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Trends in Abortion Attitudes by Race and Gender: A Reassessment Over a Four-Decade Period

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Abstract

The purpose of this paper is to reassess the interactive impact of race and gender on abortion attitudes over time. Data from the GSS are used to compare shifts in abortion attitudes of White and Black males and females over a four-decade period. Overall results suggest gender to be the stronger predictor of abortion attitudes. While maintaining similar attitudes toward abortion, White and Black males maintain more conservative attitudes than their female counterparts. Looking at trends, however, suggest that considering race and gender alone limits the understanding of abortion attitudes among these social groups. Results by decade reveal great shifts for White females in relation to Black females. White females and White males to a lesser extent initially appear more liberal in their views toward abortion; however, a shift over the decades produces a convergence and then a reversal, where Black females eventually become more liberal in the 1990s. Black males consistently reveal more conservative attitudes over the four-decade period than Black females and that trend appears to be holding. However, most interestingly and an area for further research, results suggest that abortion attitudes may actually be re-converging.

Keywords: Abortion Attitudes, Pro-Life, Pro-Choice, Race and Gender

1. Introduction

Since the 1970s, public attitudes have become more liberal toward many social issues, including crime and punishment, gender roles, race relations, and sexual behaviors (Bolzendahl & Myers, 2004; DiMaggio, Evans & Bryson, 1996). Despite this trend toward liberalization, abortion remains a polarizing issue (Bolzendahl & Myers, 2004). While there is scholarly debate over whether or not abortion has become an *increasingly* polarizing issue, resulting in what media have termed "culture wars," (see DiMaggio, Evans & Bryson, 1996; Mouw & Sobel, 2001), there is little evidence of convergence or liberalization in abortion attitudes in recent decades (Bolzendahl & Myers, 2004).

Abortion attitudes are also found to vary by race and gender. Earlier research generally found Blacks to be less supportive of abortion than Whites (Combs & Welch, 1982; Hall & Feree, 1986; Secret, 1987). Whereas some have found evidence of race convergence (Combs & Welch, 1982), mainly due to increased conservatism among Whites (Boggess & Bradner, 2000; Wilcox, 1990), others find significant race differences once other factors are controlled (Hall & Feree, 1986). More recent research finds evidence of a race reversal in abortion attitudes, with Blacks reporting greater support than Whites (Strickler & Danigelis, 2002). Most studies find gender alone to be a poor predictor of abortion attitudes (Cook, Jelen & Wilcox, 1992; Ebaugh & Haney, 1980; Strickler & Danigelis, 2002; Walzer, 1994), however some suggest that men hold slightly more pro-choice views than women (Craig and O'Brien, 1993), especially single men (Hurtel & Russell, 1999). Research on the interaction of race and gender suggests Black men are less supportive than White men (Lynxwiler & Gay, 1994; Wilcox, 1990) whereas Black women are more supportive than White women (Wilcox, 1990). A more recent study of males aged 15-19 suggests a reversal, with White males holding more conservative views than Black or Hispanic males (Boggess & Bradner, 2000).

Research also reveals a convergence in recent years among Black and White men and women regarding a variety of topics, including gender-role ideologies (Carter, Corra & Carter, 2009), women's labor force participation (Dugger, 1988), and marital happiness (Corra et al., forthcoming). The purpose of this paper is to examine over-time trends in attitudes toward abortion by race and gender. Our goal is to discern whether attitudes toward abortion follow the general pattern of convergence observed in other social realms, or whether race and gender differences abortion attitudes remain distinct over time. The results will be informative for understanding how abortion attitudes are similar to or different from other attitudinal issues and for assessing the continuing significance of social position on beliefs and attitudes toward social phenomena.

This project provides two main contributions to the literature. First, previous research on the interaction of race and gender on abortion attitudes has primarily focused on comparing White women to Black women (Lynxwiler and Gay, 1994) and White men to Black men (Boggess and Bradner, 2000). The current study examines all four groups in relation to each other to better examine the impact of group position on abortion attitudes. Second, trends in race and gender differences in abortion attitudes have been analyzed through the 1970s, 80s, and 90s, but little is known about how group differences have changed or stayed the same in

the current decade. The current study examines trends in group attitudes across the four-decade period from the 1970s through the 2000s. 2. Literature Review

2. 1 Trends in Abortion Attitudes

Attitudes toward abortion have shifted in recent decades for various reasons, including increases in female labor force participation, nonmarital sexual activity, and secularization and education (Strickler & Danigelis, 2002). Nevertheless, there is a current, widely publicized trend in favor of restoring traditional "family values" (Strickler & Danigelis, 2002) that, at least in the media, has led to increasing support for overturning *Roe v. Wade*.

