, "Which of the following best describes you? 1) Gay, lesbian, or homosexual, 2) Bisexual, 3) Heterosexual or straight." In the absence of a theoretical justification for expecting gender gaps to operate differently among bisexual men and women compared to gay men and lesbian women, and to increase the statistical power of the analyses, I operationalized sexual identity dichotomously, as either "straight" or "lesbian, gay, or bisexual (LGB)."

In addition to the independent variables of interest, I also operationalized control variables for age, years of education, family income and individual income. Since sexual minority couples may face greater legal and regulatory challenges and risks in pooling their income for tax or accounting purposes, the measure of "family income" could plausibly be at risk of greater measurement error for bisexual, gay, and lesbian men and women, but there was much more missing data for the individual income measure in this data. Therefore, while I operationalized and examined both income measures in the bivariate analysis, I used only family income (logged) in the regression analyses.
Also coded were indicators for black and other race, Hispanic or Latino ethnicity, and Catholic, Jewish, or no religious denomination (the baseline category was white, non-Hispanic respondents with Protestant or another non-Catholic/non-Jewish religious denomination).

In addition to the demographic controls, I also created additional variables for ideology and party identification. Ideology was coded with indicators corresponding to "liberal" and "conservative" with "moderate" as the baseline. Party identification was coded with indicators for "Democrat or Strong Democrat" and "Republican or Strong Republican," with "Independent" as the baseline (note that the so-called "leaners," that is, individuals who first identified as independents, but who expressed a preference for one party or the other subsequently, are included in the baseline category.)

**Describing the Independent and Control Variables**

In Table 1, the demographic and other control variables (as well as measures of gender stereotypes) are summarized for straight men and women and LGB men and women. The Table also shows the differences by gender and sexual identity, with the results of bivariate difference tests.\(^\text{10}\)

**Age, Income, and Education.** As can be seen, LGB men and women were, on average, younger than their straight counterparts, with LGB women being the youngest of all, on average. The average age of straight men and women did not differ significantly. LGB men and women also had lower income on average, though for LGB women, the greatest difference was in family income while the difference in individual income was greatest for LGB men. This suggests that LGB women may be at a particular income disadvantage since the added income from a female

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\(^{10}\) Unless otherwise noted, statistical significance for hypothesis tests are reported as two-tailed p-values, though I generally describe the gender gap differences in directional (one-tailed) terms. The corresponding one-tailed p-value is simply one-half of the two-tailed p-value.
partner is likely to be lower than the added income from a male partner. In this sample, both LGB men and LGB women had slightly more years of education than their straight counterparts, though the difference for women was not statistically significant. Previous studies have also found that LGB people tend to be younger and have lower income, but have found mixed results with respect to education (Gallup 2012; Gates 2011).

Race and Ethnicity. With respect to race and ethnicity, there were no gender gaps among the straight population, but there were among the LGB population. Specifically, a larger proportion of LGB women than LGB men were black, while more LGB men were Hispanic than were LGB women. Furthermore, there were significant sexual identity gaps among people with Hispanic ethnicity: LGB men were much more likely than straight men to be Hispanic, but a smaller proportion of LGB women were Hispanic compared to straight women. To my knowledge, gender gaps in race and ethnicity among the LGB population have not previously been reported.

Religion. Examining the religious variables, there were no gender or sexual identity gaps in Jewish religious denomination, but LGB women were less likely than straight women to be Catholic. Among those people with no religious affiliation, there were very clear gender and sexual identity differences. Straight men were more likely than straight women to have no religion, and the same was true for LGB men compared to LGB women (though not at a statistically significant level). Both LGB men and women were more likely to have no religion than their straight counterparts.

In summary, this preliminary analysis of the four subpopulations of interest--straight men, straight women, LGB men, and LGB women--found: 1) significant gender gaps among the straight population on income and non-religion; 2) significant gender gaps among the LGB population on age (weakly) and minority race and ethnicity; and 3) sexual identity gaps between
the LGB and straight populations on age, income, Hispanic/Latino ethnicity, and religion. In the next section, I will present the primary hypotheses and analyses of gender and sexual identity gaps in political views, partisanship, national spending priorities, and specific social policies.

Method and Results

In this section, I describe the dependent variables of interest, state the hypotheses, then analyze and discuss results of the analysis, beginning with ideology and partisanship, continuing with opinions on national spending priorities, and concluding with opinions on specific social policies.

Ideology and Partisanship

Indicator variables were created for holding liberal political views, and for identifying as a Democrat. As described in the literature review, both gender gaps and sexual identity gaps have been found on these measures in the past, and I expected to find similar results in this sample. Specifically, I predicted that:

$H_1$: Straight women will be more likely than straight men to say they hold liberal political views and more likely to identify as Democrats or strong Democrats.

$H_2$: LGB individuals will be more likely to say they hold liberal political views and more likely to identity as Democrats or strong Democrats than straight individuals of the same sex.

As for a gender gap among LGB men and women on these variables, only two recent studies have examined this question, though gender gaps were not the primary focus of either study. Schaffner and Senic (2006) and Lewis et al. (2011) each examined the 2000 general election exit polls (and both used the same surveys from Voter News Service) as well as private non-probability samples of LGB-identifying individuals, both surveyed in 2000. Both studies found
that LGB women were more likely to identify as Democrats than were LGB men, after controlling for basic demographic variables. Schaffner and Senic found that LGB women were more likely to have voted for the Democratic presidential candidate, Al Gore, in 2000, but Lewis et al. found the reverse to be true after controlling for the higher liberalism of LGB women, a factor for which Schaffner and Senic did not control. It is uncertain whether these samples are representative of the general LGB population since the exit polls obviously do not survey non-voters and the private surveys were not selected through probability sampling. Furthermore, all three surveys were conducted in 2000, and the visibility of sexual minorities as well as the salience of their issues has increased significantly since then. However, these results are the only empirical evidence available for reference; therefore, I expected to find that the current study would find gender gaps among LGB men and women on liberalism and party identification, such that:

\[ H_3: \text{LGB women will be more likely than LGB men to identify as Democrats and to hold liberal political views.} \]

In order to test these hypotheses, I examined the bivariate relationships shown in Table 1. As shown, straight men were more likely than straight women to hold conservative political views, but they were not any more likely to identify as a Republican or strong Republican. Straight women were 3 percentage points more likely than straight men to hold liberal political views and 9 percentage points more likely to identify as a Democrat or strong Democrat; both differences were statistically significant. In addition, straight men were 6 percentage points more likely than straight women to identify as an Independent. This result fully supports \( H_1 \).

Also as expected, LGB men and LGB women were both more likely than their straight counterparts to say they held liberal political views, and were much less likely to identify as Republicans or strong Republicans. However, while LGB men were 23 percentage points more
likely than straight men to identify as Democrats, LGB women were no different in this regard from straight women. Instead, LGB women identified as Independents much more often than did either straight women. Thus $H_2$ is only partially supported. Furthermore, the gender gaps between LGB men and women appear to have reversed since the 2000 Voter News Survey that Schaffner and Senic (2006) and Lewis et al. (2011) studied, with LGB men 10 percentage points more likely to describe their political views as liberal and 12 percentage points more likely to identify as Democrats or strong Democrats than LGB women (though it is important to recall that their samples were not representative). LGB women were 8 percentage points more likely to hold conservative political views, but there was no gender gap on Republican party identification. Perhaps most surprising, while both LGB men and women were less likely than their straight counterparts to hold conservative political views and less likely to identify as Republicans or strong Republicans, only LGB men were more likely to identify as Democrats or strong Democrats. LGB women were actually 11 percentage points more likely than LGB men and 16 percentage points more likely than straight women to identify as Independents; both results were strongly significant. In other words, while LGB men and women were both more likely than the straight population to say they held liberal views, there were clear gender gaps among LGB men and women in partisanship, with LGB men more likely to be Democrats and LGB women more likely to be Independents.

One plausible explanation for this might be that LGB women who identified as Independents really were "closet" Democrats, and so I also examined LGB party identification when Independents who "leaned" towards one party or another were counted as partisans, but the same pattern emerged; in fact, the differences between LGB men and women were even larger and
more significant (one-tailed p-values <= 0.062). This suggests that the gender gap in partisanship among LGB men and women is not an artifact of measurement.

Of the three general theories accounting for gender gaps, this finding appears to support the "political mobilization" explanation the best. As discussed above, while LGB individuals appeared to be at an economic disadvantage to the straight population, LGB women were at the greatest disadvantage, so the "care for the disadvantaged" theory predicted that they would be both more liberal and more Democrat than LGB men, but they were actually less liberal and less likely to be Democrats. The evidence in this sample also does not support the "gender socialization" theory since if it is the case that LGB men and women have rejected traditional stereotypes and instead adopted an "ethic of care" ideology, we would not expect to find any gender gap on these items. The "political mobilization" theory, however, predicted that partisanship and ideology gender gaps might be found among LGB men and women if the extent to which they have been mobilized by political elites differed. For example, if there are gender differences in the salience of issues among LGB men and women, this might account for the partisanship gender gap. One possibility is that while the Democratic party has been much more supportive of most policies that favor sexual minorities than the Republican party, they were much slower to support same-sex marriage. The 1996 Defense of Marriage Act that prohibits federal recognition of same-sex marriage was supported and signed by President Bill Clinton, and President Barack Obama officially opposed same-sex marriage until 2012, the same year that support for same-sex marriage was added Democratic Party platform. If marriage is more salient to LGB women than to LGB men (and I describe evidence for this in Part II), then they may have been less responsive to Democratic appeals on other issues, while LGB men may have been more
responsive because other sexual minority issues that the Democratic party has advanced, such as allowing open military service, were more salient to them.

**National Spending Priorities**

Next, in order to evaluate whether there were gender gaps in the attitudes of LGB men and women towards various national problems, I analyzed the 17 national spending priorities items in the General Social Survey. For these items, respondents are prompted: "We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount." Sapiro (2003) analyzed fifteen of these categories in the General Social Survey data from 1973 to 2000 and found six that showed evidence of gender gaps in the majority of survey waves: the problems of big cities, the condition of blacks, crime, social security, highways and bridges, and space exploration, with women more likely to say too little was being spent on the first four categories and men more supportive of the last two; but she also noted that there was substantial variation across the biennial survey waves.

Given the large number of these items, and concerns about their variation wave-to-wave, I used common factor analysis to explore the underlying structure and reduce the number of variables. Since it was reasonable to suspect that the underlying factors might be correlated (a suspicion confirmed by examination of the rotated factor correlation matrix), I applied a Promax (oblique) rotation. Four theoretically significant factors were revealed, shown in Table 2. Positive

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1. The General Social Survey used some different versions of several of these items in the three different survey waves in my sample, but the differences were so slight that I chose to pool them for this analysis. For example, some people were asked if we were spending too little "solving the problems of big cities" while others were asked about the level of spending for "assistance to big cities." Sapiro (2003) also pooled these items for the same reason.

2. Two additional categories were added to the General Social Survey after Sapiro’s 2003 study, which I have included in this analysis: assistance for childcare and support for scientific research.
factors correspond to believing that too little was being spent on that particular area. I then used the factor loadings to calculate four separate factor scores using the regression method (Thomson, 1951).

Examining the significant factors loadings (loading greater than or equal to 0.30), these four factors appear to correspond to attitudes about four distinct types of problems. Factor 1, which includes support for the environment, health, education, childcare, welfare and Social Security, was termed "Compassion" priorities. Factor 2 includes support for foreign aid, assistance to blacks, assistance to big cities, and drug addiction and rehabilitation, which are still "compassion" priorities, but are distinct from Factor 1 in that they are, for many people, problems of outgroups or "unlike" others; I've named Factor 2 "Compassion for Outgroups." Factor 3 corresponds to support for "Science and Infrastructure" while Factor 4 involves "Crime and Defense."

I then estimated two OLS multiple regression models for each factor. Model 1 controlled only for the demographic variables described above, while Model 2 added controls for ideology and party identification. Since it appeared that both LGB men and women were more liberal than the straight population, and that LGB men are more likely to be Democrats than are LGB women, it was necessary to control for these factors to determine whether or not any apparent effects of gender in Model 1 (or its absence) were due only to the greater liberalism of LGB men and women and the greater Democratic partisanship of LGB men, as the "political mobilization"

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13 Individual income was excluded due to its higher proportion of missing data. Family income was logged in order to reduce the influence of the original variable's skewed distribution. Also, missing values for family income were imputed from the median family income for the corresponding sex and sexual identity category, though only 3.7% of LGB men and 4.7% of LGB women omitted this item. An indicator for this imputation was included to test for the significance of the omitted data, but there was no evidence that it was significant.
theory might suggest, or whether "caring for the disadvantaged" and "gender socialization" might also play a role.14

"Compassion" and "Compassion for Outgroups". Of course, all three of the gender gap theories predicted that, before controlling for ideology and partisan identity, LGB men and women would have higher scores for both Factors 1 and 2, indicating support for more spending on the "compassion" issues which are generally associated with liberal concerns about inequality. After controlling for ideology and partisanship, the "political mobilization" theory implied that any sexual identity gaps would disappear, though gender gaps might remain, while the "care for the disadvantaged" theory suggested that a sexual identity gap might still remain with LGB women being more supportive because they are more disadvantaged. The "gender socialization" theory implied that no gender gap between LGB men and women would be found, but controlling for ideology might diminish the sexual identity gap between the LGB and straight populations.

Examining Figure 1, the prediction scores for Factor 1 and Factor 2 using the Model 1 specification reveal a significant gender gap between straight men and women on both factors, with straight women being more likely to say that too little was being spent on "Compassion" and "Compassion for Outgroups" priorities, while straight men were more likely to say that too much was being spent. Furthermore, these gender gaps shrink somewhat after controlling for ideology and partisanship (Model 2), but the gaps remain statistically significant.

LGB men and women, on the other hand, were both more likely to say too little was being spent on both factors, based on the Model 1 estimates. There is a small gender gap on both, with LGB men being more supportive than LGB women, but the difference is not statistically

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14 In the remaining analysis, given the large number of dependent variables, each with two regression models, and the difficulty of directly interpreting logit regression coefficients, the regression model estimates are not presented here, but are available from the author.
significant. After controlling for ideology and partisanship, however, the sexual identity gap goes away on "Compassion" priorities, and shrinks considerably on "Compassion for Outgroups", and the gender gap practically disappears. Taken together, these results are partially explained by political mobilization since the substantially greater support for these priorities appears to be strongly correlated with partisanship and ideology. The fact that the gender gap also disappears in Model 2 suggests that ideology and party identity alone can't account for the influence of gender; however, the rejection of gender stereotypes would be consistent with this finding. Therefore, these results appear to support both the "political mobilization" and "gender socialization" theories.

"Science and Infrastructure" and "Crime and Defense". Factors 3 and 4 are largely unrelated to social welfare policies and so the "care for the disadvantaged" or the "gender socialization" theories would predict neither gender gaps nor sexual identity gaps. "Political mobilization" would not predict gender gaps on Factor 3 since "Science and Infrastructure" needs have not typically been used by political elites to mobilize partisans, but since Republicans have a reputation for supporting national defense and for being tough on crime, this theory would predict gender gaps on Factor 4, though they might diminish once controls for ideology and party identification are added.

As can be seen in Figure 2, there were again significant gender gaps between straight men and women on both of these priorities, with men being more likely to say that too little was being spent on "Science and Infrastructure" and women being more likely to say that too little was being spent on "Crime and Defense" priorities; these gender gaps were largely unchanged when controls for ideology and partisanship were added. The finding that straight women were more supportive of law enforcement and national defense is somewhat surprising given that most
previous studies have found women to be less supportive of defense and the military. However, in Shapiro's study of the GSS spending priorities (2003), she found that women were more supportive of the "crime" category in 16 of the survey waves and she found no gender gap in the other 7 waves. She also found that men were more supportive of the "defense" category in only three of the survey waves. Also, I examined data from the GSS waves since 2000 and found that the proportion of women who said that too little was being spent on defense has shown a distinct upward trend since that time.\(^\text{15}\) This evidence appears to suggest that the gender gap on these issues may be evolving.

Turning to the LGB population, there is also evidence of gender gaps for both factors and in both models, though the differences are all smaller than those between straight men and women, and the differences are not statistically significant. On Factor 4, however, LGB men are more supportive of "Crime and Defense" than are LGB women, the reverse of the gender gap found in the population. Adding controls ideology and party identity reduces the LGB gender gaps still further.

The evidence of LGB gender gaps on Factors 3 and 4 is not predicted by the "care for the disadvantaged" or the "gender socialization" theories, but "political mobilization" might explain these findings. Democrats and Republicans have tended not to take distinctive positions on science and infrastructure, and so it may be that men and women, regardless of sexual identity, simply tend to hold different views on these priorities, views that have not been targeted or politicized by political elites. This argument would account for the minimal sexual identity gaps on Factor 3 and the presence of gender gaps among both straight and LGB populations, both before and after controlling for ideology and partisanship.

\(^{15}\) This analysis is available from the author.
On the other hand, Republicans have frequently made appeals on the basis of crime and defense priorities, some of them explicitly targeting women. Consider, for example, efforts in the 2004 general election to attract so-called "security moms," women who were concerned about terrorism and the safety of their families, and the gender gap among straight men and women might reflect the appeal of this effort. LGB women, however, were probably less likely to be swayed by Republican appeals given the Republican party's opposition to other sexual minority issues, which could explain why the smaller LGB gender gap on Factor 4 is in the opposite direction from that of the straight population.

Taken together, the evidence from the examination of the national spending priorities appears to strongly support the "political mobilization" argument, but there is also partial support for the "gender socialization" theory. There is no evidence that supports the "care for the disadvantaged" explanation.

**Social Policies**

Finally, a number of variables were also created for attitudes towards a variety of social policies, including some of particular interest to women and to sexual minorities. Indicators were coded for opposing the death penalty, supporting gun control, supporting preferential hiring and promotion of women, supporting legal access to abortion for any reason, supporting legal access to abortion for single mothers who don't wish to marry, and supporting same-sex marriage. Also, three items that measured attitudes about the government's social responsibilities were coded, with indicators corresponding to beliefs that the government should improve the standard of living of the poor, the government should improve the standard of living of blacks, and the government should do more to solve the country's problems. Support for the more liberal position was coded "1" for each of these dependent variables, and two logit multiple regression
models were estimated for each. As before, Model 1 controlled only for the demographic variables described above, and Model 2 added controls for ideology and party identification.

I first examined attitudes on policies of particular interest to sexual minorities and to women. In Figure 3, the probability of support for same-sex marriage is presented. Gender gaps in attitudes towards policies that affect sexual minorities have often been found, and this data was no exception for straight women are more supportive of same-sex marriage than straight men based on estimates from all three models. Furthermore, in both Models 1 and 2, LGB women are estimated to be more supportive of same-sex marriage than are LGB men, and the effect of gender is statistically significant. Finally, there is a clear, if unsurprising, sexual identity gap, with both LGB men and LGB women more supportive of same-sex marriage than their straight counterparts. This may, again, be a sign of differences in issue salience between LGB men and women, an explanation consistent with the "political mobilization" theory.

Also in Figure 3, examining support for employers to preferentially hire and promote women, I again find that a gender gap exists among straight women and men, with women being more likely to support such practices. LGB men and women also show a gender gap, but it is LGB men that are more supportive, even after controlling for ideology and partisanship; this difference is not, however, statistically significant. If it is present in the LGB population, is difficult to explain with any of the gender gap theories since only "political mobilization" explanations are consistent with such a gender gap, but it doesn't seem as though this issue has been particularly salient.

Next, Figure 4 presents the opinion gaps on two social policies that have tended to show some of the most durable gender differences, capital punishment and gun control. In both cases, the expected gender gap among straight men and women is apparent in both models, with women being more opposed to capital punishment and more supportive of gun control, at statistically
significant levels. In addition, similar gender gaps appear to exist among gay men and lesbian women, though here the differences are not statistically significant. There is very little evidence of a sexual identity gap; LGB men and women appear to be very similar to straight men and women on these issues. These policies provide little additional evidence for or against any of the gender gap theories.

Next, I examined opinions about abortion, an issue that, though polarizing, has not generally been found to produce opinion gaps on the basis of gender, at least in the general population. I analyzed support for allowing legal access to abortion for any reason, in the case of pregnancy that resulted from rape, and if there was a strong chance of a birth defect. I selected these items expecting that different factors might influence responses for them: allowing access to abortion for any reason might be driven more by ideological absolutism or partisanship, while allowing access to abortion for in the case of rape might be driven more by an "ethic of caring." The third item, allowing abortion when a birth defect is suspected, might be expected to reveal a sexual identity gap if LGB individuals are concerned that medical science might one day make it possible to predict a fetus's sexual orientation and that same-sex attraction might be viewed as a birth defect. The results of these estimates are shown in Figure 5.

In this case, as expected, there is no evidence of a gender gap among straight men and women for any of the abortion reasons. There do appear to be modest sexual identity gaps, not all of which are statistically significant, and they appear to be resistant to model specification. LGB men appear to be only slightly more likely than straight men to support abortion for these reasons, but LGB women were more supportive of allowing abortion for any reason, even after controlling for ideology and partisanship. This result may indicate that comparative lack of salience and self-interest that LGB men are likely to have in this issue, or perhaps it in fact
reflects the influence of traditional gender roles on straight men and women. It may be the case that it is the presence of traditional gender roles that tends to moderate gender differences on this issue among straight people, and, in the absence of traditional gender roles, the different levels of self-interest have greater influence in determining individual opinion.

