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# The Political Determinants of Health: The Impact of Political Factors on Black-White Infant Mortality in the United States

Rongal D. Nikora

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Rongal D. Nikora

*Candidate*

---

Political Science

*Department*

---

This dissertation is approved, and it is acceptable in quality and form for publication:

*Approved by the Dissertation Committee:*

Deborah McFarlane, Chairperson

---

Christine Sierra

---

Gabriel Sanchez

---

Adelamar Alcantara

---

**THE POLITICAL DETERMINANTS OF HEALTH:  
THE IMPACT OF POLITICAL FACTORS ON BLACK AND  
WHITE INFANT MORTALITY RATES IN THE UNITED  
STATES**

by

**RONGAL D. NIKORA**

B.A., Religious Studies, College of William and Mary, 1995

M.A., Peace Studies, University of Norte Dame, 2001

M.A., Political Science, University of New Mexico, 2010

DISSERTATION

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## ACKNOWLEDGMENTS

When I decided to pursue a doctorate in political science at the University of New Mexico in 2005, the fields of race and ethnicity and health policy were the furthest things from my mind. Fresh from years spent in Japan, I was much more interested at the time in the study of international relations and security in East Asia, especially as it pertained to Japan and the Korean Peninsula. But as fate would have it, my early coursework in public opinion and the study of race and ethnicity in American politics rekindled my personal and academic interests in these issues. Before long, my experience of universal health care in Japan, coupled with my own ongoing health concerns shared by so many black Americans, drove me in the direction of U.S. health policy. As I researched the question of why the U.S. was alone among advanced industrial nations in having no national health insurance, I was shocked by what I perceived as a lack of appreciation of the role of race in the academic pursuit of this question. As my knowledge of the racial health disparities in the U.S. grew, so too did the desire to do my part to lay some of the groundwork for rectifying this grave injustice.

I would like to acknowledge all of those who have been instrumental in guiding me through this more than seven-year journey of discovery. The faculty and staff of the Political Science Department at the University of New Mexico has always indulged my academic curiosity, offered needed advice, and encouraged me to continue more times than I can recount. I would specifically like to thank Drs. Christine Sierra, Deborah McFarlane, Lonna Atkeson, Gabriel Sanchez, Wendy Hansen, William Stanley, Michael Rocca, Christopher Butler, Andrew Ross, Mark Peceny, Kathy Powers and Kathy Hochstetler for their assistance, guidance and encouragement during the years. I would also like to acknowledge the Robert Wood Johnson Foundation and the staff of the RWJF Center for Health Policy at the University of New Mexico for their financial and logistical support of my research into U.S. health policy. Finally, I would like to acknowledge the members of my cohort and several other graduate school colleagues who have been needed allies, critics and, most of all, friends during my time at UNM. What I have learned from each of them, and the ways in which they have inspired me to be a better researcher and citizen, will never be forgotten.

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RONGAL D. NIKORA

B.A., RELIGIOUS STUDIES, COLLEGE OF WILLIAM AND  
MARY, 1995

M.A., PEACE STUDIES, UNIVERSITY OF NORTE DAME, 2001

M.A., POLITICAL SCIENCE, UNIVERSITY OF NEW MEXICO,  
2010

DOCTOR OF PHILOSOPHY, POLITICAL SCIENCE

**ABSTRACT**

*Objective* This exploratory research project considers the role that the political culture of individual U.S. states may play in determining variation in the country's infant mortality rate. Specifically, do *conventional* and/or *racialized* measures of political culture help explain state-to-state variation, particularly in black infant mortality, as well as the longstanding mortality gap between infants born to black and white women? *Conventional* measures of political culture in this study include a state's past voting record in presidential elections, as well as how states are categorized under Elazar's (1966) typology of state civic culture (i.e., as moralistic,

individualistic or traditionalistic). *Racialized* measures include, among others, a state's past enactment of anti-miscegenation laws and a preclearance requirement for electoral changes under the Voting Rights Act of 1965 due to past racial discrimination at the ballot box.

*Data and Methods* Data on non-Hispanic black and white IMRs (the dependent variable) and the racial gap for the 59-year period of this study (1950 to 2008) were collected from the *Vital Statistics of the United States* and generated using CDC WONDER, an online database of the U.S. Centers for Disease Control and Prevention. The primary statistical methodology employed for this study was cross-sectional time-series regression. A total of four time-series models are developed. The first predicts infant mortality rates based on the independent variables introduced. The second predicts variation in two policies, payments to families under the now-defunct Aid to Families with Dependent Children (AFDC) program and Medicaid payments per enrollee, incorporating infant mortality rates as predictors. The third examines infant mortality rates using political culture factors as predictors. The last is a two-stage predictive model of the interaction between the first two models.