In the U.S. overall, people became more supportive of abortion between 1965 and 1972. Between 1973, when *Roe v. Wade* legalized abortion in all states, and 1980, opinions stayed relatively stable, followed by a slight decrease in support throughout the 1980s (Scott, 1998). This decrease may have been impacted by the anti-abortion stance taken by President Reagan (Jelen, Damore, & Lamatsch, 2002), increased pro-life activism (Strickler & Danigelis, 2002) and abeyance of the feminist movement (Taylor, 1989). The 1990s showed no dramatic shift in abortion attitudes but a slight liberalization in 1992 and in the last years of the decade (Shaw, 2003). From the mid-1990s to 2003, individuals identifying as pro-choice declined while those identifying as pro-life increased, and support for legal abortion decreased slightly (Shaw, 2003).

2.2 The Impact of Gender and Race on Abortion Attitudes

While we might expect women to hold more positive attitudes toward abortion than men since legalized abortion provides women the right to control their own bodies, much research finds no significant gender differences in abortion attitudes (Cook, Jelen & Wilcox, 1992; Ebaugh & Haney, 1980; Granberg & Granberg, 1985; Strickler & Danigelis, 2002; Walzer, 1994). Where gender difference is found, men tend to report slightly more support for abortion than women (Craig & O'Brien, 1993), particularly among samples who are single (Hertel & Russell, 1999), young adults (Misra & Hohman, 2000) and college students (Carlton, Nelson & Coleman, 2000). However, female college students appear more likely than males to support abortions after the first trimester (Carlton, Nelson, & Coleman, 2000). In addition, Hertel and Russell (1999) found women to be more pro-choice than men after workforce participation was controlled.

Feminist beliefs are more effective predictors of abortion attitudes than sex, with those who embrace feminist ideals being more pro-choice (Fine, 2006). Those who support traditional family and gender roles tend to oppose abortion (Wang, 2004), though allowances are made for maternal or fetal health risks (Ellison, Echevarria, & Smith, 2005). Women who stay home with their children are more likely than men and women with careers outside the home to identify as pro-life (Jelen, Damore, & Lamatsch, 2002).

Regarding race, African Americans appear to have shifted in their support for abortion over time (Gay & Lynxwiler, 1999; Lynxwiler & Gay, 1994), with recent studies indicating greater approval among Blacks than Whites (Strickler & Danigelis, 2002) compared to earlier studies that reported greater approval among Whites than Blacks (Combs & Welch, 1982;

Craig & O'Brien, 1993; Hall & Feree, 1986; Secret 1987). Race alone began to disappear as a predictor of abortion attitudes in the late 1990s (Bolzendahl & Myers, 2004; Wilcox 2000), but is related to religion and education (Kaplan, et al., 2001; Simien & Clawson, 2004).

Regarding the interaction of race and gender, some earlier research found Black women expressing more liberal attitudes toward abortion than White women (Wilcox, 1990), however, other research found no difference among Black and White women of childbearing age (Lynxwiler & Gay, 1994; Misra & Hohman, 2000) and greater conservatism among older Black women than older White women (Lynxwiler & Gay, 1994). Earlier research also found more liberal attitudes among White men than Black men (Lynxwiler & Gay, 1994; Wilcox 1990), however later research suggests a reversal. Among males aged 15-19, White males expressed greater support for abortion in 1988 compared to Black and Hispanic males, but less support in 1995 (Boggess & Bradner, 2000). This reversal resulted from increased conservatism among White males and no change among Black and Hispanic males.

2.3 Other Factors Related to Abortion Attitudes

Increased religiosity (Bahr & Marcos, 2003; Bolzendahl & Myers, 2004; Gay & Lynxwiler, 1999; Hess & Rueb, 2005; Sahar & Karasawa, 2005) and church attendance (Scott, 1998; Sullins, 1999) are related to decreased support for abortion. This relationship is found in studies of adolescent males (Boggess & Bradner, 2000), and individuals of both sexes who are Hispanic (Ellison, Echevarria, & Smith, 2005), African American (Clawson & Clark, 2003; Simien & Clawson, 2004), and college students (Misra & Hohman, 2000).