Finally, I analyzed attitudes about the role of government with regards to social welfare. Respondents were asked three items to measure their belief that government has an obligation to improve the standard of living of poor people, to improve the lives of black Americans, and to act to solve the country's problems in general. These results are shown in Figure 6. Previous research has found mixed evidence of gender gaps with regards to social welfare obligations, and in this sample there was no real evidence of significant gender gaps among straight men and women on all three measures. There were, however, gender gaps among LGB men and women with respect to the government's obligation to help black Americans, with LGB women more likely to support government action, and with respect to solving our country's problems, with LGB men more likely to support government action. These gaps only appeared after controlling for ideology and partisanship, which is consistent with the "political mobilization" explanation.
Conclusion

This study sought to identify the existence and extent of gender gaps in public opinion among sexual minorities, and to consider the evidence for three different theoretical accounts of gender gaps. The small relative sample sizes made it important to consider a large number of opinion topics and model specification, each of which could reveal only a small piece of the puzzle, but taken together, a recognizable general picture emerged. Many of the gender gaps that have previously been documented among the general population, including several that were reproduced in the current study, did not appear to divide sexual minority women and men to the same degree if at all, and the small number of gender differences that were identified tended either to work in opposite directions or applied to topics where straight men and women often agreed. Of the theories explored, "political mobilization" seemed to offer the most consistent predictions of the result in these studies, the "gender socialization" theory was partially supported, and "care for the disadvantaged" explanations were mostly discounted. Though this study has only scratched the surface of this topic, it is my hope that these findings will spur further collection of the necessary data so that we may test these findings and expand our understanding of the fascinating roles of gender and sexuality in politics.
## Appendix A: Tables and Figures for Part I

### Table 1. Descriptive Statistics by Sexual Identity and Gender.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Straight Men</th>
<th>Straight Women</th>
<th>LGB Men</th>
<th>LGB Women</th>
<th>LGB Men - Straight Men</th>
<th>LGB Women - Straight Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>45.4</td>
<td>46.0</td>
<td>39.9</td>
<td>35.9</td>
<td>-4.0**</td>
<td>-5.5***</td>
</tr>
<tr>
<td>Education (years)</td>
<td>13.5</td>
<td>13.6</td>
<td>14.4</td>
<td>14.1</td>
<td>-0.3</td>
<td>0.9**</td>
</tr>
<tr>
<td>Family income (constant $)</td>
<td>58151</td>
<td>50937</td>
<td>52837</td>
<td>41930</td>
<td>-10907</td>
<td>-5314</td>
</tr>
<tr>
<td>Individual income (constant $)</td>
<td>46875</td>
<td>27735</td>
<td>30936</td>
<td>27161</td>
<td>-3775</td>
<td>-15938***</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.12</td>
<td>0.14</td>
<td>0.08</td>
<td>0.22</td>
<td>0.14**</td>
<td>-0.04</td>
</tr>
<tr>
<td>White</td>
<td>0.77</td>
<td>0.76</td>
<td>0.75</td>
<td>0.77</td>
<td>0.01</td>
<td>-0.02</td>
</tr>
<tr>
<td>Other</td>
<td>0.10</td>
<td>0.09</td>
<td>0.18</td>
<td>0.06</td>
<td>-0.12</td>
<td>0.08</td>
</tr>
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<td>Ethnicity</td>
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<td>0.13</td>
<td>0.29</td>
<td>0.07</td>
<td>-0.22***</td>
<td>0.16**</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholic</td>
<td>0.24</td>
<td>0.25</td>
<td>0.25</td>
<td>0.15</td>
<td>-0.10</td>
<td>0.01</td>
</tr>
<tr>
<td>Jewish</td>
<td>0.02</td>
<td>0.01</td>
<td>0.03</td>
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<td>0.01</td>
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<tr>
<td>No religion</td>
<td>0.23</td>
<td>0.14</td>
<td>0.40</td>
<td>0.29</td>
<td>-0.10</td>
<td>0.17**</td>
</tr>
<tr>
<td>Additional Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ideology</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Liberal</td>
<td>0.25</td>
<td>0.28</td>
<td>0.58</td>
<td>0.48</td>
<td>-0.10</td>
<td>0.34***</td>
</tr>
<tr>
<td>Moderate</td>
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<td>0.38</td>
<td>0.31</td>
<td>0.34</td>
<td>0.02</td>
<td>-0.07</td>
</tr>
<tr>
<td>Conservative</td>
<td>0.37</td>
<td>0.33</td>
<td>0.10</td>
<td>0.18</td>
<td>0.08</td>
<td>-0.27***</td>
</tr>
<tr>
<td>Party Identification</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat/Strong Democrat</td>
<td>0.29</td>
<td>0.38</td>
<td>0.51</td>
<td>0.39</td>
<td>-0.12</td>
<td>0.23***</td>
</tr>
<tr>
<td>Independent (with &quot;leaners&quot;)</td>
<td>0.42</td>
<td>0.36</td>
<td>0.40</td>
<td>0.51</td>
<td>0.11</td>
<td>-0.02</td>
</tr>
<tr>
<td>Republican/Strong Republican</td>
<td>0.26</td>
<td>0.25</td>
<td>0.06</td>
<td>0.05</td>
<td>-0.01</td>
<td>-0.20***</td>
</tr>
<tr>
<td>Other party</td>
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<td>0.02</td>
<td>0.03</td>
<td>0.05</td>
<td>0.02</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Cells contain estimated population means (for numeric variables) or proportions (for categorical variables) and estimated differences between subgroups. All estimates were calculated using General Social Survey non-response weights. Asterisks indicate significance from two-tailed tests of differences: * = p-value < 0.1; ** = p-value < 0.05; *** = p-value < 0.01.
Table 2. Factor Analysis of the General Social Survey Spending Series.

<table>
<thead>
<tr>
<th>Spending Category</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
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<tbody>
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<td>Environment</td>
<td>0.540</td>
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<td>0.145</td>
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<tr>
<td>Health</td>
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<tr>
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<td>Assistance to big cities</td>
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<td>0.431</td>
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<td>Parks and recreation</td>
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% of total variance: 87.3, 24.1, 17.9, 12.8

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Cells contain principal factor loadings from an oblique (Promax) rotation of 3,917 responses to items measuring national spending priority opinions. Positive values corresponded to the opinion that "too little" was being spent while negative values corresponded to the opinion that "too much" was being spent. Loadings less than 0.10 are not shown; loadings ≧ 0.30 (shaded above) were considered relevant to factor loadings.
Figure 1. Predicted Factor Scores for “Compassion” and “Compassion for Outgroups” National Spending Priorities, by Sex and Sexual Identity.

Factor 1: “Compassion” Priorities

Factor 2: “Compassion for Outgroups” Priorities

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations.
Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two OLS multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
Figure 2. Predicted Factor Scores for “Science and Infrastructure” and “Crime and Defense” National Spending Priorities, by Sex and Sexual Identity.

Factor 3: Science and Infrastructure Priorities

Factor 4: Crime and Defense Priorities

Source: General Social Survey Cumulative Datafile (2008-2012) and author's calculations. Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two OLS multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
Figure 3. Probability of Support for Same-Sex Marriage and Preferential Hiring and Promotion of Women, by Sex and Sexual Identity.

Support for Same-Sex Marriage

Support for Preferential Hiring and Promotion of Women

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two logit multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
Figure 4. Probability of Opposition to Capital Punishment and Support for Requiring Gun Permits, by Sex and Sexual Identity.

**Opposition to Capital Punishment**

Model 1

Model 2

**Support for Requiring Gun Permits**

Model 1

Model 2

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two logit multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
Figure 5. Probability of Support for Legal Access to Abortion for Different Reasons, by Sex and Sexual Identity.

For Any Reason

Model 1

Model 2

Pregnant as a Result of Rape

Model 1

Model 2

Strong Chance of a Serious Defect in the Baby

Model 1

Model 2

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two logit multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
Figure 6. Probability of Support for More Government Action for Different Purposes, by Sex and Sexual Identity.

To Improve the Standard of Living of the Poor

To Improve the Standard of Living of Blacks

To Solve Our Country’s Problems

Model 1

Model 2

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 90% confidence intervals for the predicted factor score for four combinations of sex and sexual identity. Estimates are from two logit multiple regression models: Model 1 controls for demographic variables only; Model 2 adds controls for demographic variables, ideology, and party identification.
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PART II:

POLITICAL ATTITUDES WHEN SEXUAL BEHAVIOR CONTRADICTS SEXUAL IDENTITY

Abstract

There is a popular view that some people who are most opposed to homosexuality and equal rights for sexual minorities are, in fact, motivated by shame about their own suppressed same-sex attraction, and some scientific studies have found evidence that supports this argument. These studies only examined straight-identifying individuals who concealed or denied their same-sex attraction, but there are people who, while not identifying as straight, do not deny their same-sex attraction or sexual behavior. These individuals, sometimes termed the "downlow" population, may have more positive affect towards sexual minorities and express greater support for policies that favor sexual minorities. I used logit multiple regression to analyze data from the 2008-2012 General Social Survey, and found that support for legal recognition of same-sex marriage and political tolerance of sexual minorities tended to be greater among "downlow" individuals compared to other straight-identifying people, but that the effect was moderated by marital status such that married, "downlow" individuals were no different from "non-downlow" straight-identifiers.
Introduction and Theory

It's uncertain whether the spate of recent successes by the advocates of civil rights for gay men, lesbian women and bisexuals ("Don't Ask, Don't Tell," the legal prohibition on gays, lesbians and bisexuals serving openly in the military was repealed in 2011, and, in 2012, voters approved same-sex marriage in Maryland, Maine, and Washington) has discouraged or re-energized their foes. Some opponents, guided by conservative religious doctrine or belief, are likely to continue the fight, believing it a moral imperative. Other opponents, who have primarily been motivated by conservative political ideology or party identification, may follow the lead of a growing number of Republican political elites, such as former presidential candidates Newt Gingrich and Jon Huntsman, who have recently endorsed gay marriage. Some of the most steadfast opponents, however, may be motivated by anxiety about their own latent same-sex attraction.

The many sensational examples of gay rights opponents reportedly "outed" in gay-sex scandals in recent years, such as Rev. Ted Haggard, Rep. Mark Foley, and Sen. Larry Craig, seem to lend support to the common trope that individuals who experience same-sex attraction, but who do not identify as gay, lesbian or bisexual, are among the most bitter foes of LGB civil rights. Though the phrase “gay rights” is frequently used elsewhere as a convenient shorthand to refer to civil rights for all sexual minorities, not just gay men, such rights protections are not ordinarily predicated on an individual actually identifying as gay, lesbian or bisexual. For example, a male soldier who has sex with other men, but who does not call himself gay, is just as protected by the repeal of “Don’t Ask, Don’t Tell” as is the soldier who tells his superior officer that he is a gay man. I prefer, therefore, the term “sexual minorities” to refer to all individuals who experience same-sex attraction, regardless of their self-identity or sexual behavior. When I wish to distinguish minority sexual identity from minority sexual behavior, I typically refer to someone who has “an LGB identity” or “same-sex sexual partners,” respectively. Finally, LGB individuals often report feeling that the term “homosexual” is derogatory, and so I avoid it. Similarly, although “gay” is sometimes used to refer to all LGB individuals, many lesbian women and bisexual men and women feel excluded by this term, so I do not use it except to refer only to gay men. The term “heterosexual” has been found to be confusing to some survey.

Notes on terminology: “LGB” is an acronym commonly used to refer to the population of individuals who self-identify as lesbian, gay, or bisexual, and I use it to mean the same thing in this paper. This study, however, is particularly interested in the political opinions of all people who are sexually attracted to the same sex, whether or not they self-identify as lesbian, gay or bisexual. To make clear this distinction, I use the phrase “sexual minorities” to refer to all individuals who experience same-sex attraction, regardless of their self-identity or sexual behavior. For example, a male soldier who has sex with other men, but who does not call himself gay, is just as protected by the repeal of “Don’t Ask, Don’t Tell” as is the soldier who tells his superior officer that he is a gay man. I prefer, therefore, the term “sexual minorities” to refer to all individuals who experience same-sex attraction, regardless of their self-identity or sexual behavior. When I wish to distinguish minority sexual identity from minority sexual behavior, I typically refer to someone who has “an LGB identity” or “same-sex sexual partners,” respectively. Finally, LGB individuals often report feeling that the term “homosexual” is derogatory, and so I avoid it. Similarly, although “gay” is sometimes used to refer to all LGB individuals, many lesbian women and bisexual men and women feel excluded by this term, so I do not use it except to refer only to gay men. The term “heterosexual” has been found to be confusing to some survey.
rights. One example of this trope can be found at the website “http://gayhomophobe.com”, which claims to document cases in which “someone who used a position of power to promote or support an anti-gay agenda, and turned out to be a closet case”, and which listed 27 such examples as of March 1, 2013. But does the popular conception that closeted same-sex-attracted individuals have anti-LGB political attitudes reflect the truth?

There has been research that appears to support the conventional wisdom. A recent, widely reported study (Weinstein et al. 2012) found that, among college students who identified themselves as straight or heterosexual, participants who showed evidence of an implicit "gay sexual orientation" (817) were more likely to express homophobic attitudes and to oppose social policies favoring sexual minorities than were the straight-identifying participants whose implicit sexual orientation was straight.

Furthermore, a number of individuals who once opposed sexual minority rights have subsequently "come out of the closet," that is, they now identify as gay, lesbian or bisexual, and they have become vocal proponents of the sexual minority rights against which they previously fought. Ken Mehlman, former chairman of the Republican National Committee, and Kathryn Lehman, a lobbyist and former Congressional staff member who helped write the Defense of Marriage Act, are just two recent examples. These examples might make it seem as though the key differentiator of political attitudes among sexual minorities is "in the closet" versus "out and proud."

The problem with this account, however, is that sexual orientation is both more complex and more dynamic than a single category or label suggests. It's certainly true that one individual who

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respondents, but that measurement error is reduced when respondents are given the option “heterosexual or straight” (Badgett and Goldberg 2009). Given this, and since it seems unlikely that most people find the term “straight” derogatory, I use it when referring to individuals who identify themselves as straight or heterosexual, regardless of their sexual behavior.
is attracted to the same sex might identify as "straight" and have sex only with partners of the opposite sex; while a second same-sex-attracted individual might identify as "gay" or "lesbian" and have sex only with same-sex partners. Those individuals represent, however, just two ends of the spectrum of many possible expressions of sexual orientation; in fact, those two individuals might even be the same person at different ages or in different contexts. Same-sex-attracted individuals may explore many different expressions of sexual orientation in their lifetimes, and psychologists who study sexual orientation have adopted a popular phrase to describe this exploration; they call it the "coming out" process. If occupying either of the two ends of this spectrum might influence one's political attitudes about the rights of sexual minorities, then we should consider the possibility that being situated at other points in the "coming out process" might also be politically significant.

This study seeks to answer two questions. First, are individuals who identify as "straight" and who have sex with same-sex partners (sometimes referred to as "being on the down low") more or less hostile to the civil rights of sexual minorities than individuals who identify as gay, lesbian or bisexual? Second, what does conceptualizing sexual orientation as a spectrum, rather than a dichotomous condition, reveal about the influence of sexual orientation on the political attitudes of sexual minorities?

To investigate these questions, I first summarize the concept of sexual orientation and the psychological model of the "coming out process," and present a theory for how sexual orientation might influence political attitudes towards sexual minorities. I then specify testable hypotheses,

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17 The phrases “on the down low,” “on the DL” and the term “downlow” are in colloquial use to refer to an individual (often, though not exclusively, presumed to be a black male) who identifies as straight, but who has sex with other men. Use of this term in common discourse is not without controversy (see, for example, Phillips 2005 for a critical deconstruction); but for the sake of brevity and readability in this study, it is useful. To be clear, I use “downlow” to mean any individual, regardless of sex or race, who identifies as straight, but who has sex, occasionally or exclusively, with same-sex partners.
analyze survey data from the General Social Survey to test the hypotheses, and discuss the results and implications.

**Sexual Orientation and the "Coming Out" Process**

Since the mid-19th century, when research into sexuality began in earnest, psychologists have suggested a variety of ways to think about the phenomenon we now commonly refer to as sexual orientation.\(^ {18} \) Though the terms "heterosexual" and "homosexual" did not enter widespread use until the early 20th century, psychological frameworks for characterizing variation in individual sexuality were proposed as early as 1860 (Ulrichs 1994). Erik Erikson's groundbreaking theory of identity development (1968) paved the way for other researchers to conceive of sexual orientation as a dynamic, evolving process, rather than a static, immutable condition. To consider why and how sexual orientation and the "coming out" process might influence political attitudes among sexual minorities, a brief review of this research literature is appropriate.

Sell (1997), in reviewing the theoretical history of the sexual orientation concept, found that even the earliest researchers viewed sexual orientation as multidimensional, observing that it had physical, emotional and behavioral aspects. This early research, according to Sell, tended to focus on the identification and measurement of masculine and feminine traits in men, and the classification of a man's primary sexual attraction as being towards women or towards men, but it tended to ignore actual sexual activity or the sexual orientation of women.

As these early deficiencies in the conceptualization of sexual orientation were gradually addressed, a more nuanced and generalizable view of sexual orientation emerged. For example,

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\(^ {18} \) Modern psychologists often prefer the term “sexual identity” to “sexual orientation,” but, for reasons that will become clear, “sexual identity” can be used to mean both the entirety of sexual orientation or one single component of it. To avoid confusion, I will use the term “sexual orientation” in its comprehensive sense.
Kinsey et al. (1948) challenged the then-predominant view of sexual orientation as basically dichotomous when they introduced the now-famous 7-point scale, which conceptualized sexual orientation on a spectrum ranging from "exclusively heterosexual" (or a "Kinsey Zero") to "exclusively homosexual" (a "Kinsey Six"). Kinsey also considered sexual fantasy, as opposed to actual sexual behavior, to be an important component of sexual orientation and found that many women and men had same-sex fantasies whether or not they had same-sex sexual experiences.

Shively and DeCecco (1981), in developing their own sexual orientation scale, included same-sex sexual behavior, fantasy, and emotional attachments. More recently, Klein et al. (1985) described sexual orientation as consisting of seven different dimensions—heterosexual/homosexual lifestyle, sexual fantasies, emotional preference, social preference, self-identification, sexual attraction, and sexual behavior—and proposed measuring each of them on a similar 7-point scale, called the Klein Sexual Orientation Grid.

Though these and other current models of sexual orientation do not all agree about the exact number or significance of sexual orientation's dimensions, most tend to include at least these three components: sexual attraction, sexual self-identification, and sexual behavior. Furthermore, they generally agree that these components may vary within individuals, across individuals, and over time, particularly for sexual minorities. Indeed, for individuals who feel attracted to others of the same sex, struggling with whether to act on those sexual attractions or choosing to identify oneself as straight, bisexual, gay, lesbian or something else can be significant, life-changing decisions with powerful implications, both psychological and material. Therefore, the particular configuration of attraction, identity and behavior that constitutes one's sexual orientation at one particular time may take on a different configuration at another, and this ongoing evolution in one's sexual orientation among sexual minorities is frequently referred to as the "coming out"
process. Psychological models of the "coming out" process\textsuperscript{19} provide clues as to how sexual orientation might be politically influential, but before examining those models, it's important to be clear about the differences between the three primary components of sexual orientation.

**Sexual Attraction, Identity, and Behavior**

First, an individual's "sexual attraction" refers to whether he or she primarily feels erotically drawn to members of the opposite sex, the same sex, or to both sexes.\textsuperscript{20} Even early researchers thought of sexual attraction as being an innate psychological state, not a matter of conscious choice; and same-sex-attracted individuals often describe their sexual attraction as being something they can't change, even while acknowledging that their sexual identity and sexual behavior might be more mutable or fluid. Recent twin studies have reported that sexual attraction appears strongly predisposed by genetic or prenatal factors (Bailey et al. 2000; Kendler et al. 2000), and so sexual attraction is generally thought to be the most stable component of sexual orientation.

To understand the second component of sexual orientation, sexual identity, it's helpful to examine the broader psychological concept of identity. Hogg and Abrams proposed a useful, succinct definition of identity: it is "people's concepts of who they are, of what sort of people they are, and how they relate to others" (1988, 2). An individual's identity arises, psychologist Erik Erikson suggested (1963), from a sense that one has both a consistent and continuous self, and a sense that others recognize one's self as such. Our identities consist not just of the thoughts and perceptions that we have about ourselves, but also the thoughts and perceptions about us that

\textsuperscript{19} "Models of the coming out process" are also sometimes referred to as "models of sexual identity development," but I find the former phrase both more convenient and more descriptive.

\textsuperscript{20} Sell (1997, 648) lists a wide array of terms that have been used in previous research to describe sexual attraction, including "sexual passion," "sexual urge," "sexual feelings," "sexual interest" and "sexual instinct," just to name a few.
other's hold, making it a critical bridge between the internal and external world (Tajfel 1981; Ashmore et al. 2004).

Identity is also self-determined, in the sense that one controls (or seeks to control) how one will present oneself to others; that is, one decides to say, "I am this kind of a person," but also to say "I am not that kind of a person." Erikson believed that identity consisted of five component domains, the sexual identity being one; and so sexual identity can be thought of as one's answer to the question, "What kind of a sexual person are you?" whose possible answers might include gay, straight, lesbian, bisexual, queer, or something else entirely. In addition to the way one answers this question in one's own mind, the answer one gives others may vary according to who is asking the question: are they friends, family, employers, politicians, researchers, dates, or sexual partners? The answer may also vary depending on when, where and how it is asked. Indeed, a number of studies have found variation in sexual identity over time, particularly during adolescence and young adulthood (see, for example, Rosario et al. 1996; Friedman et al. 2004; Kinnish et al. 2005). Sometimes, variations in sexual identity may reflect an attempt to conceal one's sexual orientation, especially if one fears a prejudicial or harmful response. At other times, however, such variation may reflect the fact that all such identity categories are socially constructed, and the meaning and significance of one's sexual identity may be continually evolving in response to individual, group, and societal factors. An individual that gives different

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21 Identity, like most phenomena that cannot be directly observed, is not easy to measure. Psychologists who have studied identity among sexual minorities have proposed a variety of measures and instruments. For example, the Lesbian, Gay, and Bisexual Identity Scale (Mohr and Kendra 2011), constructed from a number of pre-existing identity measures, uses a 27-item self-reported questionnaire to measure eight different dimensions of sexual minority identity, such as the centrality of the sexual identity to one's overall identity and the desire to conceal one's sexual identity from others. Obviously, including such an instrument in many of the surveys of interest to political scientists would be prohibitive because of both the instrument's length and the small relative size of its target population. In this study, for example, sexual identity was operationalized simply as the response to the question, “Which of the following best describes you: Gay, lesbian, or homosexual; bisexual; heterosexual or straight?”
answers to the sexual identity question to different people or in different contexts should not automatically be viewed as unreliable if the truth is that his or her self-identity does, indeed, vary.

Sexual orientation's third component, sexual behavior, is somewhat easier to conceptualize than identity. At its most basic, sexual behavior refers to whether or not individuals engage in sexual contact, so we might simply make a dichotomous "sexually active" or "not sexually active" distinction. If an individual is sexually active, then sexual behavior can also refer to the frequency of sexual activity, the number of sexual partners and their sex (opposite-sex, same-sex, or both), and the type of contact or sexual activity in which the individual has engaged. Since such a broad definition of sexual behavior might show tremendous variation for a variety of reasons unrelated to sexual minority status (such as sexual frequency varying with age), in this study, I limited the conceptualization of sexual behavior to the presence or absence of sexual activity and the sex of the individual's sexual partners.