*Results* In Model 2, racialized measures of political culture and other political factors are associated with variation in the state, white and black IMRs and the racial gap. Contrary to expectations, both the state and black infant mortality rates and the racial gap are smaller in states that ranked highest on past racial hostility. Meanwhile, the black IMR and the racial gap are exacerbated when states are considered "tough on crime," as measured by incarceration rates, degree of felony disenfranchisement, and the black-white racial disparity in imprisonment. Following the two-stage regression model, the measure of past racial hostility is the only political culture variable that remains significant at the  $p > .05$  level, and is associated with a slightly lower black IMR when Medicaid payments are the instrumented variable used.

*Conclusion* Political factors, including measures of political culture, have a role to play in explaining variation in infant mortality rates across the U.S. states. The results of this research have important implications for health policy design and implementation. This research also furthers the growing body of literature on the continuing impact of political culture, race and ethnicity, and the social construction of target groups on health outcomes.

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# **The Political Determinants of Health: The Impact of Political Factors on Black-White Infant Mortality in the United States**

## **Introduction**

Throughout its nearly 300-year history, the United States has been a nation of contrasts. Its performance with regard to the health of its citizens is no exception. According to data published by the Organization for Economic Cooperation and Development (OECD) in 2009, the United States continues to spend far more on health care per capita than any other developed nation.<sup>1</sup> In 2009, per capita U.S. health care expenditures averaged \$7,960, or 17.4% of GDP, more than double the OECD average of \$3,361 for the 29 OECD countries reporting actual and estimated data for that year.<sup>2</sup> Yet despite this tremendous outlay, U.S. citizens experience health outcomes that are often below the OECD median on several key indicators (Anderson, Reinhardt, Hussey and Petrosyan, 2003). In 2007, the last year for which complete data were available, these included life expectancy at birth (77.9 years versus 78.9 years) and infant mortality (6.8 per 1,000 live births compared to 4.7).<sup>3</sup>

These aggregate figures, however, mask the stark disparities in health outcomes that frequently exist between white and nonwhite Americans. The purpose of this research is to examine infant mortality, where a persistent and substantial gap in outcomes exists between white and black Americans. Specifically, this research will assess whether largely unconsidered political factors may help to explain state-to-state variation in infant mortality rates and the racial gap in survivability in the first year of life for infants born to black and white mothers.

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<sup>1</sup> Organization for Economic Cooperation and Development, *OECD StatExtracts*, <http://stats.oecd.org> (October 3, 2011).

<sup>2</sup> Excluding the United States from calculation, the OECD average drops to \$3,197 per capita.

<sup>3</sup> Ibid



## *Background*

### *Race and Infant Mortality – the Black/White Gap*

The U.S. Centers for Disease Control and Prevention (CDC) define the infant mortality rate as the number of infant deaths per 1,000 live births occurring during the first 364 days of life.<sup>4</sup> Consistent with the use of this indicator by the OECD and the World Health Organization (WHO), the CDC states that the infant mortality rate “is related to the underlying health of the mother, public health practices, socioeconomic conditions, and availability and use of appropriate health care for infants and pregnant women” (Centers for Disease Control and Prevention, 2010:35).

U.S. performance on this vital population health indicator is alarmingly incongruent with both the country’s globe-leading health care expenditures and its status as the world’s most powerful economy. As of 2011, the United States, at 6.06 infant deaths per 1,000 live births, was behind Cuba in a ranking of estimated 2011 infant mortality rates among 222 countries, regions and territories, placing the U.S. at 46th in terms of infant mortality rates worldwide.<sup>5</sup> In contrast, the infant mortality rate in Japan, the world’s third largest economy, was 2.78 per 1,000 live births, or the fifth lowest in the world.

But perhaps more troubling than the high infant mortality rate in the United States relative to other rich nations is the reality that drives it—a large and enduring racial gap in the

---

<sup>4</sup> *Health, United States, 2010*

<sup>5</sup> U.S. Central Intelligence Agency, *The World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/fields/2091.html#102> (June 20, 2011)

survival of infants born to black and white mothers. The CDC reports that in 2009 (the latest year for which finalized CDC data were tabulated as of this writing) the infant mortality rate for infants delivered to black mothers was 12.64 per 1,000 live births, more than double the rate of 5.30 per 1,000 live births for infants born to white mothers.<sup>6</sup>