Political affiliation is also related to abortion attitudes, with Democrats being more likely than Republicans to support abortion (Sahar & Karasawa, 2005; Simien & Clawson, 2004). This is clear in the media, as political battles are fought publicly around this issue, and is also supported by research (Hess & Rueb, 2005; Jelen & Wilcox, 2003). Until recently, education was consistently related to increased support for abortion (Gay & Lynxwiler, 1999), and women's attitudes appear more affected by education than men's (Bolzendahl & Myers, 2004). However, surveys of college students are beginning to reveal increasing ambivalence and opposition toward abortion (Carlton, Nelson, & Coleman, 2000) and frequent church attendance diminishes the effect of education on abortion attitudes (Petersen, 2001). Nevertheless, some research continues to find a link between egalitarian beliefs and scientific knowledge acquired in school, resulting in greater support for abortion (Wang, 2004).

A consistent positive relationship between age and conservatism was found in the past (Sullins, 1999), however, recent studies show age becoming less of a predictor of abortion attitudes. As young people are increasingly opposing abortion, supporters are aging yet not changing their attitudes (Fine, 2006; Scott, 1998). Indeed, birth cohort appears to be a more consistent predictor of abortion attitudes than age (Scott, 1998). Further, when other factors are controlled, older people appear to have more positive attitudes toward abortion than younger people (Strickler and Danigelis, 2002).

Marital status and region, both which used to be predictors of abortion attitudes (Gay & Lynxwiler, 1999), are also becoming less important in recent years (Bolzendahl & Myers,

2004). Past research has also shown that race differences in abortion attitudes vary by region (Wilcox, 1992).

3. Purpose

The purpose of this paper is to examine over-time trends in abortion attitudes for White males, White females, Black males and Black females. Overall, the goals is to assess whether there is a growing liberalization and convergence in attitudes among these groups like those observed in other social realms, or whether race and gender differences in abortion attitudes remain static over time. The results will be informative for further teasing out the interactive impact of race and gender and to see if abortion attitudes react to change like other attitudinal issues, including shifting gender-role and racial attitudes.

4. Data and Methods

To assess the interactive impact of race and gender on abortion attitudes over a four-decade period, we use data collected by the General Social Survey (GSS, hereafter). The GSS is a randomly drawn representative sample of non-institutionalized English speaking adults in the United States (Davis & Smith, 2006). Because the National Opinion Research Center (NORC, hereafter) has been conducting the survey since 1972, this data worked very well in assessing the impact of independent variables on abortion attitudes over an extended time period. In particular, NORC collected data with the GSS annually from 1972 to 1994. After 1994, the GSS was offered biennially until its most recent availability in 2008.

An important aspect of this research is to assess change across a four-decade period. To assess change during this period, this research pools data into four periods or decades. For instance, all the years the GSS collected data in the 1970s were included as the 1970s decade. This same process was conducted to create pooled data for the 1980s, 1990s, and 2000s. Our over time trend analysis then assessed change in regression parameter estimates from one decade period to another. Furthermore, to more thoroughly asses change across time, the analysis compared all possible decade comparisons: 1970s v. 1980s; 1970s v. 1990s; 1970s v. 2000s; 1980s v. 1990s; 1980s v. 2000s; and 1990s v. 2000s. Pooling annual data into four time periods provides several benefits. One, the shift in the regression coefficients is easily understood and straightforward and provides an interesting picture of the major shifts over the time period. Two, pooling also improves the reliability of our results by reducing the impact of under sampling of Black respondents within any given year. The GSS has been criticized in the past for such undersampling (Kane & Kyyro, 2001).

4.1 Dependent Variable

Since 1972, the GSS has consistently collected data on attitudes toward abortion, thus making an overtime trend analysis possible. In particular, the GSS included seven questions assessing the level of support respondents have toward abortion across several distinct scenarios. Below are those seven questions.

Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if.

A. If there is a strong chance of serious defect in the baby?

B. If she is married and does not want any more children?

C. If the woman's own health is seriously endangered by the pregnancy?

D. If the family has a very low income and cannot afford any more children?

E. If she became pregnant as a result of rape?

F. If she is not married and does not want to marry the man?

G. The woman wants it for any reason?

Respondents were provided a dichotomous option for each item, with respondents being asked whether they thought abortion should be ("yes") or should not be ("no") made available with each scenario. Responses for each of these questions were then summed to create an overall Abortion Attitudes Index. With each response being receiving a value of 0 and 1, respectively, the Abortion Attitudes index score for each respondent could range from a minimum score of 0 to a maximum score of 7. Items were recoded so that higher scores (7) reflect more liberal response patterns while lower scores (0) reflect more conservative response patterns. That is, higher scores reflect greater support for the use of abortion regardless of scenario and lower scores equate to less support for the use of abortion regardless of scenario.