Studies of the three components of sexual orientation in the general population typically find relatively high degrees of correlation among them, but among sexual minorities, discrepancies between these components are quite common. Individuals who feel sexually attracted to the same sex may, depending on where they are in the "coming out" process, make choices about their sexual identity and sexual behavior that are inconsistent with each other or with their attraction. For example, one study found that an American adult who reported any one of these three--same-sex attraction, LGB identity or same-sex sexual behavior--was only consistent on the other two components 20% of the time (Laumann et al. 1994). Indeed, the fact that most of us are born into heteronormative societies means that, at least for a time, almost every same-sex-attracted individual will hold, or be assumed to hold, a straight sexual identity that contradicts his or her sexual attraction, regardless of his or her sexual behavior.
For further evidence of variation among the three components of sexual orientation, I turned to survey data. Table 1 presents population proportion estimates for the sexual behavior and identity of American adults, based on pooled responses to the 2008, 2010, and 2012 General Social Surveys (GSS), adjusted by the GSS-supplied weights for non-response. Not surprisingly, the vast majority of people, an estimated 82.8%, gave their sexual identity as "heterosexual or straight" and reported that their sexual partners in the last five years were exclusively of the opposite sex, while another 10.7% said they were straight and celibate. Though it is possible, perhaps likely, that some of these respondents have experienced same-sex attraction without acting on it or changing their sexual identity, and that some other respondents had same-sex sexual partners but were unwilling to disclose it, the General Social Survey only asks about sexual attraction when a respondent either fails to identity as heterosexual or indicates that he or she has had same-sex sexual partners. Therefore, it is not possible to estimate the true level of same-sex attraction in the population using this data.

Table 1 does reveal, however, that at least an estimated 4.0% of the population has experienced same-sex attraction, either because they identified as gay, lesbian or bisexual or because they reported having same-sex sexual partners, or both (the shaded categories in the table represent this "manifest same-sex attraction"). Furthermore, Table 1 shows that incongruence between sexual identity and sexual behavior is not uncommon; for example a number of straight-identifying respondents reported having had some same-sex sexual partners and a number of gay- or lesbian- identifying respondents reported having had sexual partners of the opposite sex. The existence of such incongruence can be understood when an individual's

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22 (95% confidence interval: 3.4% to 4.6%)  
23 It seems likely that the estimates of LGB identity and same-sex sexual behavior from this data represent the lower bounds for these categories given the likelihood that people underreport same-sex sexual experiences and overreport straight sexual identity.
sexual orientation is viewed not as single, stable characteristic, but as a cross-sectional picture of an ongoing, dynamic, "coming out" process.\textsuperscript{24}

**Models of the "Coming Out" Process**

Individuals with same-sex attraction often must consider significant, potentially life-altering, decisions about the expression of their attraction, about their sexual behavior and their sexual identity; and they may face these decisions not once, but many times, even over a lifetime. For example, a woman who feels attracted to other women might tell friends she is bisexual, but choose to have sex only with women. At another time in her life, her sexual partners may still be women exclusively, but she might decide to self-identify as a lesbian to friends, while identifying herself as straight to family members. At still another time, she might identify as a lesbian to everyone she knows, but decide to abstain from sex altogether. Though she likely remains attracted to other women throughout her life, her behavior and identity may change, and not necessarily in ways that are consistent with each other or that will follow a linear pattern over time. At any particular time, her sexual orientation or the status of her "coming out" process, might have cognitive, affective, and behavioral implications that could also affect her political attitudes.

There exist a number of theoretical models of “the coming out” process. The model cited most often in the psychological literature, the Homosexual Identity Formation model (Cass 1979), is a developmental model that proposes that sexual minority individuals progress through six stages from "identity confusion" to "identity synthesis."\textsuperscript{25} Progression through these stages,

\textsuperscript{24} It is also interesting that 1.8% of the respondents reported no sexual identity. Aside from the typical reasons for nonresponse, this might reflect a desire to conceal a non-heterosexual identity, it could represent an "asexual" sexual identity (see Prause & Graham 2007 for a useful description of asexuality), or it might be due to respondents rejecting discrete categories of sexual identity.

\textsuperscript{25} Savin-Williams (2011, 674) described the Cass model as a process through which individuals “shift from thinking gay, to doing gay, to being gay.”
Cass argued, is frequently marked by psychological tension, distress, defensiveness, and confusion, but as an individual progresses through the process, he or she increasingly comes to accept his or her sexual orientation and to integrate it with other aspects of the self. The negative psychological effects diminish and the individual is like to feel greater self-actualization, happiness, and self-esteem (Rosario et al. 2001; Halpin and Allen 2004; Johns and Probst 2004).

The Cass Model is not without its critics. Horowitz and Newcomb (2001), Diamond (2008) and Savin-Williams (2011) have criticized its stage structure, arguing that there is little evidence that the changes in an individual’s sexual orientation necessarily follow a uniform, linear sequence. They each propose that sexual orientation is more fluid, and that its variations may follow a variety paths. Nevertheless, these critics and other researchers generally find that individuals who have "integrated" their same-sex orientation are likely to have better mental well-being than those who have not. Identity integration is generally thought to be marked by congruence among the components of sexual orientation, acceptance of the one's orientation, and disclosure of one's orientation to others.

It is also this element of sexual orientation disclosure that might exercise significant influence on the political attitudes of same-sex-attracted individuals, and so I turn now to develop this theory.

The Influence of "Coming Out" on Political Attitudes

Why might the status of an individual's "coming out" have implications for political attitudes? It may be that when a same-sex-attracted individual discloses his or her sexual orientation to others--by adopting a same-sex identity, by engaging in same-sex sexual activity, or by verbally disclosing their same-sex attraction or sexual behavior to others--certain negative psychological consequences from concealing the orientation are diminished and certain positive
benefits of interpersonal contact with other same-sex-oriented individuals are enhanced. These combined effects may produce more favorable attitudes towards sexual minorities and policies that affect sexual minorities. Furthermore, these factors might affect not just the same-sex-attracted individuals who have fully integrated their sexual minority identity, but they might also influence individuals who are at other stages in the process of "coming out." A closer examination of these psychological and sociopsychological factors reveals how their effects might be influential.

**Psychological Factors.** Researchers who have studied the effects of concealing a condition or identity that is socially stigmatized, such as being gay, lesbian, or bisexual, have found that concealing a stigma can have a number of psychological consequences that are potentially relevant to the development and expression of political attitudes. In one study, Adams et al. (1996) found that men who reported not being sexually attracted to men but who experienced physical arousal when shown videotapes of sex between two men were more likely to report highly negative affect towards sexual minorities (or "homophobia") than were men whose self-reported attraction matched their arousal response. The researchers attributed this result to a psychological defense mechanism known as reaction formation, in which individuals who experience feelings or thoughts that they find disturbing may adopt attitudes or behaviors that are in opposition to the objectionable thoughts and feelings. In other words, same-sex-attracted individuals who deny their sexual attraction may also express opinions or act in ways that are particularly hostile towards sexual minorities as a psychological defense against the shame or anxiety they feel about their own sexual attraction. It is possible, however, that same-sex-

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26 Alternatively, if one rejects Cass's linear model of "coming out" (1979), then I suggest substituting the following phrase for the preceding one: "...but they might also influence individuals with any sexual minority configuration of identity, behavior, or attraction, regardless of their congruence."

27 For a useful review of reaction formation and other psychological defense mechanisms, see Baumeister, Dale, & Sommer (1998).
attracted individuals who, while not openly identifying as LGB, interact or have sex with same-sex partners, might be less prone to engage in reaction formation.

More recently, Weinstein et al. (2012) conducted a series of studies with American college students in which participants' explicit sexual orientation, measured as self-reported sexual identity, was compared to what the researchers called *implicit sexual orientation*. Implicit sexual orientation was measured using a series of reaction time tests in which participants sorted words and pictures on a computer screen according to whether they were "gay" or "straight" and whether they described the participant or others. Participants who showed "a faster association of 'me' with gay and a lower association (slower responses) of 'me' with straight" (817) were judged to have an implicit sexual minority orientation. The study found that individuals who identified as straight but who showed evidence of "gay" implicit sexual orientation were more likely than straight-identifying individuals with "straight" implicit sexual identity to express bias towards sexual minorities; they were also less likely to support pro-sexual minority policies such as legal recognition of marriage between same-sex couples.

Though both of these studies provided evidence that same-sex-attracted individuals who reject their attraction may be more hostile to sexual minorities and to policies that favor them, they also have two significant limitations: first, the independent variable in both studies was denial or concealment of a single aspect of sexual orientation, either of male same-sex sexual attraction (Adams et al. 1996) or of "gay" sexual identity (Weinstein et al. 2012); second, neither of these studies simultaneously controlled for the three components of sexual orientation, i.e.,

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28 Though Weinstein et al. conducted validity tests of this “implicit sexual orientation” measure and found correlation between the implicit orientation and implicit sexual attraction, it should be noted that the measure itself does not reference sexual attraction directly or indirectly. Participants were presented with words and symbols that meant “gay” or “straight” and reaction latency was compared for the associations between their self-perception and those words or symbols. It would also be reasonable to question the use of the word “gay” when administering the reaction time test to women since many “out” sexual minority women prefer to use the word “lesbian” to describe themselves.
sexual identity, attraction, and behavior. Essentially, both studies treated sexual orientation as dichotomous--one is either "in the closet" or "out of the closet"--but as discussed in the previous section, sexual orientation is more complex and dynamic than this. These studies cannot tell us, for example, if a same-sex-attracted individual who identifies as straight but who is willing to disclose having had same-sex sexual partners will hold the same attitudes towards sexual minorities as a same-sex-attracted individual who identifies as straight and who does not engage in same-sex sexual behavior (or who conceals any same-sex sexual behavior). It is at least plausible that a person in the first case could have more positive affect and attitudes towards sexual minorities than a person in the second case, and testing this possibility is the primary motivation for the present paper.

There is, in fact, research that suggests that concealing or disclosing information about oneself can influence one's self-evaluation as well as one's attitudes towards others. In one experimental study, individuals who were asked to keep secret an ambiguous and arbitrarily assigned measure of their "social and nonsocial intelligence" tended subsequently to rate their own score more negatively than did individuals who were encouraged to disclose their score to someone else (Fishbein and Laird 1979), suggesting that concealment of information about oneself can reinforce one's own perception that the concealed condition is undesirable.

To further examine the psychological effects of concealable stigmatized conditions, Frable et al. (1998) conducted an 11-day experience-sampling study of Harvard undergraduate students and found that participants who were gay, bulimic, or from low-income families had lower self-esteem, higher anxiety and higher levels of depression, on average, than participants without any

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29 In an experience-sampling study, participants are asked to go about their lives as usual during most of the study period, but at random or pre-determined intervals they are asked to record information about what they are doing, thinking and/or feeling at that particular moment.
stigmatized conditions or participants with stigmatized conditions that could not be concealed, such as being overweight or physically disabled. Frable et al. also found that these negative effects were weaker among participants who reported that they associated with others with the same concealable stigma; but significantly, the participants with concealable stigmas were less likely than other study participants to engage in social interactions throughout the study. These findings suggest that while concealing same-sex-attraction might cause individuals to feel more negative towards themselves and sexual minorities in general, interaction with other same-sex-attracted individuals could reverse these effects, provided that the challenge of finding other same-sex-attracted individuals can be overcome. In other words, sociological factors are also likely to play a role in determining the effect that an individual's particular sexual orientation may have on his or her political attitudes.

Sociological Factors. To further investigate the effects of sexual identity concealment and social interaction, Beals et al. (2009) conducted a study in which gay- and lesbian-identifying participants were instructed to record every instance over a two-week period when they had an opportunity to disclose their sexual orientation to someone else, and whether they disclosed their orientation or concealed it. They cited one such example: "A gay male participant reported being asked while buying flowers, 'are these for your wife?' He chose to say 'no' instead of explaining that the flowers were for his boyfriend" (873). Participants also completed questionnaires at the end of each day, which were used to measure self-esteem, feelings of depression, life satisfaction, and feelings of social support. The researchers found that on days when participants had opportunities to disclose their sexual orientation, they reported higher self-esteem and life

30 Other studies have also found that sexual minority youth report greater levels of social isolation and social anxiety (see, for example, Hetrick and Martin, 1987; Safren and Pantalone, 2006).
31 See also Pachankis (2007) for a detailed review and synthesis of the extensive literature concerning the psychological effects of possessing a concealable, stigmatized identity or condition.
satisfaction and lower depression at the end of the days when they disclosed. Furthermore, the researchers found that perceptions of social support were a significant mediator of the relationship between disclosure and mental well-being, which is to say that the psychological benefits of disclosure appeared to result from the disclosure leadings to "greater feelings of support and understanding" (876). Finally, the authors acknowledged that they could not eliminate the possibility of reverse causation, i.e., that the individuals who disclosed their sexual orientation did so on days when they already felt more positive; but they also reported that the increase in perceived social support resulting from aggregated disclosures over the two-week period was still significantly associated with positive mental well-being in a post-survey administered two months later.

It seems, then, that the social isolation of individuals who conceal their sexual orientation can prevent them from receiving social support and positive feedback that might lead to a more positive view of themselves and of other sexual minorities; however, a same-sex-attracted individual whose "coming out" process includes meeting, socializing with, or having sex with other sexual minorities may come to develop more positive evaluations of and affect towards sexual minorities. He or she may also come to adopt the "social identity" of the groups with whom he or she interacts.32 That social identity can convey collectively-negotiated meanings about membership in the group, including the group's norms, the relative status of sexual minorities in society, the group's shared cognitive perspectives and ideologies, or political objectives and activities shared by group members (Tajfel 1981; Kramer and Brewer 1984; Fowler and Kam

32 It’s important to note here that "social identification" with sexual minorities does not necessarily mean that the individual openly identifies as a sexual minority. Social identification requires that the individual mentally locates himself or herself as a member of a social group, but self-location and even affiliation can occur without a corresponding change in the way one describes one’s sexual identity to others. For example, the sexual minority community is sometimes identified as the “LGBTQQ” community, where the second “Q” stands for “questioning.” A same-sex-attracted individual may feel a social identification and affiliation with the LGBTQQQ community without necessarily telling others that he or she is gay or lesbian.
Social identification can also cause the individual to show bias towards members of the group an individual identifies with, their “ingroup,” and against the “outgroup.” Such ingroup favoritism and outgroup derogation have been found to influence political attitudes on a host of group-related issues (see, for example, Sanchez 2006; Swim 1999), including attitudes towards AIDS policy and sexual minorities (Price and Hsu 1992).

Such effects among sexual minorities would be consistent with previous studies of the sources of broad public attitudes towards sexual minorities. Researchers have found evidence that association with individuals who identify as gay or lesbian can reduce negative stereotypes and increase support for sexual minority rights in the heterosexual population (Herek and Glunt 1993), and that positive affect for sexual minorities is associated with greater support for sexual minority rights in the broad population (Strand 1998; Wilcox and Wolpert 2000; Wilcox and Norrander 2002; Brewer 2003).

The consequences of reaction formation, social isolation, and sexual orientation concealment, therefore, all seem likely to reduce support for sexual minority rights; and an individual who experiences same-sex attraction, but who denies that attraction, identifies as straight, and who has sex only with opposite-sex partners might well be opposed to policies that favor sexual minorities, consistent with the findings of Weinstein et al. (2012) and others.

Even if the “coming out” process is not the linear set of stages that Cass (1979) described, but is instead a fluid, non-linear, dynamic set of configurations of attraction, behavior, and identity, then these factors might still be influential for any of these configurations. For example, same-sex sexual behavior, regardless of sexual identity, inevitably brings a same-sex-attracted individual into contact with others with similar attraction. Regardless of whether the individual or his or her sexual partners identifies as gay, lesbian, bisexual or straight, positive social (including, but not
limited to, sexual) interaction with others who are same-sex-attracted might have the following effects on the individual: reduction in stereotypical views of sexual minorities; provision of social support and feedback that can improve self-evaluation and affect towards sexual minorities; increased social identification with sexual minority groups; and improved support for the political rights that many sexual minority groups are pursuing. In other words, a same-sex-attracted individual who engages in any same-sex sexual behavior, affiliation, or identity disclosure might, as a result, become more supportive of sexual minority rights, compared to a same-sex-attracted individual who conceals or denies his or her attraction, identifies as straight, and never engages in same-sex sexual behavior or social affiliation.

My preliminary analysis of data from the 2006 General Social Survey revealed evidence to support the claim that same-sex sexual behavior may indeed be correlated with greater sexual minority social interaction and more positive regard for sexual minorities. Though the GSS did not begin asking individuals for their sexual identity until 2008, they have asked about the gender of respondents’ sexual partners since 1989. In 2006, they also asked respondents with how many "gay men or women" they were acquainted, and how many of the people that they trusted were "gay men or women." As shown in Figure 1, respondents whose sexual partners in the previous five years were partly or exclusively same-sex were much more likely to say that they had two or more gay or lesbian acquaintances than were respondents with opposite-sex sexual partners (two-tailed difference of proportions t-test, p-value = 0.0004). Furthermore, as can be seen in Figure 2, respondents with same-sex sexual partners were much more likely to say that they

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33 The prompt for the first item was: “I'm going to ask you some questions about all the people that you are acquainted with, meaning that you know their name and would stop and talk at least for a moment if you ran into the person on the street or in a shopping mall...How many are you pretty certain are gay men or women?” The prompt for the second item was: “Now I'm going to ask you some questions about people that you trust, for example good friends, people you discuss important matters with, or trust for advice, or trust with money....How many are gay men or women?”
trusted two or more gay or lesbian individuals (two-tailed difference of proportions t-test, p-value = 0.0038). Unfortunately, these questions have not been asked since 2006, making it impossible to include them in the full study, to whose data and methods I now turn.

**Hypotheses**

In order to consider the implications for political attitudes of sexual minorities who occupy different positions on the "coming out" spectrum, I proposed a number of hypotheses about the impact of sexual orientation on attitudes towards same-sex marriage. While it's plausible that attitudes towards other sexual minority rights may have different correlates, same-sex marriage is an issue that was particularly politically salient during the period of the study (and continues to be), and it is also an issue about which sexual minorities themselves have sometimes been ambivalent (see, for example, Egan and Sherrill 2005). The choice of dependent variable was also constrained due to the limited number of appropriate measures in the General Social Survey.

Given that individuals who identified as gay, lesbian, or bisexual would be most likely to materially benefit from the legal recognition of same-sex relationships, I expected to find that LGB-identifying individuals would be the most supportive of same-sex marriage. Furthermore, since I found evidence of a gender divide on this issue among sexual minorities in Part I of this project, and since women in the broad population have frequently been found to be more supportive of sexual minority rights than men, I considered it likely that sex would also divide the LGB-identifying population. Therefore, I proposed the following hypotheses:

\[ H_1: \text{LGB-identifiers will be more supportive of same-sex marriage than individuals who don't identify as lesbian, gay, or bisexual, controlling for other variables.} \]

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34 Though it was not possible to control for sexual identity here, there is no theoretical reason to believe that the sexual orientation of the 2006 respondents was distributed differently than the sexual orientation of the 2008 and 2010 respondents shown in Table 1; and so I believe it is likely that the 2006 respondents with same-sex sexual partners would have had similar variations in their sexual identity.
Women who identify as lesbian or bisexual will be more supportive of same-sex marriage than men who identify as gay or bisexual, controlling for other variables.

Turning to the study of the "downlow" population, even if some individuals with same-sex attraction do not identify as gay, lesbian, or bisexual, it is still possible that engaging in same-sex sexual behavior may reduce their negative affect towards and stereotypical cognitions about sexual minorities. By itself then, same-sex sexual behavior might be expected to increase support for same-sex marriage, even after controlling for sexual identity. It is also likely, however, that some same-sex-attracted straight-identifying individuals might have same-sex encounters "on the downlow," because they are married to an opposite-sex partner. Married "downlow" individuals might realistically face greater psychic and material risks than "downlow" singles if their same-sex behavior is discovered, and so they might experience greater anxiety and negative affect resulting from concealing their same-sex attraction. In addition, marriage has been found to be negatively correlated with support for same-sex marriage in the broad population (Lofton and Haider-Markel 2007), and so it is possible that the effect of "downlow" is interacted with the effect of being married. These factors led to two additional hypotheses:

**H3:** Straight-identifying individuals with same-sex sexual partners (i.e., individuals that are "downlow") will be less opposed to same-sex marriage than will straight-identifiers whose sexual partners are of the opposite sex only, controlling for other variables.

**H4:** Married "downlow" individuals will be less supportive of same-sex marriage than unmarried "downlow" individuals, controlling for other variables.

Finally, the same factors that affect attitudes towards same-sex marriage are expected to also influence general attitudes towards the civil rights of sexual minorities in much the same way,
except that the gender gap on same-sex marriage (found in Part I) may be unique to that issue alone due to its particular salience among women. Therefore, LGB-identifiers and "downlow" individuals are both expected to be more tolerant of sexual minorities, and no gender gap is predicted on this measure. Using the GSS measures of political tolerance towards "homosexuals," it is predicted that:

\[ H_5: \text{LGB-identifiers and "downlow" individuals will show higher levels of political tolerance than straight-identifying "non-downlow" individuals, controlling for other variables.} \]

Taken together, these five hypotheses represent the testable implications of this study's guiding theory; that is, the different configurations of sexual attraction, identity, and behavior that collectively constitute sexual orientation may influence the attitudes of same-sex-attracted individuals towards sexual minorities and sexual minority rights.

**Data and Methods**

In this study, I examined data from the General Social Survey (GSS). Though the General Social Survey has asked about the gender of respondents’ sexual partners since 1988, it only added a sexual identity question in 2008; therefore, I analyzed responses from the 2008, 2010, and 2012 surveys. Responses were pooled in order to increase statistical power. Of the 5,273 respondents in this sample who responded to a sexual identity item, 5,183 also answered...
questions about their sexual behavior in the preceding five years.\textsuperscript{36} For the regression analysis required in the tests of H1 through H4, dropping observations with missing covariate data produced a useable sample of 3,223 respondents.\textsuperscript{37} Of these, 120 respondents (3.7\%) identified themselves as bisexual, gay or lesbian, and 121 respondents reported having same-sex sexual partners during the preceding 5 years. All estimates that follow were calculated using the sample non-response weights provided by the General Social Survey.

**Dependent Variables**

To assess attitudes about the civil rights of sexual minorities, I selected a GSS item measuring support for same-sex marriage as the primary dependent variable. Respondents were asked, "Do you agree or disagree [that] homosexual couples should have the right to marry one another?" and asked to respond using a five-level Likert scale ranging from “strongly disagree” to “strongly agree.” These responses were coded as a dichotomous indicator where "agree" or "strongly agree" were coded "0" and "strongly disagree," "disagree," or "neither" were coded "1".\textsuperscript{38} On this basis of this sample, I estimated that 42.6\% of the population would have responded "agree/strongly agree" (95\% confidence interval: 40.8\% to 44.4\%).