The composite index we use in this analysis appears to be a parsimonious one-factor measure of abortion attitudes. Subsequent analyses (available upon request) reveal a high level of consistency across the 7 items. A principal component analysis demonstrated that the first component had an eigenvalue greater than one (3.925), and it accounted for over 56 percent of the variance. A similar index to measure abortion attitudes over time has been used in past research (Lynxwiler & Gay, 1996**)**.

4.2 Independent Variables

In order to assess the independent impact of race and gender on abortion attitudes, several control variables noted in the literature as possibly confounding results were included in the models. Along with the four social categories (White men and women and Black men and women, which were created by collapsing to GSS variables: sex and race) this project included several control variables in the analysis, including age, education level, family income level, marital status, region of residency, level of urbanism residency and several others assessing religious affiliation and political views.

Previous research suggests age (Lynxwiler & Gay, 1994; Sullins, 1999), education (Kaplan et al., 2001; Wang, 2004), income, marital status (Hertel & Russell, 1999) and region of residency (Gay & Lynxwiler, 1999; Secret, 1987; Wilcox, 1992) may impact abortion attitudes. We treated the age and education variables as continuous variables. Age of respondents ranged from 18 to 89, with a mean age of 42.20 for the sample. Education level of the respondents ranged from 0 to 20, with a mean sample education level of 11.97. The family income level was treated as an ordinal variable with 12 categories, with the lower

categories ("1" = less than $1000) reflecting lower levels of income and higher categories ("12" = $25,000 or more) equating to higher levels of income (see Davis and Smith 2006 for all categories). The marital status, urban residency and regional residency variables were treated as dummy variables. For marital status, "1" equated to married individuals and "0" equated to individuals not married. The urban residency variable included two categories, "1" and "0" reflecting urban and non-urban residents, respectively. Region is also treated as a dummy variable with South ("1") being compared to all other regions ("0"). The South distinction follows that of the U.S. Census definition of South and non-South as well as past research (Carter & Corra, 2005; Lynxwiler & Gay, 1996; Tuch, 1987).

We also include other variables that have been particularly prominent in past research as having a significant impact on abortion attitudes, including attitudes about premarital sex (Marsiglio & Shehan, 1993), the presence or absence of children in the home (Ellison et al., 2005), and work status (Hertel & Russell, 1999; Jelen, Damore, & Lamatsch, 2002). This analysis includes one variable to assess attitudes toward premarital sex. Responses include four categories ranging from premarital sex is always wrong ("0") to premarital sex is not wrong at all ("3"). We combined three questions (babies, preteens, and teens) from the GSS to assess whether ('yes") or whether not ("no") the respondent has children under the age of 18 in the home. We treated work status as an ordinal variable with the following ranked categories: do not work ("0"), part-time employment ("1"), and full-time employment ("2").

Although conflicting, past research has shown level of religiosity and religious denomination to impact abortion attitudes of White and Black respondents differently (Combs & Welch, 1982; Lynxwiler & Gay, 1996). Thus, we use two variables from the GSS used in past research to assess level of religiosity. First, we included a variable that measured respondent's level of church attendance. This attendance variable was treated as an ordinal variable in our analysis, with lower scores equating to less attendance (0=never) and higher scores equating to greater attendance (8=more than once a week). Second, we included an item that asked respondent how fundamental, moderate or liberal they believed their church to be. This measure was treated as two dummy variables comparing fundamental ("1") and moderate ("1") to liberal ("0").

Consistent with past research, we also include two variables from the GSS assessing respondent's political viewpoint (Combs & Welch, 1982; Lynxwiler & Gay, 1996; Sahar & Karasawa, 2005; Simien & Clawson, 2004). We use a variable that asks respondents whether they think of themselves a liberal or conservative. This item was a Likert-type scale with seven categories ranging from extremely liberal ("0") to extremely conservative ("6"), with a moderate category for neutrality. We also assess political viewpoints by using a question from the GSS that asks respondents their political identification: Democrat ("0"), Independent ("1"), or Republican ("2").

Finally, we include a measure of feminist ideology, which is found in past research to relate to abortion attitudes (Fine, 2006; Wang, 2004). Similar to the analysis of Lynxwiler and Gay (1996), we include three questions from the GSS to create and index of feminist ideology.

Respondents were asked assess whether they strongly disagreed, disagreed, agreed or strongly agreed to several scenarios.

A. A working mother can establish just as warm and secure a relationship with her children as a mother who does not work.