Of policies that impact sexual minorities, the General Social Survey has only measured attitudes towards same-sex marriage since they began measuring sexual identity in 2008. It is reasonable to wonder whether LGB-identity or "downlow" sexual orientation might have different influence on attitudes towards other policies such as protection against employment

\textsuperscript{36} There was some missing data on both the sexual identity and sexual behavior items because these items were found on the GSS Self-Administered Questionnaire, which respondents are allowed to omit. For this analysis, these respondents are assumed to be missing-at-random and are excluded from the study.

\textsuperscript{37} There was no evidence that the primary variable of interest, the combination of sexual identity and sexual behavior, differed between the dropped and the included observations (Pearson chi-square test, p-value = 0.283).

\textsuperscript{38} Though the GSS has measured attitudes about other policies relevant to the civil rights of sexual minorities in previous years, the same-sex marriage item was the only relevant question asked in these survey waves. Future tests of this analysis for attitudes about other relevant policies would be useful.
discrimination on the basis of sexual orientation, allowing same-sex couples to adopt, or supporting the repeal of "Don't Ask, Don't Tell," the policy that prohibited sexual minorities from serving openly in the U.S. Military until its repeal took effect in 2011. Proponents and opponents of same-sex marriage alike have argued that marriage has a particularly important symbolic place in society, and that its significance extends beyond the economic and legal benefits that it conveys. Since socially significant symbols can exert considerable influence on political attitudes (Sears et al. 1980), the absence of other policy measures in the GSS makes it impossible to rule out the possibility that "downlow" individuals may hold different attitudes about other specific policies. However, I would argue that if marriage carries especially strong traditional symbolic value, then attitudes towards same-sex marriage should present a particularly hard case for the theory that "downlow" individuals are not necessarily more opposed to sexual minority rights. Same-sex attracted individuals who have not adopted a minority sexual identity may be supportive of other, less-symbolic, civil rights, such as employment protection or even adoption, but they may still be very conservative with respect to marriage. If they are not, then their attitudes towards other less-symbolic policies might be similarly supportive.

Furthermore, though the GSS does not ask about other specific policies, it does include three items measuring political tolerance of male "homosexuals," offering an additional dependent variable for study. I constructed an additive index of "homosexual" political tolerance using three GSS items that asked respondents whether a man who "admits that he is a homosexual" should be allowed to teach in a college, give a public speech, or place a book he wrote favoring homosexuality in the public library; each response was coded "1" if tolerant of the action, "0" if

39 The public library item in the GSS is awkwardly worded compared to the other two items in that it asks whether the respondent “favors removing” the book (“favoring” removal is the intolerant response), and this item does not correlate with the other two items as strongly as they do with each other. Since this is a potential source of
not. When added, the 0-to-3 range of the index was rescaled from 0 to 1. The majority of all respondents selected the tolerant option for all three items. While political tolerance is not a specific policy, it is intended to measure an individual's support for general civil rights, even for members of groups which they dislike, and so it seemed reasonable to expect that "downlow" individuals' attitudes towards political tolerance would follow a pattern similar to their attitudes about same-sex marriage.

In order to evaluate whether sexual attraction, identity, and behavior are influential on attitudes towards policies that are not related to sexual minorities, I also selected a third dependent variable. The item, intended to measure whether the respondent feels the government should act to improve the standard of living of the poor,\textsuperscript{40} was recoded to a dichotomous indicator where a response that preferred government action was coded "1." An estimated 29.5% of the population supported government action to improve the standard of living of the poor (95% confidence interval: 27.8% to 31.2%). I did not expect to find that the sexual orientation variables would be useful predictors in this case.

**Independent Variables**

The primary independent variables of interest in this study were measures of sexual identity and sexual behavior, an interaction of sexual identity with marriage, and a number of control variables, as described below.

**Sexual Identity.** Responses to a three-category GSS item served to operationalize sexual identity. As can be seen in Table 1, an estimated 95.3% of the adult population identified as heterosexual

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\textsuperscript{40} The original item was, “Some people think that the government in Washington should do everything possible to improve the standard of living of all poor Americans...Other people think it is not the government's responsibility, and that each person should take care of himself.” Respondents were asked to place themselves on a five-point scale ranging between these two positions.
or straight, 1.6% identified as bisexual, 1.4% identified as homosexual, gay or lesbian, and 1.7% said they didn't know or refused to answer. Although the gay, lesbian, and bisexual populations are relatively small, which makes any probability-based sampling of sexual minorities a challenge, these estimated proportions are not inconsistent with those of other recent studies: Gallup (2012) analyzed over 120,000 daily tracking interviews and estimated that 3.4% of Americans identified as lesbian, gay, bisexual or transgender (Gallup did not distinguish transgender from the other categories) and Gates (2011), analyzing the results of five different population-based surveys, estimated the American gay, lesbian, and bisexual adult population at 3.5%, split approximately evenly between bisexual and gay/lesbian identifiers.

Next, although bisexual-identifiers may well hold different attitudes towards other sexual minorities than do gay- or lesbian-identifiers, the small sample size in this study precluded effective analysis of any such differences, and so a combined sexual identity indicator was also created; it was coded “1” for individuals who identified themselves as gay, lesbian or bisexual or “0” for individuals who identified as straight or who said they didn't know or refused to answer. This indicator was interacted with an indicator for respondent's sex (coded "1" for female) in order to evaluate whether the effect of LGB identity varied for men and for women.41

Sexual Behavior. To operationalize sexual behavior, each respondent’s gender was compared with his or her response to items that asked the number and gender of the respondent’s sexual partners in the last five years.42 Responses were coded to reflect having partners only of the opposite sex, having partners of both the same and opposite sex, only having partners of the same

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41 Though even items as seemingly straight-forward as the respondent’s sex are potential sources of measurement error, a recent analysis of the reliability of General Social Survey items over a three-wave panel from 2006 to 2010 reported that responses to the “factual” demographic items, including sex, were extremely consistent, with polychoric correlations between waves very close to the theoretical maximum of 1.0 (Hout and Hastings 2012).

42 Five-year sexual behavior was missing for a number of respondents, but if these respondents reported having both same- and opposite-sex partners in the last year, this value was used to impute sexual behavior. This imputation added only two valid cases.
sex, or having no sexual partners. Based on this sample, an estimated 83.6% of the population had sex only with opposite-sex partners, 1.3% had both same- and opposite-sex partners, 1.8% had same-sex partners only, 11.1% were celibate, and 2.1% said they didn't know or refused to answer.

**Structuring Identity and Behavior.** Cross-tabulation of the sexual identity and sexual behavior items produced twenty possible combinations of identity and behavior, as shown in Table 1. Since some of these categories contained very few observations, it was necessary to consider how best to condense these categories for both statistical power and meaningful theorizing.

First, one group of respondents of particular interest for this study were the respondents that identified as straight, but who had same-sex sexual partners. Though these respondents--referred to in this study as "downlow," and corresponding to the two shaded boxes on the top row of Table 1--are estimated to make up only 1% of the total population, they make up 25% of the respondents that manifestly have experienced same-sex attraction, so it is important to evaluate whether their political attitudes regarding the rights of sexual minorities are particularly hostile or more supportive. Therefore, an indicator variable was created and coded "1" for "downlow" respondents. This initial operationalization identified 57 "downlow" respondents.

However, given the risk that such a small sample might exaggerate the influence of even small errors in measurement of sexual behavior, these respondents' answers to a separate set of questions about their sexual behavior since age 18 were also used to validate the initial coding. In addition to the previous questions, respondents were asked how many male and how many female sexual partners they had had since age 18. Respondents who were coded “downlow”

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43 Though some “downlow” respondents had both same- and opposite-sex sexual partners, while others had same-sex partners exclusively, further subdivision of this small category did not seem theoretically warranted for the current study.
based on their reported sexual behavior in the preceding year, but who reported having no sexual partners of the same sex since age 18 were recoded as not “downlow.” This procedure further reduced the sample of "downlow" respondents to 45. Though this may have screened out some respondents who were actually “downlow,” this decision was taken to reduce the possibility of incorrectly categorizing respondents as “downlow” as a result of a mistake in the answering or coding of the five-year sexual behavior item alone. I judged this to be the most conservative operationalization approach.44

Though I expected that having same-sex sexual partners would tend to increase support for sexual minority rights, any such effect might plausibly be negated by the greater risks of discovery faced by married individuals. A married individual who is having same-sex sexual encounters may be doing so without the knowledge or consent of his or her spouse, and should the extramarital sexual activity be discovered, the consequences may be severe. Though the data doesn't indicate whether the single "downlow" individuals have unmarried partners, boyfriends or girlfriends, it seems reasonable to suppose that the risks to them should another person learn of their same-sex sexual behavior are less than for married individuals on average, and therefore married individuals may be feel more fearful and anxious about their same-sex behavior, feelings which could transfer into generalized negative affect for sexual minorities. Therefore, the "downlow" indicator was also interacted with an indicator for being married in these models.

A second group of interest was the respondents who identified as lesbian, gay, or bisexual, regardless of their responses to the sexual behavior items; an "LGB identity" indicator was coded for this category. Though this group showed considerable diversity on the sexual behavior item, I

44 Furthermore, while most GSS surveys were conducted in face-to-face interviews, about 12% were conducted over the phone. There was no difference in the distribution of “downlow” respondents between in-person and over-the-phone interviews (chi-square test of homogeneity, p-value = 0.810.)
chose not to further subset this category on that basis. There were a couple of reasons for this decision. First, while a large proportion of the sample reported having no sexual partners in the previous five years, there was no evidence that celibacy among LGB-identifying individuals was distributed differently than among non-LGB-identifiers and so I elected not to control for celibacy in the regression analyses. Second, I could envision no theoretical justification for distinguishing sexual behavior among sexually active LGB-identifiers. Bisexual-identifiers who have had only opposite-sex sexual partners are not necessarily displaying an identity-behavior discrepancy like that of the “downlow” population since identifying oneself as bisexual implies that one might have sex with both same-sex and opposite-sex partners, regardless of one’s actual sexual behavior. On the other hand, it is difficult to imagine why an individual who is sexually attracted only to the opposite sex would choose to identify as bisexual given the risk of social stigma that the identity might evoke. Therefore, I do not consider bisexual identifiers with exclusively opposite-sexed partners to be analogous to straight identifiers with same-sexed partners, or to warrant a separate statistical control.

Finally, a third group of potential interest were the respondents who did not answer either or both of the sexual identity and sexual behavior items, an estimated 2.1% of the population as shown in Table 1. There are, of course, a number of reasons why respondents might choose not to answer these questions, including the possibility that some same-sex-attracted individuals may not wish to disclose their attraction, identity or same-sex behavior; and since sexual orientation disclosure is a central element of this study, I sought to retain these participants in the sample where appropriate. A number of these respondents answered the sexual identity item, but refused the sexual behavior item, and so it was still possible to code them appropriately ("0" or "1") for

45 Chi-square test of homogeneity, p-value = 0.170.
46 I did investigate the phenomenon of celibacy among sexual minorities in Part III of this project.
the "LGB identity" indicator. Of the respondents who did not answer the sexual identity question, but who did answer the sexual behavior question, only one reported having any same-sex sexual partners, and so the others were coded "0" for the "downlow" indicator. Finally, the respondents who did not answer either of the questions were dropped from the regression analysis.

The twenty categories of sexual identity and sexual behavior shown in Table 1 were thus reduced to three categories of primary interest in this study: 1) individuals who identified as straight and who had only opposite-sex partners, or were celibate, or who did not answer the sexual behavior item; 2) individuals who identified as straight, but whose sex partners were sometimes or exclusively of the same sex (the “downlow” category); and 3) lesbian-, gay-, or bisexual- (LGB) identifying individuals who were sexually active, celibate, or did not answer the sexual behavior item.

Additional Variables

Indicator controls for married, non-white race, and female sex, were created. Continuous measures of age, and years of education were also created. A control for logged family income was considered, but omitted from the model as it significantly increased multicollinearity among the independent variables, but was never statistically significant in any estimations.

Conservative religious beliefs have been among the most consistent predictors of attitudes towards same-sex marriage in previous studies (Wilcox and Wolpert 2000; Wilcox and Norrander 2002; Brewer 2003), and it is also likely that religious beliefs may influence a same-sex-attracted individual's position on the "coming out" spectrum, a possibility that I explored.

47 Individuals who reported being either married or widowed were coded as married. Also, there were a number of married individuals in this sample who identified themselves as bisexual, gay, or lesbian, but it was not possible to determine whether they were married to a same-sex or opposite-sex partner. Given that this data was collected in 2008 and 2010, however, the probability that any sampled individual would have been legally married to a same-sex partner was quite low since only one state in 2008 and five states in 2010 allowed same-sex marriage. It is possible, of course, that individuals in a same-sex relationship might identify themselves as married whether or not the state recognized the relationship, but this data did not reveal that distinction.
further in Part III of this project. In order to control for the potential confounding influence of religious belief, a three-level GSS measure of the respondent’s beliefs about the nature of the Bible was coded into two mutually-exclusive, dichotomous indicators: one corresponding to "the Bible is an ancient book of fables, legends, history, and moral precepts recorded by men" and the second corresponding to "the Bible is the actual word of God and is to be taken literally, word for word." The omitted category is "the Bible is the inspired word of God but not everything in it should be taken literally, word for word."

In addition, two mutually exclusive, dichotomous indicators were created to control for political ideology, also a potential confounding variable (Lewis and Rogers 1999; Wilcox and Norrander 2002; Brewer 2003). The first indicator corresponded to "extremely liberal," "liberal," or "slightly liberal," and the second corresponded to "extremely conservative," "conservative," or "slightly conservative," while the omitted category is "moderate." Since the public positions of many political elites towards same-sex marriage in both parties have undergone considerable change during this period, I chose this control for ideology rather than a control for party identification.

**On Measurement Error**

Given the relatively small subsample size for the "downlow" category, the influence of even small errors in measurement of sex, sexual identity and sexual behavior, whether due to coder error or the unwillingness or inability of respondents to answer accurately, could have outsized influence on the results of this analysis. While it is impossible to eliminate this possibility, in this section, I describe factors that I believe minimize these risks.

In order to reduce the risk that social desirability bias might make respondents unwilling to answer the sexual behavior items honestly, the General Social Survey asked those questions in a
self-administered, sealed questionnaire, rather than via the human interviewer, a procedure that has been found to improve the validity of sexual behavior survey measures (Fenton et al. 2001). Furthermore, two measurement validity studies of the sexual behavior items in the GSS have found that the self-administered sexual behavior questionnaire had very high completion rates, and that non-response, when it occurred, was not correlated with sexual behavior (heterosexual or homosexual), sexual attitudes, religious fundamentalism, or marital infidelity, though response was somewhat lower among women (Smith 1988; Smith 1992).

Even items as seemingly straight-forward as the respondent's sex are potential sources of measurement error, but a recent analysis of the reliability of General Social Survey items over a three-wave panel from 2006 to 2010 reported that responses to the “factual” demographic items, including sex, were extremely consistent, with polychoric correlations between waves very close to the theoretical maximum of 1.0 (Hout and Hastings 2012), indicating extremely high consistency in these measures.

With respect to the measure of sexual behavior and the identification of the "downlow" respondents, the validation procedure described above in which the responses to two different sets of questions were compared should have reduced the incidence of random measurement error. As for sexual identity, the proportions that identified as gay, lesbian, or bisexual are similar to estimated proportions from other recent studies (Gates 2011; Gallup 2012).

While it would be desirable to be able to compare the estimated proportions from this study against other research, almost all public health surveys fail to measure sexual identity and there are also very few that have attempted to study women who have sex with women, facts which I
confirmed with Dr. Randall Sell at Drexel University's School of Public Health. While there are a number of public health studies that have attempted to quantify the proportion of men who have had male sexual partners, I could find only one population-based study that also measured the sexual identity of the respondents. Pathela et al. (2006) examined the 2003 Community Health Survey of a random sample of men in New York City and found that nearly 1 in 10 straight-identifying men surveyed reported having sex with at least one male partner in the preceding year. That proportion is much higher than the proportion found in this study using GSS data, but the Community Health Survey only examined men living in New York City who could be reached by telephone, a population that is highly unlikely to be representative of the general population or even of the population in other U.S. Cities. Furthermore, Pathela et al. (2006) noted that the sexual identity question was asked relatively early in the survey and suggested the possibility that measurement error could have inflated the straight-identifying proportion: "it is possible that if identity were ascertained later, when a greater rapport had been established with the interviewer, more men who have sex with men would have self-identified as gay" (422).

Absent any other estimates of the "downlow" population against which to compare, the estimate from the General Social Survey appears to be the most representative available. Furthermore, there is reason to believe that GSS estimates of sexual behavior alone are reasonably accurate: a recent public health study examined a quantitative meta-analysis of 7 population-based surveys, including the GSS from 1988 to 2008 (Purcell et al. 2012). Their analysis showed the GSS estimates to be very close to the combined estimates from all seven

48 Randall Sell, Associate Professor of Public Health, Drexel University, personal communication with the author, June 8, 2013.
49 Personal communications (June 8, 2013) with Dr. Ken Sherrill of Hunter College, and Dr. Gregory Herek of the University of California Davis, also failed to identify any other studies for comparison.
surveys: in the preceding five years, the GSS data estimated 3.8% of men had same-sex sexual partners compared to the overall estimate of 3.9%; and in the preceding one year, the GSS data estimated 3.2% compared to the overall estimate of 2.9%.

Overall, while variability is always inherent in survey measures, I believe that the research cited above supports the view that the relevant GSS measures were acceptable. Finally, it is important to note that any social desirability bias would tend to reduce the reporting of non-normative sexual identity and sexual behavior, but that in this study, I theorized that intentional disclosure of non-normative sexual identity or sexual behavior is the key causal mechanism by which same-sex-attracted individuals may develop more positive affect for sexual minorities and greater support for policies that favor them, even if they do not identify themselves as gay, lesbian, or bisexual. Therefore, if social desirability bias prevents some straight-identifying respondents from accurately reporting same-sex sexual behavior, then I would argue that the mechanism of disclosure is not active for those respondents, and so they should legitimately and correctly not be categorized with the “downlow” respondents who did disclose their sexual behavior.

**Results and Discussion**

To evaluate the joint influence of sexual identity and sexual behavior on support for same-sex marriage, as described in hypotheses $H_1$ through $H_4$ above, I regressed a series of regression models (Models 1, 2, 3, and 5 used logit regression while Model 4 used OLS), the estimates from which are presented in Table 2. Model 1 included controls only for LGB identity, sex (female), being "downlow," being married, being of non-white race, age and years of education. Model 2 added the interactions of LGB identity with sex and "downlow" with being married. Model 3 added controls for political ideology and Bible beliefs (the possibility that these may sometimes
be causally prior to sexual identity and behavior is explored in Part III of this project). As the substantive results were relatively resistant to model specification, the specific results that follow were all estimated using the Model 3 specification unless otherwise noted.

While support for same-sex marriage was the primary dependent variable of interest in this study, I also estimated Model 4, which regressed the political tolerance index score on the independent variables from Model 3, and Model 5, which regressed support for government aid to improve the standard of living of poor Americans on the Model 3 independent variables.

Being female was a consistently useful predictor of same-sex marriage support with an average marginal effect\(^{50}\) of a positive 10.6%.\(^{51}\) The average probability of a man supporting same-sex marriage was 41%, while the average probability for a woman was 51.7%.\(^{52}\) This effect also appeared to be interacted with LGB identity, a finding that I will return to shortly. Being female was also a significant predictor of greater political tolerance but was not correlated with attitudes towards government aid to the poor.

Race was also a significant predictor of marriage, though not especially influential, with white individuals 8% more likely to support same-sex marriage than nonwhite individuals.\(^{53}\) Age was significant: young people were more likely to support same-sex marriage, on average, but after age 33, they were more likely to oppose it. Education was also significant, but only individuals with 18 or more years of education, on average, were more likely to support same-sex marriage

\[^{50}\] Average marginal effects (AMEs) are estimated by calculating a marginal effect for each observation in the sample (using each respondent’s covariate values) and then averaging the calculated marginal effects. All predictive margin and marginal effect estimates in this section are calculated using the Model 3 estimates and the average marginal effects, unless otherwise specified.\[^{51}\] 95% confidence interval: 7.1% to 14.1% \[^{52}\] For men, 95% confidence interval: 38.6% to 43.7%. For women, 95% confidence interval: 49.4% to 54.1%.\[^{53}\] 95% confidence interval: 3.5% to 12.3%.
than to oppose it.\textsuperscript{54} The effects of these variables on political tolerance were substantively similar. With regards to Model 5, nonwhite individuals were more likely to support government aid to the poor, while age and education were negatively correlated with the dependent variable.

Political ideology and religious belief were also statistically significant predictors of same-sex marriage attitudes, and in expected directions. The probability that someone with liberal political views supported marriage was 66.5\% while the probability of support for a person with conservative ideology was only 29.5\%.\textsuperscript{55} Predictive margins for religious belief were remarkably similar: the average probability of same-sex marriage support for an individual who believed that the Bible is a book of fables was 66.4\% and the probability of support for someone who believed that the Bible is the literal word of God was 29.9\%.\textsuperscript{56} As can be seen in Figure 3, the additive effects of these factors were particularly notable, ranging from an 84.6\% probability of support for an individual with liberal ideology and religious belief to 14.4\% probability for an individual with conservative ideology and religious belief.\textsuperscript{57} The estimated effects of these factors for LGB-identifying individuals were in the same direction as for non-LGB-identifiers, though at somewhat smaller magnitudes, suggesting that political ideology and religious belief also exert significant influence on sexual minorities. This is a subject I explored further in Part III of this project. With respect to the political tolerance index, conservative ideology exerted a significant, but relatively weak, negative influence, but individuals who believe the Bible is the literal word of God were significantly less politically tolerant, regardless of political ideology. Finally, while

\textsuperscript{54} The 95\% confidence interval of the average predictive margin for individuals at age 33 was 50.1\% to 54.8\%. The 95\% confidence interval of the average predictive margin for individuals with 18 years of education was 50.3\% to 56.5\%.

\textsuperscript{55} 95\% confidence intervals, respectively: 63.1\% to 69.8\%; 26.4\% to 32.6\%.

\textsuperscript{56} 95\% confidence intervals, respectively: 62.3\% to 70.5\%; 26.4\% to 33.5\%.

\textsuperscript{57} 95\% confidence intervals, respectively: 81.5\% to 87.6\%; 11.6\% to 17.3\%.
political ideology was a statistically significant predictor of attitudes about government aid to the poor in Model 5, religious belief was not.

I turn next to this study's hypotheses and variables of interest. First, the effect of identifying as lesbian, gay, or bisexual was positive and significant in Models 1, 2, and Model 3, and LGB identity's effect appeared to be interacted with sex in Model 3. I focus on Model 3 in the remaining analysis since the predictors of political tolerance followed the same substantive pattern, though generally at smaller magnitudes, and since these variables were not significant predictors of attitudes towards government acting to improve the standard of living of the poor.

In post-estimation analysis of the Model 3 estimates, the average marginal effect of LGB identity was to increase the probability of support for same-sex marriage by 21.4%, a result that is consistent with $H_1$. As can be seen in Figure 4, however, this effect was substantially weaker for men who identified as gay or bisexual than for women who identified as lesbian or bisexual. The average probability that a gay- or bisexual-identified man supported same-sex marriage was 52.5%, versus 40.8% probability for a man who identified as straight or who didn't answer the sexual identity question (Wald difference test, p-value = 0.078). A lesbian- or bisexual-identifying woman had an estimated average probability of support of 80.8% while a straight- (or non-) identifying woman's estimated probability of support was 51.1% (Wald difference test, p-value < 0.0001). In other words, while LGB identity was associated with greater support for same-sex marriage among both men and women, the effect for men was much weaker, and given that men were less likely than women to support same-sex marriage irrespective of sexual identity, the estimated positive influence of LGB identity on men was not large enough to

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58 For Model 2, a Wald test of significance for the “LGB identity” coefficient resulted in a p-value < 0.0001. For Model 3, a joint Wald test of significance resulted in a p-value = 0.0002. The Wald test of the coefficient for the “LGB identity X female” interaction term in Model 3 resulted in a p-value of 0.0535.
59 95% confidence interval: 12.3% to 30.6%.
conclude that it would, by itself, be likely to produce an average probability of support that was greater than 50%. These estimates support the prediction of $H_2$ that LGB identity's effect on same-sex marriage support is moderated by sex, and suggests that the gender gap of support for same-sex marriage that has previously been reported among the broad population also exists among sexual minorities.

The estimated effects of marital status, being "downlow," and their interaction served as the tests of $H_3$ and $H_4$. Being married was a statistically significant predictor in all three models, though in Model 3, its influence on support for same-sex marriage was only statistically significant for "downlow" respondents. Furthermore, the estimated average marginal effect of marriage in the three models is quite modest.

Consistent with the expectation that "downlow" individuals are not necessarily more hostile to sexual minority rights than other straight-identifiers, the estimated effect of being "downlow" is only somewhat significant in both Models 2 and 3, but it is in a positive direction. This result supports $H_3$ as well as the overall theory that if a same-sex-attracted individual's "coming out" stage or status includes any same-sex sexual behavior, affiliation, or disclosure, even if identity and behavior are incongruent, it may increase support for the rights of sexual minorities. Using the estimates from Model 2, the average marginal effect of being "downlow" for straight-identifying unmarried individuals is to increase the probability of same-sex marriage support by 13.2%. Their average predicted probability of supporting same-sex marriage is 59.9%.

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60 The 95% confidence interval of the average predictive margin for LGB-identifying men in Figure 4 was 39.7% to 65.4%.
61 In Model 2, the Wald test of the coefficient for “downlow” produced a two-tailed p-value of 0.0688. In Model 3, the joint Wald test resulted in a two-tailed p-value of 0.0960. In both cases, the one-tailed test of the coefficient produced p-values < 0.05.
62 95% confidence intervals: AME is −0.8% to 27.2%, and average predicted probability is 46.0% to 73.8%. 90% confidence intervals: AME is 1.5% to 24.9%, and 48.2% to 71.5%, respectively.
With regards to $H_4$, the evidence from Model 3 supports the hypothesis as the coefficient on the interaction between the "downlow" and married indicators in Model 3 was statistically significant; however, this can be misleading as the standard errors of coefficient estimates in an interacted model are known to vary for each of the values of the interacted variables themselves (Kam and Franzese 2007). In fact, post-estimation from Model 3 further supported the theory that the effect of "downlow" is moderated by marital status. This can easily be seen in Figure 5. The average marginal effect on support for same-sex marriage for being "downlow" among straight-identifying married individuals is -8.3%, and the average predicted probability of support among these individuals is 37.3%, with wide confidence intervals for each of these estimates; but for unmarried, straight-identifying individuals, the average marginal effect of being "downlow" is to increase the probability of same-sex marriage support by 30.7%, and average predicted probability that these individuals supported same-sex marriage is 78.9%. The suggests that the positive influence of "downlow" status may be counteracted by the negative influence of being married.

As the wide confidence intervals for the "downlow" estimates imply, while single, "downlow" individuals were statistically more likely to support same-sex marriage than their non-downlow straight-identifying counterparts, it was not possible to conclude that the predictive margins for married, "downlow" individuals are statistically different from those of single, "downlow" individuals (Wald difference test, p-value = 0.1516). The uncertainty of these results, however, may largely be due to the small sample of "downlow" individuals (of 34 "downlow" respondents, only 9 were married) and do not, in any way, contradict the primary finding that "downlow" individuals are no more hostile to same-sex marriage than are other individuals who identify as

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63 95% confidence intervals: AME is −40.9% to 24.3%, and average predicted probability is 4.8% to 69.8%.
64 95% confidence intervals: 11.3% to 50.0%, and 60.0% to 98.1%, respectively.
straight. Stronger conclusions with regards to the theorized interaction between "downlow" and marital status must await additional observations.

Finally, the estimated effects of sexual identity and sexual behavior on attitudes towards general political tolerance (at least towards homosexual males), as can be seen in Figures 3, 4, and 5, follow patterns that are similar to those found with respect to same-sex marriage, with one important exception. The large gender gap between LGB-identifying men and women found on support for same-sex marriage is substantially smaller when it comes to predicting political tolerance. This suggests that attitudes towards same-sex marriage may be particularly influenced by gender, but that gender may have much less influence on attitudes towards other sexual minority rights and policies. Confirmation of this theory will require further public opinion data on specific policies.

Overall, then, this study finds strong evidence that while identifying as lesbian, gay, or bisexual is, indeed, positively associated with greater support for same-sex marriage, the effect of LGB identification is moderated by sex. It is not surprising, of course, that gender gaps in opinion that have been reported in the broad population might also be found among sexual minorities. It is entirely plausible, however, that such gaps might manifest in different ways on different issues among sexual minorities, since the traditional gender roles and socialization norms that are often cited as a primary source of such political opinion gaps may be rejected or re-interpreted in the sexual minority community. Further study of gender gaps in sexual minority political opinion may, in fact, offer new opportunities to test theories for how gender gaps form and evolve in the broader population. While the General Social Survey is somewhat short on items that measure political opinions, other surveys that are now collecting sexual orientation data, such as the
American National Election Studies, might well present opportunities for further study of this topic.

This study also finds evidence that contradicts the popular view that individuals who are "on the downlow," that is, people who identify as straight but who have same-sex sexual partners, are more hostile to sexual minority civil rights than are other straight-identifiers. In fact, my analysis suggests that such individuals may actually be more supportive, not less. A major difference between this study and a previous study that found evidence of such hostility among same-sex-attracted individuals (Weinstein et al. 2012), is that the straight-identifying individuals in this study were willing to disclose their same-sex sexual behavior while the previous study examined the attitudes of individuals who showed physical evidence of minority sexual identity, but who concealed it from the researchers. These results are not, in my view, inconsistent with the previous work since both studies suggest that it is the concealment of minority sexual orientation that produces the sexual minority hostility. This study builds on the previous work by demonstrating that the psychological and sociopsychological benefits of disclosing one's minority sexual orientation may produce greater support for sexual minority rights even if the disclosure is limited to at least to a human or computer interviewer or if the disclosure is about same-sex behavior alone, at least among unmarried individuals.

A third major implication of this study is that sexual orientation is a more complex phenomenon than the mutually exclusive values of "gay, lesbian, bisexual or straight" can represent. Future study of the political opinions and behaviors of sexual minorities would benefit from a more descriptive and valid measurement of sexual orientation, one that incorporates various configurations of attraction, identity, and behavior, and when appropriate, one that allows for these configurations to vary over time.
Though my findings support, fully or partially, all of the hypotheses presented in this study, there are, of course, some limits that bear discussion. First and foremost, as a cross-sectional survey study, it is not possible to be certain that an individual's disclosure of his or her minority sexual orientation preceded or caused the increased support for same-sex marriage. It is possible that same-sex-attracted individuals who feel positive affect for sexual minorities and who are more supportive of sexual minority rights will also be more likely to disclose or "come out" as a result of these factors. To rule out this possibility will require longitudinal panel data with the relevant political variables, which, to my knowledge, does not currently exist. Within the psychological literature, however, several of the cited psychological studies employed experimental methods to assess the causal direction of the relationship between disclosure of a stigmatized condition and the improved group affect, self-evaluation, and social interaction which I theorized might produce greater sexual minority rights support. Though such studies support the plausibility of the causal mechanism I've proposed, any claims of causal direction in this study should be treated as no more than theoretical.

Finally, it is worth acknowledging once again that the battles over same-sex marriage and other sexual minority rights are ongoing and that the apparent rate of change in public opinion on these issues has been astonishing. If the forces that influence the political attitudes on these issues are also in flux, this may have implications for the present study and for any others that must rely on the pooling of sexual minority survey data over time in order to achieve a satisfactory sample size. While I do not believe that the influence of the "coming out" process changed substantially over the four years in which this data was collected,\textsuperscript{65} it is conceivable that its effects

\textsuperscript{65} The models in Table 2 were also estimated with indicator controls for each of the survey years. Though the indicators were themselves significant, the substantive interpretation of the primary variables of interest was unchanged and so these models were omitted in the interest of space and concision.
might well change with time if "coming out" as a sexual minority continues to be viewed as non-stigmatizing. In my view, this concern simply reinforces the need for political science to establish a baseline of data on the sexual minority population, so that we may learn how such changes might affect the political attitudes and behaviors of many similarly marginalized groups.
Appendix B: Tables and Figures for Part II

Table 1. Sexual Identity and Sexual Behavior among American Adults.

<table>
<thead>
<tr>
<th>Sexual Identity</th>
<th>Only opposite-sexed partners</th>
<th>Both opposite- and same-sexed partners</th>
<th>Only same-sexed partners</th>
<th>No sexual partners</th>
<th>Don't know or no answer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual or straight</td>
<td>82.4% (81.3-83.5)</td>
<td>0.4% (0.2-0.6)</td>
<td>0.6% (0.4-0.9)</td>
<td>10.7% (9.8-11.5)</td>
<td>1.2% (0.9-1.6)</td>
<td>95.3% (94.7-95.9)</td>
</tr>
<tr>
<td>Bisexual</td>
<td>0.5% (0.3-0.7)</td>
<td>0.8% (0.5-1.0)</td>
<td>0.1% (0.0-0.2)</td>
<td>0.1% (0.0-0.2)</td>
<td>0.0% (0.0-0.1)</td>
<td>1.6% (1.2-1.9)</td>
</tr>
<tr>
<td>Gay, lesbian, or homosexual</td>
<td>0.0% (0.0-0.1)</td>
<td>0.1% (0.0-0.2)</td>
<td>1.1% (0.8-1.4)</td>
<td>0.2% (0.1-0.3)</td>
<td>--</td>
<td>1.4% (1.1-1.7)</td>
</tr>
<tr>
<td>Don't know or no answer</td>
<td>0.7% (0.4-1.0)</td>
<td>0.0% (0.0-0.0)</td>
<td>--</td>
<td>0.2% (0.1-0.3)</td>
<td>0.9% (0.5-1.1)</td>
<td>1.7% (1.3-2.1)</td>
</tr>
<tr>
<td>Total</td>
<td>83.6% (82.6-84.7)</td>
<td>1.3% (1.0-1.7)</td>
<td>1.8% (1.4-2.2)</td>
<td>11.1% (10.2-12.0)</td>
<td>2.1% (1.7-2.6)</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations.
Numbers in cells are population proportion estimates followed by 95% confidence intervals in parentheses. Shaded categories represent implicit same-sex attraction. Estimated proportions were calculated using GSS non-response weights. Discrepancies in some totals are due to rounding.
Table 2. The Influence of Sexual Identity and Sexual Behavior on Support for Same-Sex Marriage, “Homosexual” Political Tolerance, and Government Aid for the Poor.

<table>
<thead>
<tr>
<th></th>
<th>Supports Same-Sex Marriage</th>
<th>Political Tolerance Index</th>
<th>Supports Govt Aid for the Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Model 1)</td>
<td>(Model 2)</td>
<td>(Model 3)</td>
</tr>
<tr>
<td>LGB-identity</td>
<td>1.395*** (0.259)</td>
<td>0.999*** (0.320)</td>
<td>0.651* (0.366)</td>
</tr>
<tr>
<td>Female</td>
<td>0.352*** (0.084)</td>
<td>0.337*** (0.085)</td>
<td>0.570*** (0.103)</td>
</tr>
<tr>
<td>LGB-identity x Female</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Downlow”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(=1 if straight-identifying &amp; same-sex partners)</td>
<td>0.538 (0.409)</td>
<td>1.375** (0.558)</td>
<td>1.861** (0.746)</td>
</tr>
<tr>
<td>Married</td>
<td>-0.412*** (0.091)</td>
<td>-0.398*** (0.091)</td>
<td>-0.147 (0.104)</td>
</tr>
<tr>
<td>“Downlow” x Married</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-2.409** (1.020)</td>
<td>-2.339* (1.234)</td>
<td>-0.089 (0.112)</td>
</tr>
<tr>
<td>Non-white</td>
<td>-0.438*** (0.106)</td>
<td>-0.433*** (0.107)</td>
<td>-0.449*** (0.130)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.024*** (0.003)</td>
<td>-0.024*** (0.003)</td>
<td>-0.025*** (0.003)</td>
</tr>
<tr>
<td>Education</td>
<td>0.136*** (0.015)</td>
<td>0.137*** (0.015)</td>
<td>0.085*** (0.018)</td>
</tr>
<tr>
<td>Liberal ideology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conservative ideology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bible is a book of fables</td>
<td>0.890*** (0.128)</td>
<td>0.010 (0.012)</td>
<td></td>
</tr>
<tr>
<td>Bible is literal word of God</td>
<td>-1.001*** (0.125)</td>
<td>-0.157*** (0.017)</td>
<td>0.101 (0.117)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.794*** (0.247)</td>
<td>-0.803*** (0.247)</td>
<td>-0.140 (0.288)</td>
</tr>
<tr>
<td>Observations</td>
<td>3,449</td>
<td>3,449</td>
<td>3,223</td>
</tr>
</tbody>
</table>

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Numbers in cells are logistic regression coefficients for Models 1-3 and 5 and †OLS regression coefficients for Model 4. Coefficients are followed by standard errors in parentheses. †† For Model 5, the interaction of “Downlow” and “Married” was omitted due to perfect collinearity. *** p<0.01, ** p<0.05, * p<0.1; two-tailed significance tests using General Social Survey non-response weights.
Figure 1. Proportions with Two or More Gay/Lesbian Acquaintances by Sexual Behavior.

Source: General Social Survey (2006) and author’s calculations.
(Two-tailed difference of proportions test is statistically significant, p-value = 0.0004.)

Figure 2. Proportions Trusting Two or More Gay/Lesbian Individuals by Sexual Behavior.

Source: General Social Survey (2006) and author’s calculations.
(Two-tailed difference of proportions test is statistically significant, p-value = 0.0038.)
Figure 3. Predictive Margins of Political Ideology and Religious Belief on Support for Same-Sex Marriage and Political Tolerance of Sexual Minorities.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations (Model 3). Probabilities are estimated averages based on covariate values as observed in sample. Error bars represent 95% confidence intervals.
Figure 4. Predictive Margins of Lesbian, Gay or Bisexual Identity & Sex on Support for Same-Sex Marriage and Political Tolerance of Sexual Minorities.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations (Model 3). Probabilities are estimated averages based on covariate values as observed in sample. Error bars represent 95% confidence intervals.
Figure 5. Average Marginal Effect of “Downlow” Identity and Behavior on Support for Same-Sex Marriage and Political Tolerance of Sexual Minorities, by Marital Status.

Effects on Pr(Supports Same-Sex Marriage)

-6 -4 -2 0 2 4

not married married

Effects on Political Tolerance Index

-6 -4 -2 0 2 4

not married married

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations (Model 3). Estimates are averages based on non-LGB sexual identity with other covariates as observed in sample. Error bars represent 95% confidence intervals.
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PART III:

EXAMINING THE INFLUENCE OF POLITICAL IDEOLOGY AND RELIGIOUS BELIEF ON EXPRESSIONS OF SEXUAL ORIENTATION

Abstract

Sexual orientation is comprised of at least three separate, yet interrelated, components: sexual attraction, sexual identity, and sexual behavior. Of these, only attraction is thought to be extremely stable over one's life. The choices a same-sex-attracted individual might make in terms of his or her sexual behavior and sexual identity are more fluid, and likely to be interrelated with other fundamental aspects of one's psychological makeup, including, potentially, one's religious and political beliefs. In this study, I sought to examine how these factors influence a same-sex-attracted individuals' choice 1) to identify as gay, lesbian, or bisexual, 2) to be sexually active or celibate while identifying as LGB, or 3) to identify as straight while engaging in same-sex sexual behavior "on the downlow." I used rare events logit multiple regression to analyze data from the 2008-2012 General Social Survey data, and found that liberal political ideology substantially increases the probability that an individual will choose to identify as bisexual, gay, or lesbian, as well as the probability that an individual will have been sexually active with same-sex sexual partners. Among ideologically conservative individuals, belief in the literal truth of the Bible tends to increase the probability of being "downlow," and high extrinsic religious orientation tends to increase this probability still further; but belief that the Bible is a book of fables and low extrinsic religious orientation tend to push LGB-identifying conservatives towards celibacy.
Introduction and Theory

“Why do I have to put a label on myself to make you comfortable?...In the black community, if you come out say 'I'm gay and proud', then automatically people look at you differently and they treat you differently. All of a sudden, I become 'oh, I want you to meet my gay friend, J.L.,' 'I want you to meet my gay brother, J.L.,' 'I want you to meet my gay father, J.L."... Downlow means I don't want anybody to know. I wanna do what I do, it's my business, and it's none of your business what I do.”

- J. L. King, in a 2004 interview, on being "downlow"66

“I have accepted the fact that I am a black, gay, proud man. Fear is what kept me on the downlow. The fear of losing my family. The fear of losing my children. The fear of hurting my parents. The fear of losing my relationships with cousins and extended family and the church.”

- J. L. King, in a 2010 interview, on no longer being "downlow"67

“The whole being celibate and openly gay thing doesn’t sit well with a lot of people, and frankly I can’t blame them. Unless they’re a member of my faith and believe it’s true, I don’t expect other people to really come to terms with it...I’m willing to endure this life, it’s gonna be horrible and it’s gonna suck. I’m gonna be lonely and no one wants that, but I believe in the end, it’ll be worth it.”

- Jimmy Lee Hales, in a 2013 interview, on being gay, Mormon, and celibate68

The statements above from men interviewed on television talk shows in recent years reveal just a few of the many different choices about the expression of individual sexual orientation that same-sex-attracted individuals might make in their lives. The quotes reflect the dynamic nature of sexual orientation, the various ways that sexual attraction, identity and behavior can interact and evolve, and they also provide some insight to the factors that can influence the choice of whether

to identify as straight, gay, bisexual, or downlow, and whether to engage in sexual behavior with same-sex partners.

In 2004, J. L. King chose not to identify as a gay man, but as a straight man, albeit one acting "on the downlow," that is, having sex with other men. In 2010, he no longer identified as straight, but as "a black, gay, proud man." Though his sexual attraction towards and sexual behavior with other men was the same in 2010 as it was in 2004, the label that he used to describe his sexual identity did vary; and he attributed his choice to be "downlow" to fear and anxiety about how identifying himself as gay might affect how family, friends, and church members might perceived him.

In February 2013, Jimmy Lee Hales posted a YouTube video in which he described himself as a "gay Mormon," and showed video recordings of the responses of friends and family when he "came out" to them. Hales's video received over 450,000 views on YouTube, perhaps due, in part,

69 Notes on terminology: The phrases “on the downlow,” “on the DL” and the term “downlow” are in colloquial use to refer to an individual (often, though not exclusively, presumed to be a black male) who identifies as straight, but who has sex with other men. Use of this term in common discourse is not without controversy (see, for example, Phillips 2005 for a critical deconstruction); but for the sake of brevity and readability in this study, it is useful. To be clear, I use “downlow” to mean any individual, regardless of sex or race, who identifies as straight, but who has sex, occasionally or exclusively, with same-sex partners. “LGB” is an acronym commonly used to refer to the population of individuals who self-identify as lesbian, gay, or bisexual, and I use it to mean the same thing in this paper. This study, however, is particularly interested in the political opinions of all people who are sexually attracted to the same sex, whether or not they self-identify as lesbian, gay or bisexual. To make clear this distinction, I use the phrase “sexual minorities” to refer to all individuals who experience same-sex attraction, regardless of their self-identity or sexual behavior. Though the phrase “gay rights” is frequently used elsewhere as a convenient shorthand to refer to civil rights for all sexual minorities, not just gay men, such rights protections are not ordinarily predicated on an individual actually identifying as gay, lesbian or bisexual. For example, a male soldier who has sex with other men, but who does not call himself gay, is just as protected by the repeal of “Don’t Ask, Don’t Tell” as is the soldier who tells his superior officer that he is a gay man. I prefer, therefore, the term “sexual minority rights” as it is both clearer and more accurate. When I wish to distinguish minority sexual identity from minority sexual behavior, I typically refer to someone who has “an LGB identity” or “same-sex sexual partners,” respectively. Finally, LGB individuals often report feeling that the term “homosexual” is derogatory, and so I avoid it. Similarly, although “gay” is sometimes used to refer to all LGB individuals, many lesbian women and bisexual men and women feel excluded by this term, so I do not use it except to refer only to gay men. The term “heterosexual” has been found to be confusing to some survey respondents, but that measurement error is reduced when respondents are given the option “heterosexual or straight” (Badgett and Goldberg 2009). Given this, and since it seems unlikely that most people find the term “straight” derogatory, I use it when referring to individuals who identify themselves as straight or heterosexual, regardless of their sexual behavior.
to curiosity and puzzlement about his choice to identify as a gay man but to remain celibate, a
decision that he attributed to his conviction of the truth of his religious belief.\textsuperscript{70}

The different ways that these two men have chosen to reconcile their sexual attraction, sexual
behavior, and sexual identity reflect similar choices made by millions of other Americans who are
sexual minorities. Researchers have identified these three components--attraction, identity, and
behavior--as comprising the central elements of an individual's "sexual orientation," and have
described an individual's on-going choices of how to reconcile these components as the "coming
out process" (see Cass 1979, Sell 1997, and Part II of this project for reviews of this subject).
With the rise in the public visibility and social acceptance of sexual minorities, it is not surprising
how much attention these statements received--people are naturally curious about the choices
that same-sex-attracted individuals make with respect to their sexual orientation; but mere
curiosity is not the reason to study this phenomenon. In my view, sexual orientation is relevant to
our study of political attitudes and behaviors for two primary reasons. First, for same-sex-
attracted individuals, decisions about one's sexual identity and sexual behavior may have
consequences for one's political opinions and behaviors, evidence for which I presented in Parts I
and II. Second, as I will present next, it may be that a same-sex-attracted individual's choices
about whether and how to "come out" are influenced by his or her political ideologies and
religious beliefs; in other words, political and religious beliefs may also affect a same-sex-
attracted individual's decisions about whether and how to express his or her own sexual
orientation.