B. A preschool child is likely to suffer if his or her mother works.

C. It is much better for everyone involved if the man is the achiever outside the home and the woman takes care of the home and family.

Responses for each scenario were recoded so that higher scores reflected greater belief in gender equality. Responses for each question were then collapsed into an index measuring feminist ideology. The overall feminist ideology index maintained a range of “0” to “9”, with lower scores reflecting more conservative or less feminist beliefs and high scores equating to more liberal or greater feminist beliefs.

5. Results

5.1 Descriptive Statistics

Figure 1 presents unadjusted abortion attitude mean scores for each of the social groups, White males, White females, Black males, and Black females, for each decade included in the analysis.(Note 1) The mean scores across the decades provide an initial observation of over time trends in abortion attitudes by each of the social groups without controlling for extraneous compositional variables. Again, note that higher mean scores indicate pro-abortion attitudes, whereas lower mean scores indicate lower levels of support for abortion.

Overall, a few notable observations can be made. First, White males appear to be the most liberal social group when it comes to abortion attitude and this seems to hold across each decade under analyses. White females appear to be the second most liberal social group over the four decade period followed closely by Black males and females who, with the exception of the 2000s, express quite similar abortion attitudes over the same time period.

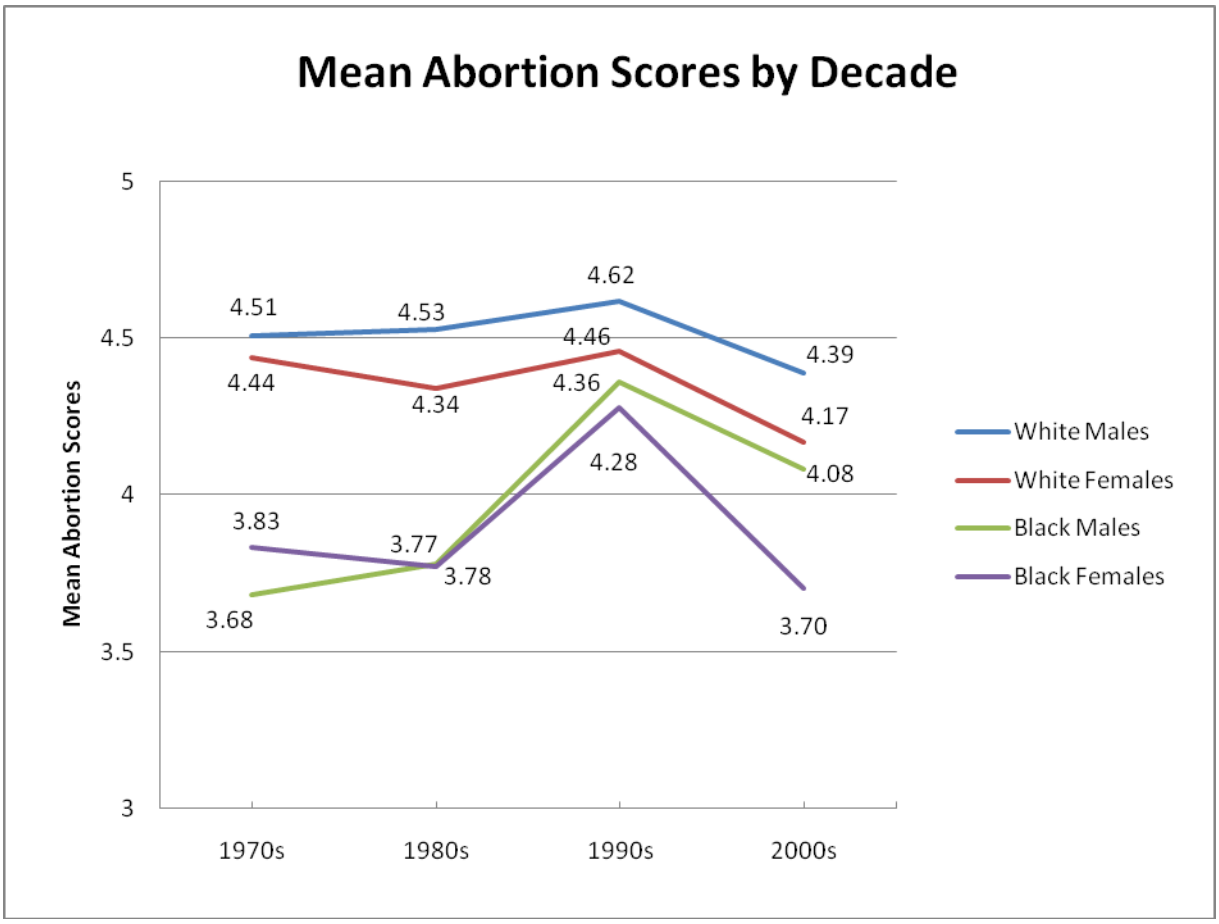

Figure 1: Mean Abortion Attitudes for White male, White female, Black male and Black females over a four Decade period.

Second, with the exception of Black males, mean scores for the groups are decreasing over the four-decade period. From the 1970s to the 2000s, White male, White female, and Black female mean scores decreased by .12, .27, and .13, respectively. Thus, the attitudes of White males, White females, and Black females appear to be becoming more conservative toward abortion over time. Black males, with a mean increase of .40, appear to be becoming more liberal across each passing decade. However, even for Black males, a closer look at the mean scores across each decade provides some interesting and quite similar trends. The mean scores from the 1970s to 1990s for White males, White females, Black males and Black females appear to be gradually increasing. After an apparent peak in the 1990s, that trend then quickly reverses in the 2000s as mean abortion attitude scores for all groups falls precipitously. The only difference for Black males is that the decrease in means from the 1990s to the 2000s does not eliminate the gains earned from the 1970s to the 1990s like it does for the other three social groups. Further trend analyses are needed to assess whether this conservative shift persists into the future.

5.2 Multivariate Analysis Results

Table 1 provides unstandardized parameter estimates and standard errors for five models. Model 1 assesses the impact of race and gender independently on abortion attitudes while controlling for the compositional variables mentioned above. Models 2 through 5 assess the

interactive impact of race and gender on abortion attitudes while controlling for the same compositional variables. More specifically, Models 2 through 5 make all possible comparisons for each of our four social groups (White males and females and Black males and females) while controlling for the same compositional variables as in model 1. Note that in model 2, Black females are the reference category whereas Black males, White females and White males are the reference category in models 3, 4, and 5, respectively.

Table 1. Unstandardized parameter estimates (standard errors in parentheses) assessing the effect of the social categories on the abortion attitudes index without control variables (models 1 and 2) and with control variables (models 3 and 4).

Independent Variables*	Model 1 Main Effect	Model 2 Main Effect	Model 3 Main Effects	Model 4 Main Effects	Model 5 Main Effects
White	-.008 (.074)	-	-	-	-
Male	-.174 (.049)***	-	-	-	-
White Males	-	-.249 (.097)**	.149 (.113)	-.144 (.051)**	-
White Females	-	-.106 (.092)	.292 (.112)**	-	.144 (.051)**
Black Males	-	-.398 (.132)**	-	-.292 (112)**	-.149 (.113)
Black Females	-	-	.398 (.132)**	.106 (.092)	.249 (.097)**
df	8006	7946	-	-	-
R^2	.278	.312	-	-	-

Note: Results in models include the control variables mention in the method section above but are not included to limit the size of the table. For a complete listing of these findings, please contact the primary author.

*** p < .001; ** p < .01; * p < .05

Model 1 in Table 1 reveals very little variation in abortion attitudes among White and Black respondents. That is, White and Black respondents tend to view abortion quite similarly. Female respondents, however, tend to hold more liberal abortion attitudes than their male counterparts. Models 2 through 5 in Table 1 provide interesting cross comparisons between our social groups as well. First, according to model 2, Black females tend to hold more liberal attitudes toward abortion than White males or Black males. Interestingly, Black females and White females tend to maintain similar attitudes toward abortion. Second, model 2 reveals that White and Black males tend to maintain quite similar attitudes toward abortion.

Moreover, Black males tend to be more conservative than both Black and White females. Third, model 3 shows that White females tend to be more liberal toward abortion than White males as well. Finally, model 4 reinforces the idea that White and Black males tend to hold similar attitudes toward abortion and that they continue to be more conservative than their White and Black female counterparts.

Of the compositional variables in models 1 through 5, several general observations are noteworthy. Respondents with higher education, who are older, live in urban areas, believe in premarital sex, and hold feminist beliefs and liberal political views tend to hold more positive views toward abortion. Conversely, respondents with more kids under the age of 18 in the home, republicans, fundamentalists and moderates and those that have a higher rate of church attendance tend to hold less positive views toward abortion.

Table 2: Unstandardized parameter estimates (standard errors in parentheses) of models assessing the effect of the social categories on the abortion attitudes index by each decade.