\textsuperscript{70} The response of the interviewer on The Joy Behar: Say Anything! Show to Hales's statement was also framed in
terms of religious belief: "To hear you say that part of your faith says that your life is going to be horrible and lonely
really hurts me...I don't feel that that's what any faith should be for someone, not to tell you how to believe."
If the theory that political attitudes may affect the coming out process is somewhat surprising, the influence of religion is, perhaps, less so. Both King and Hales cited this factor in their decisions to be downlow and celibate, respectively, but the exact nature of religion's influence is unclear. I will propose that both one's religious beliefs and one's psychological orientation to religion can exert influence on one's sexual orientation choices, but that while conservative religious belief might lead someone like Hales to choose to identify as gay but remain celibate, decisions like King's to identify as straight but to have same-sex sexual partners "on the downlow" are better explained by one's orientation towards religion than by religious belief alone.

I acknowledge that the proposal that sexual orientation may be influenced by political ideology, in particular, is contrary to the conventional wisdom regarding the relationship between social groups and individual political attitudes. For example, since previous research has found extensive evidence that affiliation or subjective identification with a social group can influence political attitudes (see, for example, Tajfel 1981; Conover 1984; Kramer and Brewer 1984; and Fowler and Kam 2007), some readers of Part II may not have been surprised by the primary finding that same-sex-attracted individuals who affiliate with other sexual minorities tend to develop more supportive views of sexual minority rights, although this phenomenon had not, to my knowledge, previously been documented among the so-called "downlow" population, a population whose affiliation with sexual minorities might well be limited to sexual encounters. What I propose here, however, is that the causal arrow that links ideology, religious belief and sexual orientation need not point in only one direction or work in the same way for every individual that is same-sex-attracted.
Consider three fictional individuals, all of whom are born with an innate attraction to people of the same sex. Kim is born into a fundamentalist, active churchgoing family in a small rural community. Kim's family's religious beliefs might tend to reinforce the socially predominant conservative political ideology, and Kim may decide that rejection of any same-sex attraction, identity or behavior is the only way to preserve much-valued religious ties and political values.

Sandy is raised in a nonreligious, politically moderate home. At college, Sandy dates partners of both sexes, one of whom invites Sandy to visit his theologically liberal church. Sandy finds peace and satisfaction in the newfound religious experience and becomes interested in the progressive political issues that other members of the church talk about over coffee.

Sasha is raised in a moderately religious, politically active and liberal family. From a young age, the positive experiences participating in political events with family members leads Sasha to "come out" at an early age, and the early interest in politics leads Sasha to increasing engagement with LGBT political organizations.

These three individuals follow different paths to the exploration and development of their ideology, religion, and sexual orientation. I propose these three examples simply to illustrate that these are fundamental components of each individual, with complex, reciprocal, dynamic interrelationships. My goal in this paper is not to claim that there is a single causal pathway, but to point out how intertwined these aspects are, and to argue that their intersection, competing, and mutually-reinforcing relationships are worthy of our attention, even if we don't yet have a full understanding or model of their precise nature.

**The Influence of Political Ideology**

Patrick Egan's examination (2012) of respondents to the 2008 and 2010 General Social Survey provided an important foundation for this study by showing that background
characteristics usefully predicted identification as lesbian, gay, or bisexual; he also showed that LGB identification was associated with similar voting behavior and political attitudes. In the present study, I sought to extend his findings by examining the predictors of other non-majority sexual orientation, namely being "downlow" and being "LGB but celibate."

What is political ideology and why might it influence a same-sex-attracted individual’s coming out process? While it is not uncommon today for scholars and laypersons alike to speak of ideology as only a political phenomenon, the earliest scientific studies of ideology were not carried out by political scientists. In particular, the study of conservative ideology has had a long research history among psychologists and sociologists, with perhaps the best known being Theodor Adorno’s study of authoritarian personalities following World War II (Adorno et al. 1950). Though Adorno's work has received substantial criticism, and a number of the findings have been rebuffed, it still made a significant contribution in proposing that there were psychological explanations for an individual’s political values, behaviors, and beliefs.

Despite the work of Adorno and others, it wasn’t until Philip Converse demonstrated (1964) that few members of the mass public exhibited logical, consistent reasoning about political issues, that political scientists began in earnest to develop new models to explain and understand the bases of political ideology. Drawing theories and evidence from psychology, sociology, and economics, political science has since produced a vast literature studying the phenomenon of political ideology. Though the intermixing of these various disciplines has been criticized, at times, for conflating the political and psychological aspects of ideology (see, for example, Sidanius, Pratto, and Bobo 1996), it is still fair to say that political scientists have a much more

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71 It is ironic, perhaps, that among the discredited theories is the argument that repressed homosexual tendencies could cause an individual to prefer strict, ordered, authoritarian hierarchies and regimes.
nuanced, evidence-based understanding of political ideology than they did in Converse's day, though there still remains much to explore.\footnote{For example, it is surprising that ideological liberalism has not received the attention from researchers that conservatism has, though this is gradually changing. On the other hand, the emerging evidence that political attitudes may have a biological or genetic component (see, for example, Alford, Funk & Hibbing, 2005) has received considerable attention from political scientists, even as psychologists largely seemed to view it as old news.}

Though it is difficult to condense all that we have learned about ideology into a brief description, there are a few aspects that seem particularly relevant and likely to influence the expression of sexual orientation. First, ideologies represent the ideas and views of a collective or group about the way that society can or should function.\footnote{Christopher Federico's description of ideologies is apt: "shared belief systems that reflect some group's understanding of the social world and its vision of what that world should ideally look like" (Federico, 2012, 80).} The different ways that a same-sex-attracted individual might choose to express her or his sexual orientation can have significant impact on any or all of the individual's significant relationships. His or her choices may affect relationships with family and friends, some of whom may be accepting and others who may reject or disown the individual. They may affect relationships with the community, including churches that may condemn or bless the person's choices, employers who may offer partner benefits or terminate employment, even strangers on the street who may ignore, applaud, or assault the individual; and, of course, they may affect the individual's relationships with the state, since it decides whether to protect or deny the individual's rights. It is plausible then, given what is at stake, that the individual's ideological beliefs about the nature of society, about the obligations of the community and the individual, and about the civil rights he or she may claim or be denied on that basis could play an influential role in his or her decisions about whether, when, and how to "come out."

Second, the common and well-known depiction of political ideology as existing on a spectrum from liberalism to conservatism has often proven useful in explaining political attitudes and
behavior; and despite critics who argue that it oversimplifies political belief systems, it has also proven quite resilient. Part of the reason for its endurance may be attributed to the similarly bipolar institutional structures, such as the American political party system, that are mutually reinforcing with ideology, but research also suggests that the distinctions between liberal and conservative ideologies have their roots in fundamental psychological attitudes that are both durable, and highly relevant to questions of minority rights and status. Those fundamental attitudes have been described, generally, as attitudes about social change, and attitudes about inequality in society (see, for example, Jost et al. 2003, and Jost et al. 2009), and researchers have argued that individuals are driven by their own personality traits, needs, and motives to prefer either a liberal or conservative ideology on the basis of these fundamental attitudinal distinctions.

Researchers had previously shown that fear of and resistance to social change was highly correlated to conservatism, as was a preference for traditionalism, while acceptance of change was associated with liberalism (Huntington 1957; Conover and Feldman 1981). In the context of determining one's sexual orientation, one's attitudes about social change could play a large role for if fear of change is a fundamental aspect of conservative ideology, there is no reason to believe that same-sex-attracted individuals would be immune to it. The widespread openness and visibility of sexual minorities in American society is still a relatively young phenomenon, and it is only in the very recent past that depictions of sexual minorities in news and entertainment have tended to be positive; so it is plausible that individuals who feel same-sex attraction, but who distrust and fear social change, might be reluctant to act on their attraction, either by engaging in same-sex sexual behavior or by identifying as bisexual, lesbian, or gay. If, on the other hand, the individual is accepting of, or even welcomes social change, then he or she is probably more likely
to adopt a liberal ideology, and also more likely to consider identifying as a sexual minority or to engage in same-sex sexual behavior.

The second fundamental attitude that appears to be central to political ideology concerns views about the nature of inequality in society, whether unequal hierarchies are naturally occurring, and what, if anything, can or should be done to address inequality. Conservative ideological views have been found to be correlated with greater tolerance for inequality, and with the view that social inequality is inevitable; while ideological liberals are likely to reject the belief that inequality cannot or should not be redressed (Giddens 1998; Pratto et al. 1994). Given their minority status and the on-going battles for sexual minority civil rights, it seems reasonable to suspect that a same-sex-attracted individual's attitude towards inequality might play a role in his or her decision about reconciling his or her sexual identity and sexual behavior, and so political ideology might again be implicated in the choices that such an individual might make. If the person tends to view social inequality as something that can and should be overcome, then he or she might be more inclined to openly identify as gay, lesbian, or bisexual if he or she believes that positive visibility and interpersonal contact can reduce unequal treatment of sexual minorities. If, on the other hand, the individual feels that inequality is inevitable, then identifying as a sexual minority might be viewed as a liability, and only likely to worsen his or her situation. In that case, the individual would probably be more likely to be ideologically conservative, and less likely to identify as a sexual minority.

Given that these two fundamental attitudes appear to be strongly correlated with political ideology, it seems very plausible, then, that ideology and sexual orientation, both in terms of identity and behavior, might also be correlated. Of course, correlation doesn't prove causation, and sexual orientation and ideology are both known to exhibit within-individual variation over
time. However, while sexual orientation, particularly the identity and behavior components, appears to vary over the lifecycle (see, for example, Brown 1995; Rosario et al. 1996; Baumeister 2000; Diamond 2003; Kinnish et al. 2005), there is evidence in the research literature that variation in ideology is greater in adolescence, and then tends to stabilize or crystallize by early adulthood. Several studies of ideology stability, conducted at different points in time, have found ideological self-placements to be highly stable over two and four year periods (see, for example, Converse & Markus, 1979; Levitin and Miller 1979; Alwin and Krosnick 1991; Goren, 2005). Sears and Funk (1999) found, in a four-wave longitudinal study over 37 years from 1940 to 1977, that ideological self-placement was remarkably high even over this long period (correlations of 0.65 across the period, and about 0.8 from wave to wave), that it was largely resistant to the major issue adjustments of this period, and that the small percentage of ideology changes that did occur tended to move in the same direction; but they noted that there was more variation in the early waves, when the respondents were younger.

Furthermore, research into the determinants of the attitudes that appear to guide the selection of ideology has found that basic personality traits are strong predictors of both attitudes and ideologies. The traits of openness to experience and conscientiousness, two of what are commonly referred to as "The Big 5" personality traits, have been found to be correlated with political liberalism and political conservatism, respectively, and furthermore, these traits have also been found to be both highly stable over the lifecycle and highly heritable (see, for example, Riemann, Grubich, Hempel, Mergl and Richter 1993; Carney, Jost, Gosling, and Potter 2008; Gerber et al. 2010; Mondak and Hibbing 2012).

Finally, the theories of social identity and of system justification suggest still one more reason to believe that ideology may precede sexual orientation. During Tajfel's research into social
identity (1981), a puzzle arose: if individuals come to identify with a particular social category or group in order to experience positive enhancement of their self-esteem, as Tajfel argued, why then do some individuals identify with low-status groups or groups marginalized by greater society? Tajfel did not have an entirely satisfactory answer for this question, but other researchers argued that the answer to the puzzle was that some people have a psychological motive to maintain the status quo and that these people will go so far as to denigrate their own group and rationalize their group's relative deprivation in order to justify and reinforce the existing system (Jost, Banaji and Nosek 2004). This "system justification" phenomenon has obvious ties to the inequality attitude aspect of conservative ideology, and system justification has been shown to be correlated with conservatism. In fact, Jost et al. (2004) found in their study that self-identified gay and lesbian individuals who were political conservatives were more likely than their non-conservative peers to show bias against their ingroup (i.e., other gays and lesbians) and favoritism for the outgroup (i.e., straight individuals). If sexual orientation, in the form of identification with other sexual minorities, actually precedes and causes ideology, it is difficult to imagine why this outgroup favoritism would occur.

The literature cited implies a plausible causal chain of reasoning that begins with personality traits and sexual attraction that are set early in life, which may influence preferences for political values and ideologies (and, perhaps, religious beliefs and behaviors), which may then, in turn, affect the choices a same-sex-attracted individual makes concerning his or her sexual identity and sexual behavior.

To summarize, the research literature into the phenomenon of political ideology, though vast, supports the theory that political ideology reflects fundamental attitudes and psychological motives that could reasonably be expected to influence the expression of sexual orientation.
Specifically, political conservatism may reduce the likelihood that a same-sex-attracted individual will engage in same-sex sexual behavior or identify as a sexual minority, while political liberalism may increase the probability of both. Of course, as this is a cross-sectional study, it is not possible to prove the direction of causation, but the search for causal explanations begins with the theoretical explication of plausible causal pathways, and, very often, examination of available data for associations that support the theory proposed. In the next section, I present literature on the influence that religious belief and religious orientation may exert on decisions about one's coming out process.

**The Influence of Religious Belief and Religious Orientation**

Religious belief has often been found to be a predictor of attitudes towards policies that affect sexual minorities among the general public (Wilcox and Wolpert 2000; Wilcox and Norrander 2002; Brewer 2003). So perhaps it seems obvious that individuals who experience same-sex attraction might be influenced by their religious beliefs in deciding how to reconcile their sexual attraction, identity, and behavior. This seems especially likely if the individual's religious faith has doctrinal proscriptions against same-sex sexual behavior, which are often founded in or supported by references to scriptural texts, such as the admonition in the book of Leviticus in the Christian and Jewish scriptures: "Do not have sexual relations with a man as one does with a woman; that is detestable."\(^7\)\(^4\) For religions and individuals that interpret Leviticus as being the literal word of God, the prohibition on same-sex sexual behavior is clear. A same-sex-attracted individual with those beliefs or who is affiliated with such a religion would, it may appear, be more likely to stay "in the closet," to identify as straight and to eschew same-sex sexual contact;

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\(^7\)\(^4\) New International Version, Leviticus 18:22.
and this suggests that beliefs about the nature of scripture, whether it represents literal truth or not, could be a useful predictor of sexual orientation expression.

The story is a bit more complicated than this, however, since religions that treat the Biblical proscription on same-sex sexual behavior as a commandment do not necessarily prohibit same-sex attraction or identifying as a sexual minority. As Rosik et al. (2007, p. 11) noted, many religions that proscribe same-sex sexual behavior distinguish between sexual identity and sexual behavior and advise their members to "love the sinner, hate the sin." In fact, the official positions of both the Roman Catholic and Mormon churches are that it is same-sex sexual behavior, not attraction or identification, that is prohibited. This is why a same-sex-attracted individual whose religious beliefs prohibit same-sex sexual behavior, such as Mormon Jimmy Lee Hales, might choose to abide by the prohibition against same-sex sexual behavior while also choosing to identify as gay. Choosing to identify as gay, lesbian, or bisexual while remaining celibate might still be a difficult choice for same-sex-attracted members of these religions, but it could provide a

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75 The Catechism of the Catholic Church states: “Basing itself on Sacred Scripture, which presents homosexual acts as acts of grave depravity, tradition has always declared that ‘homosexual acts are intrinsically disordered.’ They are contrary to the natural law. They close the sexual act to the gift of life. They do not proceed from a genuine affective and sexual complementarity. Under no circumstances can they be approved. The number of men and women who have deep-seated homosexual tendencies is not negligible. This inclination, which is objectively disordered, constitutes for most of them a trial. They must be accepted with respect, compassion, and sensitivity. Every sign of unjust discrimination in their regard should be avoided. These persons are called to fulfill God’s will in their lives and, if they are Christians, to unite to the sacrifice of the Lord’s Cross the difficulties they may encounter from their condition. Homosexual persons are called to chastity. By the virtues of self-mastery that teach them inner freedom, at times by the support of disinterested friendship, by prayer and sacramental grace, they can and should gradually and resolutely approach Christian perfection.” (“Catechism of the Catholic Church”).

76 From www.mormonsandgays.org, an official website of the Church of Jesus Christ of Latter-Day Saints: “Where the Church stands: The experience of same-sex attraction is a complex reality for many people. The attraction itself is not a sin, but acting on it is. Even though individuals do not choose to have such attractions, they do choose how to respond to them. With love and understanding, the Church reaches out to all God’s children, including our gay and lesbian brothers and sisters.” (“Love One Another: A Discussion on Same-Sex Attraction”).

77 While some might argue that the average Catholic or Mormon is not necessarily aware of the doctrinal guidance on such issues, it is reasonable to suppose that same-sex-attracted Catholics and Mormons are much more likely to be aware of such distinctions since they are highly salient. My own anecdotal conversations with same-sex-attracted individuals in both of these faiths have tended to support this view.
way for some to reconcile tensions between their religious faith and their sexual attraction.\textsuperscript{78} This fact also suggests, however, that literal interpretation of scripture alone could prove less effective as a predictor of sexual orientation expression than expected, since while it might discourage same-sex sexual behavior overall, it might not affect the expression of sexual identity in any consistent way.\textsuperscript{79}

Belief in the literal truth of the Bible, however, is not the only aspect of religion that might play a role in determining the expression of sexual orientation. J. L. King ascribed his decision to be "downlow" not to church doctrine, but to his "fear of losing my relationships with cousins and extended family and the church" (emphasis added). King does not here appear to be concerned about violating religious doctrine, but is instead worried that he will be deprived of the social interaction with other church members. Though his comment is brief, it is indicative of what Allport and Ross (1967) described as an "extrinsic orientation" towards religion. Individuals with high extrinsic orientation value religion for its role in fulfilling social and personal needs, such as providing status and sociability, while individuals with an "intrinsic orientation" value religion for providing values, meaning and motivation for their lives. The extrinsic-intrinsic religious orientation model has been found to be highly resilient and influential in many psychological studies of religion and other social phenomena, so much so that it has sometimes been described as a durable aspect of personality (see Donahue 1985 for a review).

\textsuperscript{78} As described in Part I, research suggests that concealment of a stigmatized identity can negatively impact mental health, self-regard, and social support (Fishbein and Laird 1979; Hetrick and Martin 1987; Frable et al. 1998; Beals 2004; Safren and Pantalone 2006), and so choosing to identify as gay, lesbian, or bisexual may improve the well-being of the same-sex-attracted individual.

\textsuperscript{79} It is also important to note that not all religions that respect the same scriptural texts interpret them in the same way; doctrines among Christian churches, for example, range from total condemnation of any form of minority sexual orientation to complete acceptance of same-sex attraction, sexual behavior, and sexual identity. In general, the more accepting religions, such as the Episcopal Church in the United States, tend to reject the view of scripture as literal and inerrant. It is not the case, however, that all churches that condemn same-sex sexual behavior interpret the Bible literally; both the Catholic Church and The Church of Jesus Chris of Latter-Day Saints (the "Mormon church) generally view the Bible as inspired, but not the literal word of God.
Significantly for this study, religious orientation has been found to be related to sexual attitudes and behaviors among adults, regardless of sexual orientation. In studying the relationship between religious orientation and sexual behaviors, Rowatt and Schmitt (2003) found that extrinsically oriented individuals showed lower levels of sexual restraint and relationship exclusivity, and higher levels of sexual liberalness, sociosexuality (willingness to have casual sexual encounters) and mate-poaching (pursuing sexual partners individuals already in committed relationships). Intrinsically oriented individuals showed the opposite pattern. Rowatt and Schmitt theorize that because individuals with an intrinsic religious orientation find meaning in their religion, they are more likely to follow religious strictures on sexual behavior, while individuals with an extrinsic religious orientation are motivated more by satisfying personal goals and urges and so are more sexually permissive. This description is certainly reminiscent of the distinction between J. L. King and Jimmy Lee Hales, with King's former "downlow" sexual orientation clearly more likely to result from an extrinsic religious orientation and Hales's "out and celibate" orientation much more attuned with an intrinsic orientation.

There is still another reason to believe that extrinsic religious orientation might be influential. Herek (1987) studied the relationship between religious orientation and tolerance for sexual minorities, and while he found that both extrinsically and intrinsically oriented individuals were more likely to express prejudicial attitudes towards gay men and lesbian women than were individuals who were less religious, the most prejudicial attitudes were expressed by the individuals with an intrinsic religious orientation. Herek attributed this to the intrinsically oriented individual's appreciation for religion as a source of personal values. Therefore, individuals with an extrinsic religious orientation may be more open to affiliating with sexual minorities, at least as compared to individuals with an intrinsic orientation.
Though an instrument for the measurement of extrinsic-intrinsic religious orientation was developed by Allport and Ross (1967), and has seen several subsequent improvements, it has not, unfortunately, been routinely deployed in political science studies. In a study intended to evaluate the relationship between religious orientation and other religious measures, Maltby et al. (1995) found, that extrinsic religious orientation was positively correlated with the frequency of church attendance; this is likely to be due to the extrinsically oriented individuals preference for the social benefits of religious participation. To validate this correlation, I examined two items in the 2008 General Social Survey that were very similar to items from Allport and Ross's extrinsic orientation scale, as well as later revisions suggested by Gorsuch and McPherson (1989). Individuals who agreed or strongly agreed with the statements "religion helps people to make friends" and "religion helps people meet the right kind of people" reported more frequent attendance at religious services than did individuals who disagreed or said they neither agreed nor disagreed.\textsuperscript{80} This suggested that religious attendance could serve as a useful proxy for extrinsic religious orientation, and so I chose to use it for this purpose in this study.

By contrast, the intrinsic orientation to religion is likely correlated with beliefs about the inerrancy of scripture, since intrinsically oriented individuals look to religion for guidance about how to live. This meant that controlling for intrinsic orientation might obscure the influence of Bible beliefs in this study, and so I did not include a separate measure of intrinsic orientation in this analysis, expecting instead that a control for Bible beliefs would adequately reflect its influence, if any.