	1970s	1980s	1990s	2000s
White Male	0.087 (.274)	-0.067 (.277)	-0.541 (.158)***	-0.311 (.177)
White Female	0.534 (.266)*	0.147 (.220)	-0.483 (.149)***	-0.367 (.168)*
Black Male	-0.241 (.376)	-0.292 (.309)	-0.526 (.221)*	-0.328 (.232)
Black Female	-	-	-	-
df	.255	.289	.304	.325
R^2	1118	1792	2408	2185

Note: Models include all compositional variables as described in the methods section.

† For this analysis, all time periods (years) where data was collected are collapsed into a decade.

Politics index:

The 1970s decade includes the years 1974, 1975, 1977, and 1978.

The 1980s decade includes 1982, 1983, 1985, 1986, 1988, and 1989.

The 1990s decade includes 1990, 1991, 1993, 1994, 1996, and 1998.

The 2000s decade includes 2000, 2002, 2004, 2006, and 2008.

*** p < .001; ** p < .01; *p < .05

Table 2 presents unstandardized parameter estimates and standard errors for four models assessing the cumulative impact of race and gender over four decades (1970s, 1980s, 1990s and 2000s) while controlling for the same compositional variables as in Table 1. This analysis allows for a comparison of parameter estimates of the social groups (White males, White females, Black males and Black females) across the four decades, which will provide further information about patterns across time. More specifically, by assessing parameter estimates across time, we can assess whether abortion attitudes among White males, White females, and Black males are "converging" or "diverging" with those of Black females over four decades. In this light, the absolute values of the estimates allow us to see whether the magnitude of each effect size has increased, decreased or remained constant over time. Given the finding in Table 1 that Black females tend to hold more liberal abortion attitudes, we use Black females as the reference group in the regression models.

To assist in assessing whether the magnitude of abortion attitudes are converging, diverging or staying constant over time, we conducted t-tests to compare the change in parameter estimates across each decade.(Note 2) Particularly the t-test can assess each possible decade pairing (e.g., 1970s v. 1980s; 1970s v. 1990s; 1970s v. 2000s; 1980s v. 1990s; 1980s v. 2000s; 1990s v. 2000s) to see if any significant differences (or lack thereof) exist between Black women and the other three groups (Black males, White males and females) across the four decades.

Results of the models presented in Table 2 reveal several notable and interesting findings. First, results show relatively little difference in abortion attitudes between Black females and White and Black males in the 1970s and 1980s. Consistent with past research, White females reported greater liberal abortion attitudes than Black females in the 1970s and 1980s, although the 1980s estimate for White females does not reach statistical significance. Second, a cursory glance at the results for White males and females shows that the parameter estimates, with Black females as the reference group, appear to move from positive (liberal) to negative (conservative) over the four decade period. Put another way, there appears to be a shift where White males and females move from being more liberal toward abortion than Black females to more conservative. Three, Black males consistently appear to be more conservative toward abortion than Black females and that only appears to be growing (at least from the 1970s to the 1990s).

Finally, in the 2000s decade, the divergence in abortion attitudes note above (where Black females are becoming more liberal) appears to wane and an actual convergence is possibly occurring.

5.3 T-Test Results

The following analyses use t-tests to assess trends over time. The t-test is used to assess whether the parameter estimates are significantly changing (increasing or decreasing) or staying unchanged across each pair-wise decade comparison for the three social groups (White males, White females and Black males) in relation to Black females. For instance, this analysis initially compares change in parameter estimates for the 1970s to the 1980s, then from the 1970s to the 1990s, and then 1970s to the 2000s. We go on to also compare all other

possible decade comparisons, including 1980s to 1990s, 1980s to 2000s, and 1990s to 2000s. For clarity and conciseness, only significant results are included below.

The t-tests reveal some notable findings. First, for White males, in relation to Black females, an observable decrease in the parameter estimate is noted across each of the decades until the 1990s. This is evident when comparing the decrease from the 1970s to the 1990s, where the decrease reached statistical significance ($t=1.99$, $p < .05$, two-tailed test). That is, from the 1970s to the 1990s, the difference between White males and Black females decrease or converge substantially. In fact, the convergence was so large that where White males were somewhat more liberal in the 1970s they became significantly more conservative by the 1990s. The significant convergence thus led to a reversal in position for White males and Black females on the acceptability of abortion over time. However, it should be noted that although not significant, the parameter estimates actually increased although insignificantly using the t-test from the 1990s to the 2000s which reflects a new re-convergence trend.

Second, a similar pattern for White females is observed, although the change is a bit more extreme. T-tests reveal that significant shifts in parameter estimates are found when comparing the 1970s and 1990s ($t=3.34$, $p < .01$, two-tailed test); when comparing 1970s and 2000s ($t=2.86$, $p < .01$, two-tailed test); when comparing the 1980s and 1990s ($t=2.37$, $p < .01$, one-tailed test) and when comparing the 1980s and 2000s ($t=1.86$, $p < .05$, one-tailed test). This shift appears quite similar to that demonstrated above by White males. In the 1970s and 1980s, White females appear more liberal than Black females; however, results reveal a distinct convergence (diminishing parameter estimates) in the 1990s (note the statistical significant difference in Table 2) and 2000s. The shift is so dramatic that White females actually become more conservative than Black females in the later decades. Again, however, the trend appears to wane in the 2000s, although the difference in parameter estimate from the 1990s to the 2000s does not reach statistical significance.

Finally, Black males appear to be becoming more conservative from the 1970s to the 2000s. Indeed, in the 1990s, Black males show significantly more conservative attitudes than Black females. However, the trend appears to be a bit less apparent than the trends observed for White males and females in relation to Black females. Using t-tests to assess change by decade reveal no significant shift. Any change in the parameter estimates over the decades may be due to chance alone and not any real discernable or significant differences in parameter estimates. Although, a cursory glance notes a particular trend of divergence from the 1970s to the 1990s, where Black males are becoming more conservative toward abortion than Black females. However, similar to White males and females, the notable conservative shift in relation to Black females wanes in the 2000s decade.

6. Discussion and Conclusions

In general, there are several notable findings garnered from this research. First, to understand attitudes toward abortion, focusing on either race or gender alone tells only part of the story. When looking at the data as a whole, results seem to posit that gender is a stronger predictor of abortion attitudes. However, over the four-decade period, race and gender appear to interact to create unique categories or social groups that produce different attitudes toward

abortion. For instance, where similarities are observed in the 1980s, Black and White females appear statistically at odds over abortion in the later decades (1990s and 2000s).

Second, abortion attitudes are fluid and not static. That is, to understand viewpoints toward abortion one has to consider not only race and gender but also the social context in which the data are collected. Consistent with previous literature (Combs & Welch, 1982; Wilcox, 1990), a notable convergence between White respondents and Black females is observed from the 1970s to the 1980s, particularly between White and Black females. Where White females expressed the most liberal attitudes toward abortion of any group in the 1970s, and were significantly more liberal than Black females during this period, this difference disappeared statistically in the 1980s. That is, the attitudes of Whites and Black females appear to be becoming more and more similar.

From the 1980s to the 1990s, however, the abortion attitudes of White and Black females appeared to be actually diverging to the extent that Black females reported significantly more liberal attitudes than both White male and female respondents. This finding is consistent with previous research that reports a reversal in abortion attitudes between Blacks and Whites as a whole in the 1990s (Strickler & Danigelis, 2002) and a reversal in young White and Black male attitudes (Boggess & Bradner, 2000). Most interestingly, however, is that our data suggest that this divergence may be short-lived. From the 1990s to the 2000s, a small re-convergence is observed. Although an insignificant shift statistically, this re-convergence between the 1990s and 2000s could reflect a substantive broader societal shift that highlights the fluid nature of abortion attitudes across race and gender social categories. Further research is needed to track this broader change we observe in the data.

A similar trend except to a much lesser extent is noted for Black males in relation to Black females. After a notable shift through the 1990s that results in more conservative attitudes for White and Black females, the groups begin to re-converge into the 2000s. The trends for Black males in relation to Black females, on the other hand, appear a bit simpler. Although not always significant across the decades, Black males consistently report more conservative views toward abortion than Black females. However, again the 2000s also brings somewhat of a convergence for Black males and females similar to that observed for White females and White males.

With this said, we would like to emphasize that further research is needed to determine if this latter re-convergence for White females and to a lesser extent White and Black males noted in the 2000s, is substantial and persists into the future. With abortion being a central topic in the contemporary discussion over health care and health care reform, a more thorough understanding is needed of the fluid and ever-changing attitudes of White and Black males and females in U.S. society.

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Notes

1. We included only the decade means scores due to the lack of variation within each decade. Providing mean score per year did not add significantly to the findings and discussion. Thus, mean scores by year were omitted and replaced by mean scores per decade. Interested readers may the contact the primary author for complete listing of the scores for each year included in the analysis.

2. The formula for the t-test is: $\frac{(b1-b2)}{\sqrt{se1^2+se2^2}}$