The extrinsic-intrinsic distinction seems to align neatly with the choices a religious, same-sex-attracted individual might make. If he or she is intrinsically oriented towards religion and if his or

\textsuperscript{80} Wilcoxon Rank-Sum tests showed statistical significant association between religious attendance and both GSS items; p-values were < 0.0001 in both cases.
her religion does not condemn same-sex attraction or LGB identity but does condemn sex with same-sex partners, then living a celibate life, it seems, should be more likely, whether or not the individual actually chooses to identify as a sexual minority. On the other hand, if the individual's religion condemns both same-sex behavior and same-sex attraction, as do many evangelical Christian faiths, then an intrinsically orientation may make the individual more likely to identify as straight and to remain celibate while an extrinsic orientation may lead the individual to identify as straight but to have same-sex sexual partners “on the downlow.” Since an extrinsically oriented person particularly appreciates the social and personal benefits of religion, there would be little incentive for her or him to identify as a sexual minority since that could jeopardize the aspects of religious activity that are most valued. Furthermore, since this individual is less likely to value the morals and values aspects of the religion, he or she may be more willing to violate its restrictions on same-sex sexual behavior and more likely to engage in casual sociosexuality.

These studies suggest, then, that religious orientation may be an important aspect of religion when it comes to explaining the choice of sexual orientation. In particular, while it seems likely that belief in the Bible as the literal word of God will be likely to discourage same-sex-attracted individuals from engaging in (or acknowledging) same-sex sexual behavior, beliefs by themselves may not predict the choice between being "downlow" or "out and celibate." Extrinsic religious orientation, therefore, may play an important role in determining the choice an individual might make between these two alternate expressions of sexual orientation.

81 It should be noted, however, that if such an individual does choose to identify as gay, lesbian, or bisexual, then it may also be necessary for him or her to also openly avow that he or she is celibate, regardless of actual sexual behavior or non-behavior, in order to avoid religious condemnation.
I turn next to the formal statement of hypotheses and a discussion of the research methods used in this study.

**Hypotheses**

In order to analyze the influence of ideology and religion on the expression of sexual orientation (or one's position on the "coming out" spectrum), I proposed the following hypotheses.

While only a minority of American adults report experiencing same-sex attraction (e.g., Sell et al. 1995, using a nationwide probability sample, found that 20.8% of American men and 17.8% of American women said they had either experienced same-sex attraction or participated in same-sex sexual behavior since age 15), the proportion who choose to identify as gay, lesbian, or bisexual is much smaller, generally no more than 3-4% of the total population. Therefore, the first and most obvious question for this study was to consider whether political ideology, religious belief, and religious activity help to explain sexual identity. First, I expected that political conservatism might deter individuals from identifying as gay, lesbian, or bisexual, regardless of sexual behavior. I also expected that after controlling for the effect of ideology, religious belief and activity might still have some influence on identifying as gay, lesbian, or bisexual, but that the effect, if any, would be smaller than that of ideology since a number of religions that prohibit same-sex sexual behavior do not prohibit identifying as gay, lesbian, or bisexual. Therefore:

**H**: Individuals with ideologically liberal political views will be more likely to identify as gay, lesbian or bisexual, holding all else constant, than ideologically conservative individuals.

**H**: Individuals who believe the Bible is "a book of fables" and who attend church rarely or not at all will be more likely to identify as gay, lesbian, or bisexual, holding all
else constant, than those who believe the Bible is the "word of God" and who attend church frequently.

Turning to the question of sexual behavior, since individuals with conservative political ideological views are concerned with preserving traditional societal roles, I expected to find that they would be less likely to engage in same-sex sexual behavior. Since literal interpretations of the Jewish and Christian scriptures appear to prohibit same-sex sexual behavior, I expected to find that individuals who interpret the Bible literally would be less likely to have had sexual partners of the same sex within the preceding 5 years, and that very frequent religious attendance would also diminish the probability of same-sex sexual behavior. Thus:

\[ H_3: \text{Individuals with ideologically conservative political views will be less likely to have engaged in same-sex sexual behavior in the preceding five years than will ideologically liberal individuals, holding other variables constant.} \]

\[ H_4: \text{Individuals who interpret the Bible literally and attend religious services frequently will be less likely to have engaged in same-sex sexual behavior in the preceding five years than will those who say the Bible is a "book of fables" and who do not attend religious services very often, holding other variables constant.} \]

Next, among individuals who evinced same-sex attraction through either their sexual identity or their sexual behavior, but whose sexual identity and sexual behavior is in some state of dissensus, I expected to find that the primary variables of interest would help to explain the choice made between two particular sexual orientation categories of interest: LGB-identifiers who choose to remain celibate (referred to here as "LGB-celibate"), and straight-identifiers who have same-sex sexual partners (referred to here as "downlow"). Since conservative ideology tends to favor traditionalism over societal change, I expected to find that politically conservative views
would be associated with both "LGB-celibate" and "downlow" choices, compared to individuals who identify as gay, lesbian, or bisexual and who are sexually active.

**H5:** Among LGB-identifiers, individuals with conservative political ideologies will be more likely to have been celibate in the preceding year than will those with liberal political ideologies, controlling for other variables.

**H6:** Among individuals who have had same-sex sexual partners in the preceding year, individuals with conservative political ideologies will be more likely to identify as straight than those with liberal political ideologies, controlling for other variables.

Finally, I expected to find after controlling for the effect of political ideology, the religious variables would help to explain why, among those who have had same-sex sexual partners in the preceding year, some individuals identify as straight (this is the "downlow" population). Specifically, since frequent religious attendance may be evidence of an extrinsic religious orientation, which has been found to be associated with lower levels of sexual restraint, I expected to find that Bible literalists with the highest levels of religious attendance would be more likely to be "downlow" than would literalists with lower levels of attendance. That is:

**H7:** Among individuals who have had same-sex sexual partners in the preceding year, high levels of religious attendance will be associated with an increased probability of identifying as straight (being "downlow"), controlling for other variables.

## Data and Methods

In this study, I examined data from the General Social Survey (GSS). Though the General Social Survey has asked about the gender of respondents' sexual partners since 1988, it only

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82 Smith, Tom W., Peter Marsden, Michael Hout, and Jibum Kim. 2013. *General Social Surveys, 2008-2012* [machine-readable data file]. Principal Investigator, Tom W. Smith; Co-Principal Investigator, Peter V. Marsden; Co-Principal Investigator, Michael Hout; Sponsored by National Science Foundation. --NORC ed.-- Chicago:
added a sexual identity question in 2008; therefore, I analyzed responses from the 2008, 2010, and 2012 surveys. Responses were pooled in order to increase statistical power. Of the 5,273 respondents in this sample who responded to a sexual identity item, 5,183 also answered questions about their sexual behavior in the preceding five years. Even with a sample of several thousand observations, the small relative sizes of the populations of interest in this study were a considerable concern. For example, only 188 respondents in this sample identified as LGB and only 57 respondents of the respondents reported being "downlow", that is, identifying as straight but having same-sex sexual partners in the preceding year. In such circumstances, that is, when the dependent variable only rarely is equal to a specified value, logit regression is known to produce biased estimates (King and Zeng 1999; King and Zeng 2001). Fortunately, a correction to the logit estimates in this condition is known and implemented in software (Tomz, King and Zeng 1999), and all analyses that follow were estimated using these corrections for rare events logit regression models.

**Dependent Variables**

The primary dependent variables of interest in this study were the components of the respondent's sexual orientation, as indicated by measures of sexual identity and sexual behavior in the year prior to the survey. Although models of sexual orientation allow for many possible combinations of identity and behavior (as well as attraction), in this study, I was primarily interested in four particular categories of sexual orientation expression: 1) lesbian-, gay-, or bisexual-identifiers with no sexual partners in the preceding year (the "LGB-celibate" category),

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83 There was some missing data on both the sexual identity and sexual behavior items because these items were found on the GSS Self-Administered Questionnaire, which respondents are allowed to omit. For this analysis, these respondents are assumed to be missing-at-random and are excluded from the study.
2) sexually active lesbian-, gay-, or bisexual-identifiers, 3) individuals with any same-sex sexual partners in the preceding five years, regardless of identity, and 4) individuals with same-sex sexual partners in the preceding one year who identify as straight (the "downlow" category).

Responses to a three-category GSS question served to operationalize sexual identity. Variation in sexual identity over the lifecycle is not unusual among sexual minorities; furthermore, since sex exclusively with opposite-sex partners was common among the bisexual-identifiers in this sample (45 of 96 respondents), but rare among gay- and lesbian-identifiers (only 2 of 82 respondents), I chose to retain the distinction between bisexual identity and gay or lesbian identity.

To operationalize sexual behavior, each respondent’s gender was compared with his or her response to items that asked the number and gender of the respondent’s sexual partners in the preceding year and preceding five years. Responses were coded to reflect having partners only of the opposite sex, having partners of the same sex (any same-sex partners or exclusively same-sex partners), or having no sexual partners.

Since there was no significant difference in the proportion of bisexual-identifiers and gay/lesbian-identifiers who reported being celibate in the previous year, I chose to combine them in a single category. In this sample, there were 34 respondents who identified as gay, lesbian, or bisexual and who reported being sexually celibate in the preceding year.

"Downlow" sexual orientation was operationalized with an indicator variable coded "1" for respondents that identified as straight and who reported having same-sex sexual partners occasionally or exclusively in the preceding year. There were 34 "downlow" respondents in this
sample initially, but further verification reduced this to 26.\textsuperscript{84} (Additional discussion of the precautions taken to lessen the measurement error risk may be found in "Appendix C: On Measurement Error.")

**Describing the Subpopulations of Interest**

Table 1 presents estimated proportions for a number of independent and related variables by each of the identity-behavior subpopulations of interest and further subset by sex. The number of respondents in some of the resultant cells is quite small, and these figures are merely univariate descriptions, so these figures should be interpreted with great caution; but there are still some interesting aspects to note. First, women outnumber men in both the "Downlow" and "LGB & Not Celibate" categories, but the reverse is true among the "LGB Celibate" individuals. In all three categories, the proportion of younger women (under 30) is greater than the proportion of younger men, but a larger proportion of older men and women are "LGB & Celibate" compared to the other two categories. The "Downlow" and "LGB & Celibate" subpopulations appear to have lower levels of education and income, while almost one-third of "LGB & Not Celibate" men fall into the upper 25th percentile for income. Also, there appears to be more racial diversity among the "Downlow" respondents, particularly among men. Also, smaller proportions of the "Downlow" respondents report being raised in a rural area or with a fundamentalist religion than do either of the other two categories.

\textsuperscript{84} Given the risk that such a small sample might exaggerate the influence of even small errors in measurement of sexual behavior, these respondents' answers to a separate set of questions about their sexual behavior since age 18 were also used to validate the initial coding. In addition to the previous questions, respondents were asked how many male and how many female sexual partners they had had since age 18. Respondents who were coded “downlow” based on their reported sexual behavior in the preceding year, but who reported having no sexual partners of the same sex since age 18 were recoded as not “downlow.” This procedure further reduced the sample of "downlow" respondents to 26. Though this may have screened out some respondents who were actually “downlow,” this decision was taken to reduce the possibility of incorrectly categorizing respondents as “downlow” as a result of a mistake in the answering or coding of the five-year sexual behavior item alone. I judged this to be the most conservative operationalization approach. Furthermore, while most GSS surveys were conducted in face-to-face interviews, about 12% were conducted over the phone. There was no difference in the distribution of “downlow” respondents between in-person and over-the-phone interviews (chi-square test of homogeneity, p-value = 0.810.)
Turning to the sexual behavior measures in Table 1, since the definition of "Downlow" requires some same-sex sexual activity, there are no celibate respondents or respondents with only opposite-sex partners. However, there is considerable variation in sexual behavior among both "LGB" categories. A large proportion of "LGB & Celibate" respondents, who reported no sexual behavior in the preceding year, also report having no sexual activity in the preceding five years, while nearly a quarter of "LGB & Not Celibate" respondents report having had opposite-sex partners in the preceding five years. Finally, LGB-identifying men in both categories report higher mean numbers of same-sex sexual partners than do LGB-identifying women, and while "Downlow" mean report approximately equal mean numbers of male and female sexual partners, "Downlow" women have, on average, fewer partners of the same sex.

**Independent Variables**

The primary independent variables of interest in this study were measures of political ideology, Bible interpretation, and religious attendance.

Two mutually-exclusive, dichotomous indicators were created to control for political ideology: the first corresponding to "extremely liberal," "liberal," or "slightly liberal," and the second corresponding to "extremely conservative," "conservative," or "slightly conservative." The omitted category, unless otherwise noted, is "moderate."

In order to evaluate the influence of religious belief, specifically with respect to scriptural interpretation, a three-level GSS measure of the respondent’s beliefs about the nature of the Bible was employed: the answer alternatives presented were, first, "the Bible is an ancient book of fables, legends, history, and moral precepts recorded by men," (referred to, for the sake of brevity, as "fables"), second, "the Bible is the inspired word of God but not everything in it should be taken literally, word for word," (referred to as "inspired"), and third, "the Bible is the actual
word of God and is to be taken literally, word for word" (referred to as "literal"). The omitted category, unless otherwise noted, is "inspired."

To evaluate the effect of religious attendance, intended partly as a proxy for religious orientation, responses to the question, "How often do you attend religious services?" were categorized into three levels: "never" or "less than once a year" was categorized as "low" attendance, while "every week" or "more than once a week" were categorized as "high" attendance (respectively, these values correspond to the 25th and 75th percentiles). The omitted category is the "middle" level, responses between the "low" and "high" categories.

Additional Variables

Indicator controls for female sex and nonwhite race were created, along with continuous measures of age and years of education. Given the salience of and rapid pace of change regarding sexual minority issues during the period in which the data were collected, indicators were also included for each of the survey years. Given the personal nature of some of the survey items, it seemed plausible that responses to interviews administered over the phone might be answered differently than interviews administered in person; therefore, an indicator variable coded "1" for phone interviews was also included. Also, in order to control for the possibility that any apparent influence of religious attendance and Bible interpretation on the dependent variables might merely be a proxy for religious denomination or general attitudes towards sex, indicators for "Catholic" religious denomination and "disapproval of pre-marital sex" were also included in the regression models.

In the following section, I present results from tests of each of the hypotheses previously described, and discuss the implications.
Results and Discussion

In order to evaluate the influence of political ideology, religious attendance, and Bible interpretation on expressions of sexual orientation, as described in the hypotheses above, I regressed each of the dependent variables on the variables of interest and the controls, using rare events logit estimation. The estimated regression coefficients and standard errors for each of these models are included in the table labeled "Appendix E. Rare Events Logit Regression Models," but given that logit estimates are not directly interpretable and are dependent upon the values of all covariates, the substantive interpretation of these estimates that follows will be best understood with reference to Figures 1 through 5.

Explaining Sexual Identity

To begin, I considered the influences of the independent variables of interest on the probability that an individual identified as gay or lesbian, as shown in Figure 1 (or the probability of identifying as bisexual, shown in Figure 2). The marginal effects of several changes in these variables are depicted in these figures, with a given change described along the y-axis and the estimated effect on the probability of identifying as gay or lesbian (or bisexual) for that change displayed as a point-and-whisker plot along the x-axis. The whiskers define a 95% confidence interval for the marginal effect estimate. These marginal effects, unless otherwise specified, were estimated while holding constant the other variables at either their sample mean or median, as described in the note at the bottom of each figure. Statistically significant marginal effects can be easily identified--their confidence intervals do not cross zero. For example, in Figure 1, a change in ideology from conservative to liberal is statistically significant at the 95% confidence level, shown in the first row of the figure. This corresponds to a 2.3 percentage point estimated increase in the probability of identifying as gay or lesbian, holding all else constant. This may not seem like
much; of course, it is quite small in absolute terms. It is, however, a large *relative* increase when one considers how unlikely identification as gay or lesbian is in the broad population--barely 1.5% based upon this sample. This distinction between absolute and relative changes in probability can be significant when analyzing rare events, and so it is common to report the estimated *relative risk* along with the estimated change in absolute probability. In these figures, the relative risk is listed to the right of each statistically significant probability estimate, "rr = 5.16" in the first row, for example. The relative risk in this example indicates that individuals with liberal political ideologies were more than five times as likely to identify as gay or lesbian compared to individuals with conservative political ideologies who were otherwise identical in their other covarying characteristics.

Furthermore, as can be seen in the last row of Figure 1, a change in ideology from conservative to liberal when accompanied by a change in Bible interpretation from "literal word" to "book of fables" and a decrease in religious attendance from high to low is also statistically significant, and the relative risk of 5.93 indicates that such individuals were nearly six times as likely to identify as gay or lesbian compared to individuals with conservative ideology, "literal" Bible interpretation, and high religious attendance, holding all else constant.

In Figure 2, political ideology can also be seen to be influential, with individuals who held liberal political views 2.14 times as likely to identify as bisexual as individuals with conservative ideology. Though the effect is not as large as in the first case, it is still consistent with the prediction of $H_1$, that liberal ideology appears to make identification as gay, lesbian, or bisexual significantly more likely, all else being equal. By implication, then, conservative ideology tends to reduce the probability of identification as a sexual minority.
The influence of the religion variables on identification is subtler, though still mostly as predicted. As Figure 1 shows, when ideology is held constant at "moderate" (the median), neither Bible interpretation nor religious attendance are statistically significant predictors of gay or lesbian identity; but in Figure 2, ideologically moderate individuals who do not regularly attend religious services and who do not interpret the Bible literally are four times as likely to identify as bisexual as are Bible "literalists" who attend religious services frequently. Furthermore, if these individuals have liberal political views, their probability of identifying as bisexual doubles. It is unclear if the difference between identifying as bisexual versus gay or lesbian means that a different causal mechanism is at work in the two cases; regardless, this evidence does support the predictions of both \( H_1 \) and \( H_2 \) as it suggests that identifying as gay, lesbian, or bisexual is heavily influenced by political ideology, and that the effect of ideology may be particularly strong in the absence of literal Bible interpretation and frequent religious activity.

**Explaining Sexual Behavior**

Turning next to the prediction of same-sex sexual behavior, shown in Figure 3, it appears that ideology again plays a significant role, and some influence from the religion variables is also evident. In this case, the dependent variable is the probability the individual had any (or only) same-sex sexual partners in the preceding five years. Individuals with liberal political views were twice as likely as those with conservative views, holding all else constant, to have had same-sex sexual partners. Individuals who said the Bible is a "book of fables" and who were not religiously active were almost three times as likely as religiously active, Bible literalists to have engaged in same-sex sexual behavior. Note, however, that the partial effects of Bible interpretation and religious attendance are not, by themselves, significant. It seems that it is the combination of literal Bible interpretation and frequent religious attendance that diminishes the probability of
same-sex sexual behavior; for the specified covariate values, a Bible literalist with high religious attendance is only one-third as likely to have had same-sex sexual partners as a "fables" interpreter with low attendance.

It appears that the religious variables have more influence on sexual behavior than they do on sexual identity. The effects of the ideology and religion variables, furthermore, appear to be additive, with individuals whose combination of liberal ideology, "fables" interpretation, and low attendance being more than six times as likely to have had same-sex sexual contact compared to those with conservative ideology, literal Bible interpretations, and frequent religious attendance. Based upon these findings, both $H_3$ and $H_4$ appear to be strongly supported.

Explaining "LGB-Celibate" and "Downlow"

If, as this evidence suggests, conservative political ideology considerably reduces the probability of identifying as gay, lesbian, or bisexual as well as the probability of having same-sex sexual partners, and if Bible interpretation and religious attendance both are implicated in decisions about sexual behavior, then various combinations of these variables might well explain the choice of some same-sex attracted individuals to identify as lesbian, gay, or bisexual while remaining celibate (LGB-celibate), as well as the choice of other same-sex-attracted individuals to identify as straight while engaging in same-sex sexual behavior (downlow).

In the regression model used to produce the estimates in Figure 4, the sample was limited to individuals who identify as gay, lesbian, or bisexual and the dependent variable was the

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85 As was previously mentioned, the controls for Catholic denomination and disapproval of premarital sex did not appear significant once ideology, religious activity, and Bible interpretation were held constant.

86 Given the small sample sizes for estimating this model and the next, the confidence intervals were estimated at 90%, thus increasing the probability of finding statistical significance, but decreasing the certainty about the estimates. Also, limiting the study group to LGB-identifiers in this case and to individuals with same-sex sexual partners in the next case may raise concerns about selection biasing. Though I considered employing a Heckman selection model in order to address this concern, such approaches are only effective if selection into the sample and the dependent variable of the “outcome” equation do not have identical predictors (Heckman 1974). As I cannot
probability that an LGB-identifying individual had no sexual partners (of any sex) in the preceding year.\textsuperscript{87} As expected, conservative political ideology increased the probability that an individual who identified as lesbian, gay, or bisexual had been sexually celibate in the preceding year. The relative risk indicates that an ideologically conservative LGB identifier was about 2.8 times as likely as a liberal to have been celibate. The religious variables do not appear to have partial effects on this probability, but there is some evidence that they are jointly influential since the relative risk ratio that results from changing from liberal to conservative ideology is nearly doubled when Bible interpretation and religious attendance are also allowed to covary. This can be seen in Figure 4 by comparing the "rr" values of the first and last rows. Nevertheless, the choice to be LGB and celibate appears to largely be predicted by conservative ideology. Despite expectations, the religious variables are not as strongly implicated here.\textsuperscript{88}

Among individuals with same-sex sexual partners in the preceding year, ideology has an even larger impact on the probability of identifying as straight (this is approximately the probability of being "downlow" among this population), as seen in Figure 5. Changing ideology from liberal to conservative while holding the religious variables at their median values is associated with an increase in the probability of straight identification of nearly 40 percentage points. The relative

\textsuperscript{87} A regression predicting celibacy in the previous five years was also run, and produced similarly signed estimates, but the number of individuals in this subgroup was considerably smaller, reducing the statistical power of the analysis. Since sexual identity was only measured once, at the time of the survey, but might well have changed during the period of recorded sexual behavior, I chose to focus the analysis on sexual behavior in the preceding year in order to increase the probability that the reported celibacy was contemporaneous with LGB identification.

\textsuperscript{88} This could, in part, be a result of the fact that while some religions may practically require same-sex-attracted members to publicly avow celibacy if they wish to remain members in good standing, same-sex sexual behavior may, of course, still be going on privately. These results may also be due to the fact that some of the religions that officially endorse LGB identification while celibate, i.e., Mormons and Catholics, are not Bible literalists. Furthermore, evangelicals, who are typically literalists, may condemn both identification and behavior.
risk indicates that conservatives with same-sex partners are more than four times as likely as liberals with same-sex partners to identify as straight, holding all else constant.

The religious variables also appear to be highly influential in predicting whether or not an individual with same-sex sexual partners will be "downlow." This is seen most dramatically in the last row of Figure 5 where changing from liberal to conservative, from "inspired" to "literal" Bible interpretations, and from low to high religious attendance is associated with an increase in the probability of "downlow" of more than 80 percentage points; the risk ratio indicates that such individuals are twenty-two times as likely to identify as straight as the baseline category. Also, the results are consistent with the expectation that an extrinsic religious orientation is likely to lead individuals towards choosing to be downlow for among Bible literalists with same-sex partners, individuals with high attendance are 7.5 times as likely as individuals with low attendance to identify as straight, holding all else constant. Thus, $H_5$, $H_6$, and $H_7$ are all supported by the evidence presented.

**Testing Model Resistance**

To further validate the model specification used in the above analysis and to address reviewer concerns, I estimated the above model for a number of subpopulations of interest and I also estimated a number of alternative model specifications. These additional tests are described below.

**Subpopulations of Interest.** Since it is plausible that the effects of ideology and religious belief might vary across certain relevant subpopulations, I re-ran the model from the above analysis for relevant subsamples to see if the substantive results varied. Given the small sample of celibate LGB respondents, I only estimated the dependent variables of LGB identity and "downlow."
First, I conditioned upon age, dividing the sample between those who were aged 30 years or younger and those older than 30, since ideology is likely to be less stable for younger people, but more likely to stabilize as people get older. For both groups, conservative ideology still increased the probability of being "downlow" and decreased the probability of identifying as LGB. Religious attendance was significant in the expected directions on both variables for older people, but not for younger. The only finding that was somewhat inconsistent with the previously presented results was that young people who said the Bible was a "book of fables" were less likely to be downlow, but older people with "fables" Bible beliefs were more likely to be downlow, suggesting that the influence of Bible beliefs could vary by age. I do not have a theoretical explanation for this effect, but it may warrant additional study in the future.

Next, I conditioned upon whether the respondent lived in a rural or non-rural community at age 16, reasoning that the social aspects of religion and politics in smaller communities might be particularly significant. In this case, ideology was again significant in the expected directions for both LGB identity and "downlow" for both rural and non-rural respondents. Religious attendance was negatively associated with identifying as lesbian, gay, or bisexual, regardless of community type, and positively associated with being "downlow," but only for rural respondents. Finally, while "literal word" Bible beliefs decreased the probability of identifying as LGB, regardless of community type, the influence of "Book of fables" Bible beliefs again were surprising: rural respondents with "fables" beliefs were more likely to be "downlow." As with the age subset, a closer analysis of the "book of fables" beliefs may be called for.

Finally, I conditioned on being raised in a fundamentalist religion as opposed to non-fundamentalist religions; and I conditioned on being raised in strongly, moderately, and weakly religious regions of the country (these regions were identified by finding the mean "strength of
religious affiliation" for all GSS respondents in that particular region). In both cases, ideology again showed significant results in the expected direction for all subsets. Given that the subsamples were conditioned on the pre-adult religious variables, it is perhaps not surprising that the current religion variables in the basic model showed weaker influence in these cases. However, for respondents who were raised in fundamentalist religions and for respondents who were raised in moderately religious parts of the country, higher levels of religious attendance were associated with lower likelihoods of identifying as lesbian, gay or bisexual. There were no other substantive differences in these subsets.

In summary, the analysis of these subsets did not substantially challenge the results presented above. Ideology's effect on both identifying as LGB and being downlow was still clear. Religious attendance was still positively associated with being downlow in most cases and negatively associated with identifying as LGB in many cases, and "literal word" Bible beliefs appeared to reduce the probability of identifying as LGB in a few cases. Only the influence of "book of fables" Bible beliefs on being "downlow" was surprising, and then only in two of the subsets examined.

**Alternative Model Specifications.** I also estimated two sets of models with alternative specifications. The first set of alternative specifications were intended to consider whether ideology's apparent impact on the dependent variables was actually a proxy for pre-adult socialization factors that might simultaneously determine ideology and sexual orientation. I added a number of variables to control for such factors, specifically: 1) the fundamentalism or liberalism of a respondent's religion as a teenager (the General Social Survey constructs this variable from an item that asks the respondent's religion at age 16); 2) the type of community a respondent lived in at age 16, ranging from country or farm locations to big cities; and 3) the region of the country in which a respondent was raised (four regions based upon U.S. Census
divisions were constructed) with an additional control for living outside the United States. The addition of these items to the standard models produced no substantive differences in the interpretation: the significance of the ideology variables was unchanged, and the coefficients on the additional controls were never statistically significant, suggesting that ideology's influence on sexual orientation is not merely a proxy for these pre-adult socialization factors. Therefore, this first alternate specification has not been reported here.

The second set of alternative specifications were intended to evaluate whether the frequency of religious attendance had an interacted effect with the Bible beliefs and the fundamentalism or liberalism of a respondent's current religion. It could be the case, for example, that the influence of frequent religious attendance on sexual orientation might vary based on the belief system of particular religions. First, the control for religious attendance was interacted with the control for Bible beliefs and substituted for the corresponding variables in the models above. Second, the control for religious attendance was interacted with a controls for the fundamentalism or liberalism of the respondent’s current religion and these were substituted in the above models. All of these alternative specifications produced results that were consistent with the substantive results discussed above and so these alternate model estimates are also omitted.

**Conclusion**

The analysis and evidence presented supports a theory that may explain how some individuals who experience same-sex attraction choose to reconcile that attraction with their sexual identity and sexual behavior, the components that collectively represent sexual orientation. To summarize, there is strong evidence that liberal political ideology substantially increases the probability that a same-sex-attracted individual will choose to identify as bisexual, gay, or lesbian, while conservative political ideology increases the probability of identifying as straight. Similarly,
political ideology appears to influence decisions among sexual minorities about whether to be celibate or sexually active with same-sex sexual partners, with liberal ideology increasing the probability of the latter. Religious belief and intrinsic-extrinsic religious orientation also play a role, with Bible literalism and intrinsic religious orientation decreasing the probability of recent same-sex sexual behavior and increasing the probability of celibacy among LGB-identifiers, and with extrinsic religious orientation increasing the probability of individuals being "downlow," particularly among the politically conservative and those who interpret the Bible literally.

These are, of course, limits that one should keep in mind when reviewing this evidence. First, it is not possible using cross-sectional data alone to positively determine the direction of causation. That is to say, I cannot eliminate the possibility that a same-sex-attracted individual's decision about how to express his or her sexual orientation might cause him or her to adopt particular political ideologies or religious beliefs. In the absence of definitive proof of causal direction, however, we can still evaluate the plausibility of the causal theory being presented. In my view, previous research into both ideology and religious belief support the view that they are likely to be causally prior to the expression of sexual identity and sexual behavior, even if sexual attraction likely precedes (or, if there is a genetic component to both sexual attraction and belief, potentially coincides with) ideology, religious belief, and religious orientation. Furthermore, while previous studies have shown ideology, religious belief, sexual identity, and sexual behavior to have variation over the lifecycle, it appears that ideology and religious belief are more likely to stabilize (or "crystallize") by one's mid-20s, while it is not uncommon for sexual identity and behavior to continue to vary into one's 30s. If the true causal direction is from sexual orientation to political and religious belief, then we would expect to find the reverse to be true, that is, that
political and religious belief would continue to vary until after sexual identity and sexual behavior have stabilized.

Though the political study of sexual minorities is still in its infancy, it is reasonable to expect that the decisions that a same-sex-attracted individual makes about reconciling and expressing his or her own sexual orientation might have great influence on his or her politics, but this analysis and the evidence presented also reveals that political attitudes religious beliefs, and religious orientation may themselves exert considerable influence on the individual's coming out process.
Appendix C: On Measurement Error

Given the relatively small subsample sizes for three of the four sexual orientation categories, the influence of even small errors in measurement of sex, sexual identity and sexual behavior, whether due to coder error or the unwillingness or inability of respondents to answer accurately, could have outsized influence on the results of this analysis. In order to reduce the risk that social desirability bias might make respondents unwilling to answer the sexual behavior items honestly, the General Social Survey asked those questions in a self-administered, sealed questionnaire, rather than via the human interviewer, a procedure that has been found to improve the validity of sexual behavior survey measures (Fenton et al. 2001). Furthermore, two measurement validity studies of the sexual behavior items in the GSS have found that the self-administered sexual behavior questionnaire had very high completion rates, and that non-response, when it occurred, was not correlated with sexual behavior (heterosexual or homosexual), sexual attitudes, religious fundamentalism, or marital infidelity, though response was somewhat lower among women (Smith 1988; Smith 1992).

Even items as seemingly straight-forward as the respondent’s sex are potential sources of measurement error, but a recent analysis of the reliability of General Social Survey items over a three-wave panel from 2006 to 2010 reported that responses to the “factual” demographic items, including sex, were extremely consistent, with polychoric correlations between waves very close to the theoretical maximum of 1.0 (Hout and Hastings 2012), indicating extremely high consistency in these measures.

With respect to the measure of sexual behavior and the identification of the "downlow" respondents, the validation procedure described above in which the responses to two different sets of questions were compared should have reduced the incidence of random measurement
error. As for sexual identity, the proportions that identified as gay, lesbian, or bisexual are similar to estimated proportions from other recent studies (Gates 2011; Gallup 2012).

While it would be desirable to be able to compare the estimated proportions from this study against other research, almost all public health surveys fail to measure sexual identity and there are also very few that have attempted to study women who have sex with women, facts which I confirmed with Dr. Randall Sell at Drexel University’s School of Public Health. While there are a number of public health studies that have attempted to quantify the proportion of men who have had male sexual partners, I could find only one population-based study that also measured the sexual identity of the respondents. Pathela et al. (2006) examined the 2003 Community Health Survey of a random sample of men in New York City and found that nearly 1 in 10 straight-identifying men surveyed reported having sex with at least one male partner in the preceding year. That proportion is much higher than the proportion found in this study using GSS data, but the Community Health Survey only examined men living in New York City who could be reached by telephone, a population that is highly unlikely to be representative of the general population or even of the population in other U.S. Cities. Furthermore, Pathela et al. (2006) noted that the sexual identity question was asked relatively early in the survey and suggested the possibility that measurement error could have inflated the straight-identifying proportion: "it is possible that if identity were ascertained later, when a greater rapport had been established with the interviewer, more men who have sex with men would have self-identified as gay" (422).

89 Randall Sell, Associate Professor of Public Health, Drexel University, personal communication with the author, June 8, 2013.
90 Personal communications (June 8, 2013) with Dr. Ken Sherrill of Hunter College, and Dr. Gregory Herek of the University of California Davis, also failed to identify any other studies for comparison.
Absent any other estimates of the "downlow" population against which to compare, the estimate from the General Social Survey appears to be the most representative available. Furthermore, there is reason to believe that GSS estimates of sexual behavior alone are reasonably accurate: a recent public health study examined a quantitative meta-analysis of 7 population-based surveys, including the GSS from 1988 to 2008 (Purcell et al. 2012). Their analysis showed the GSS estimates to be very close to the combined estimates from all seven surveys: in the preceding five years, the GSS data estimated 3.8% of men had same-sex sexual partners compared to the overall estimate of 3.9%; and in the preceding one year, the GSS data estimated 3.2% compared to the overall estimate of 2.9%.

Overall, while variability is always inherent in survey measures, I believe that the research cited above supports the view that the relevant GSS measures were acceptable.
## Table 1. Descriptive Statistics of Sexual Identity & Sexual Behavior Groups, by Sex.

<table>
<thead>
<tr>
<th></th>
<th>“Downlow”</th>
<th>LGB &amp; Celibate*</th>
<th>LGB &amp; Not Celibate*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Both</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>0.33</td>
<td>0.67</td>
<td>n/a</td>
</tr>
<tr>
<td>Women</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 30</td>
<td>0.38</td>
<td>0.49</td>
<td>0.46</td>
</tr>
<tr>
<td>Over 60</td>
<td>0.07</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td><strong>Highest degree earned</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>0.24</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>High school or junior college</td>
<td>0.54</td>
<td>0.72</td>
<td>0.66</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>0.23</td>
<td>0.12</td>
<td>0.15</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>0</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td><strong>Individual Income (constant $)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25th percentile</td>
<td>0.37</td>
<td>0.38</td>
<td>0.38</td>
</tr>
<tr>
<td>Above 75th percentile</td>
<td>0.27</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.24</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>White</td>
<td>0.47</td>
<td>0.84</td>
<td>0.72</td>
</tr>
<tr>
<td>Other race</td>
<td>0.29</td>
<td>0.03</td>
<td>0.12</td>
</tr>
<tr>
<td><strong>Hispanic/Latino ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raised in rural area</td>
<td>0.36</td>
<td>0.43</td>
<td>0.41</td>
</tr>
<tr>
<td>Raised in fundamentalist religion</td>
<td>0.07</td>
<td>0.31</td>
<td>0.23</td>
</tr>
<tr>
<td><strong>Sexual Behavior (preceding 5 yrs.)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opposite-sex partners only</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Same- and opposite sex partners</td>
<td>0.35</td>
<td>0.44</td>
<td>0.41</td>
</tr>
<tr>
<td>Same-sex partners only</td>
<td>0.65</td>
<td>0.56</td>
<td>0.59</td>
</tr>
<tr>
<td>Celibate (5 years)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mean # of male partners since 18</td>
<td>4.9</td>
<td>6.3</td>
<td>5.8</td>
</tr>
<tr>
<td>Mean # of female partners since 18</td>
<td>4.4</td>
<td>1.6</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations.

* "Celibate" here refers to sexual behavior in the preceding year. Cells contain sample proportions, except for "Mean # of male/female partners since 18," and estimates are calculated using GSS survey non-response weights.
Figure 1. Marginal Effects of Ideology, Bible Interpretation, and Religious Attendance on the Probability of Identifying as Gay or Lesbian.

Figure 2. Marginal Effects of Ideology, Bible Interpretation, and Religious Attendance on the Probability of Identifying as Bisexual.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 95% confidence intervals of the predicted difference in probability resulting from the change specified to the left of each plot. Predictions are based on rare events logit regression estimates; unless otherwise specified above, controls for ideology, Bible interpretation, religious attendance, age, and education were held constant at their sample medians, and controls for all other covariates were held constant at their means. For changes that produced statistically significant probability differences, the relative risk (rr) is listed to the right of each plot.
Figure 3. Marginal Effects of Ideology, Bible Interpretation, and Religious Attendance on the Probability of Same-Sex Sexual Behavior in Preceding Five Years.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 95% confidence intervals of the predicted difference in probability resulting from the change specified to the left of each plot. Predictions are based on rare events logit regression estimates; unless otherwise specified above, controls for ideology, Bible interpretation, religious attendance, age, and education were held constant at their sample medians, and controls for all other covariates were held constant at their means. For changes that produced statistically significant probability differences, the relative risk (rr) is listed to the right of each plot.
Figure 4. Marginal Effects of Ideology, Bible Interpretation, and Religious Attendance on the Probability of Celibacy in Preceeding Year among LGB-Identifiers.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations. Plots represent 90% confidence intervals of the predicted difference in probability resulting from the change specified to the left of each plot. Predictions are based on rare events logit regression estimates; unless otherwise specified above, controls for ideology, Bible interpretation, religious attendance, age, and education were held constant at their sample medians, and controls for all other covariates were held constant at their means. For changes that produced statistically significant probability differences, the relative risk ($rr$) is listed to the right of each plot.
Figure 5. Marginal Effects of Ideology, Bible Interpretation, and Religious Attendance on the Probability of Straight Identity among Individuals with Same-Sex Sexual Partners in the Preceeding Year.

Source: General Social Survey Cumulative Datafile (2008-2012) and author’s calculations.
Plots represent 90% confidence intervals of the predicted difference in probability resulting from the change specified to the left of each plot. Predictions are based on rare events logit regression estimates; unless otherwise specified above, controls for ideology, Bible interpretation, religious attendance, age, and education were held constant at their sample medians, and controls for all other covariates were held constant at their means. For changes that produced statistically significant probability differences, the relative risk (rr) is listed to the right of each plot.
Appendix E: Rare Events Logit Regression Models

<table>
<thead>
<tr>
<th></th>
<th>Gay/Lesbian Identity</th>
<th>Bisexual Identity</th>
<th>Same-Sex Behavior in preceding 5 years</th>
<th>Celibacy (subsample is limited to LGB Identity)</th>
<th>Straight Identity or “Downlow” (subsample is limited to same-sex behavior in preceding year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberal ideology</td>
<td>1.168***</td>
<td>0.347</td>
<td>0.722***</td>
<td>-0.843</td>
<td>0.0207</td>
</tr>
<tr>
<td></td>
<td>(0.350)</td>
<td>(0.294)</td>
<td>(0.227)</td>
<td>(0.605)</td>
<td>(0.796)</td>
</tr>
<tr>
<td>Conservative ideology</td>
<td>-0.505</td>
<td>-0.453</td>
<td>-0.0624</td>
<td>0.380</td>
<td>2.119**</td>
</tr>
<tr>
<td></td>
<td>(0.509)</td>
<td>(0.393)</td>
<td>(0.293)</td>
<td>(0.577)</td>
<td>(0.969)</td>
</tr>
<tr>
<td>Bible is “a book of fables”</td>
<td>-0.168</td>
<td>0.203</td>
<td>-0.0467</td>
<td>1.0228</td>
<td>1.229</td>
</tr>
<tr>
<td></td>
<td>(0.350)</td>
<td>(0.332)</td>
<td>(0.247)</td>
<td>(0.549)</td>
<td>(0.800)</td>
</tr>
<tr>
<td>Bible is “literal word of God”</td>
<td>-0.531</td>
<td>-0.547</td>
<td>-0.421</td>
<td>0.372</td>
<td>0.360</td>
</tr>
<tr>
<td></td>
<td>(0.506)</td>
<td>(0.392)</td>
<td>(0.284)</td>
<td>(0.727)</td>
<td>(1.001)</td>
</tr>
<tr>
<td>No or low religious attendance</td>
<td>0.151</td>
<td>0.306</td>
<td>0.214</td>
<td>-0.0186</td>
<td>-1.298</td>
</tr>
<tr>
<td></td>
<td>(0.330)</td>
<td>(0.295)</td>
<td>(0.230)</td>
<td>(0.531)</td>
<td>(0.927)</td>
</tr>
<tr>
<td>Frequent religious attendance</td>
<td>0.344</td>
<td>-0.312</td>
<td>-0.496</td>
<td>0.636</td>
<td>1.534</td>
</tr>
<tr>
<td></td>
<td>(0.406)</td>
<td>(0.487)</td>
<td>(0.343)</td>
<td>(0.680)</td>
<td>(1.325)</td>
</tr>
<tr>
<td>Age</td>
<td>-0.0170**</td>
<td>-0.378***</td>
<td>-0.0328***</td>
<td>0.0181</td>
<td>-0.0425</td>
</tr>
<tr>
<td></td>
<td>(0.00716)</td>
<td>(0.009)</td>
<td>(0.00599)</td>
<td>(0.0211)</td>
<td>(0.0371)</td>
</tr>
<tr>
<td>Non-white race</td>
<td>-0.433</td>
<td>0.140</td>
<td>0.336</td>
<td>0.138</td>
<td>0.0169</td>
</tr>
<tr>
<td></td>
<td>(0.411)</td>
<td>(0.302)</td>
<td>(0.217)</td>
<td>(0.656)</td>
<td>(0.857)</td>
</tr>
<tr>
<td>Female</td>
<td>-0.656**</td>
<td>0.487*</td>
<td>0.145</td>
<td>-0.386</td>
<td>0.336</td>
</tr>
<tr>
<td></td>
<td>(0.295)</td>
<td>(0.278)</td>
<td>(0.206)</td>
<td>(0.486)</td>
<td>(0.777)</td>
</tr>
<tr>
<td>Education (in years)</td>
<td>0.143***</td>
<td>-0.00546</td>
<td>0.0527</td>
<td>0.0490</td>
<td>-0.0601</td>
</tr>
<tr>
<td></td>
<td>(0.0492)</td>
<td>(0.0591)</td>
<td>(0.0322)</td>
<td>(0.0893)</td>
<td>(0.154)</td>
</tr>
<tr>
<td>Indicator for phone interview</td>
<td>-0.207</td>
<td>-0.257</td>
<td>0.0959</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.465)</td>
<td>(0.477)</td>
<td>(0.307)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator for 2012 wave</td>
<td>-0.308</td>
<td>0.148</td>
<td>-0.0595</td>
<td>-0.394</td>
<td>-0.611</td>
</tr>
<tr>
<td></td>
<td>(0.350)</td>
<td>(0.315)</td>
<td>(0.241)</td>
<td>(0.600)</td>
<td>(0.719)</td>
</tr>
<tr>
<td>Indicator for 2008 wave</td>
<td>0.0571</td>
<td>0.107</td>
<td>0.0520</td>
<td>0.367</td>
<td>-1.075</td>
</tr>
<tr>
<td></td>
<td>(0.321)</td>
<td>(0.319)</td>
<td>(0.236)</td>
<td>(0.514)</td>
<td>(1.140)</td>
</tr>
<tr>
<td>Catholic</td>
<td>-0.157</td>
<td>-0.0272</td>
<td>-0.212</td>
<td>0.271</td>
<td>-0.408</td>
</tr>
<tr>
<td></td>
<td>(0.376)</td>
<td>(0.319)</td>
<td>(0.249)</td>
<td>(0.555)</td>
<td>(0.685)</td>
</tr>
<tr>
<td>Believes that premarital sex is wrong</td>
<td>-0.222</td>
<td>0.117</td>
<td>-0.0913</td>
<td>0.122</td>
<td>-1.187</td>
</tr>
<tr>
<td></td>
<td>(0.338)</td>
<td>(0.327)</td>
<td>(0.238)</td>
<td>(0.476)</td>
<td>(1.083)</td>
</tr>
<tr>
<td>Constant</td>
<td>-5.026***</td>
<td>-2.611***</td>
<td>-2.839***</td>
<td>-2.826</td>
<td>1.331</td>
</tr>
<tr>
<td></td>
<td>(0.898)</td>
<td>(0.937)</td>
<td>(0.573)</td>
<td>(1.816)</td>
<td>(2.309)</td>
</tr>
<tr>
<td>Observations</td>
<td>3284</td>
<td>3284</td>
<td>3198</td>
<td>114</td>
<td>81</td>
</tr>
</tbody>
</table>

Source: General Social Survey Cumulative Datafile (2008-2010) and author’s calculations. Numbers in cells are rare events logistic regression coefficients with robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
References for Part III


Smith, Tom W., Peter Marsden, Michael Hout, and Jibum Kim. 2013. General Social Surveys, 2008-2012 [machine-readable data file]. Principal Investigator, Tom W. Smith; Co-
Principal Investigator, Peter V. Marsden; Co-Principal Investigator, Michael Hout; Sponsored by National Science Foundation. --NORC ed.-- Chicago: National Opinion Research Center [producer]; Storrs, CT: The Roper Center for Public Opinion Research, University of Connecticut [distributor]. 1 data file (57,061 logical records) + 1 codebook (3,432 p.). — (National Data Program for the Social Sciences, No. 21).