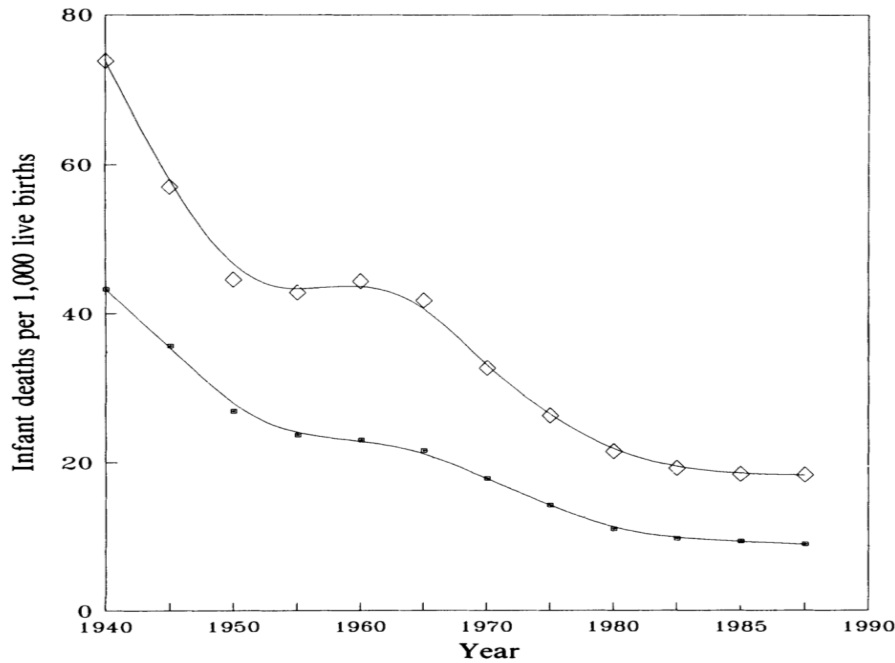
Over time, data on infant mortality dating back to the early 20<sup>th</sup> century [see Figure 1] show a dramatic improvement over subsequent decades in survival past the first year of life for both black and white infants. In 1940, infant mortality for black and white infants was around 75 and 42 per 1,000 live births, respectively. By 1990, those rates had each fallen to about 20 for black infants and 10 for white infants per 1,000 live births (LaViest, 1993).<sup>7</sup>

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<sup>6</sup> Sherry L. Murphy, B.S.; Jiaquan Xu, M.D.; and Kenneth D. Kochanek, M.A., Division of Vital Statistics, *National Vital Statistics Reports*, Vol. 60, No. 4 (January 11, 2012).

<sup>7</sup> Thomas LaVeist, "Segregation, Poverty, and Empowerment: Health Consequences for African Americans," *Milbank Quarterly*, 71(1): 41-64, 1993.

**Figure 1 Disparity in Black-White Infant Mortality in the United States (LaVeist, 1993)**



Diamonds: Black

Dots: White

But while tremendous strides have been made, the extent of improvement has clearly been greater for white infants.<sup>8</sup> The result is a wider differential in the infant mortality gap between these two racial groups today—with the rate for black infants roughly 2.5 times that of white infants—compared with 1.7 times in 1920.<sup>9</sup> In an earlier international comparison, LaVeist (1993) finds that U.S. performance on infant mortality is due largely to the extraordinarily high mortality rate among black infants. Citing data from 1986, LaVeist demonstrates that if black

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<sup>8</sup> See p. 566 of Satcher, David; Rubens J. Pamies. 2006. *Multicultural Medicine and Health Disparities*. New York: NY, McGraw-Hill.

<sup>9</sup> Hani K. Atrash and Melissa D. Hunter, 2006, “Health Disparities in the United States: A Continuing Challenge,” Chapter 1 of *Multicultural Medicine and Health Disparities*, edited by David Satcher and Rubens J. Pamies.

infant mortality were omitted, the U.S. world ranking in infant mortality would have improved five rankings to 12<sup>th</sup> lowest. While far from stellar given the country's economic resources, the black infant mortality rate alone would have ranked the U.S. 26<sup>th</sup> lowest in the world – just below Cuba in LaViest's analysis. If anything, the U.S. has lost ground since then, with more recent estimates ranking the country 50<sup>th</sup> lowest in the world, with infant mortality in Cuba now nine ranks better at 41.<sup>10</sup>

The direct causes of infant mortality vary, with the five most common (in 2010) from top to bottom being congenital anomalies, disorders relating to short gestation and low birthweight, sudden infant death syndrome (SIDS), newborns affected by maternal complications of pregnancy, and accidents.<sup>11</sup> In every case, black infants are at greater risk than white infants for all of these causes of mortality. Of these, black infant mortality from low birthweight (<2,500 grams at birth) was nearly 3.5 times that of white infants, up slightly from 3.4 times reported earlier in 1990 by Nakamura (1999).

This disparity in birthweight is the major factor in the numerical gap in black-white infant mortality, and is corroborated by David and Collins (1997). Analyzing data from 1980 through 1995 in Illinois, the researchers find that infants born to black American mothers have a 3.1 times greater risk of low birthweight, and 3.5 times greater risk of very low birthweight (<1,500 grams), than infants born to white mothers. More powerfully, they show that average birthweight for infants born to black mothers in their study who emigrated from West Africa is much closer to that of infants born to white American women than to their black American counterparts.

---

<sup>10</sup> According to 2012 estimates for infant mortality rates worldwide published in the online version of the CIA World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2091rank.html>, accessed on November 26, 2012.

<sup>11</sup> Sherry L. Murphy, B.S.; Jiaquan Xu, M.D.; and Kenneth D. Kochanek, M.A., Division of Vital Statistics, *National Vital Statistics Reports*, Vol. 60, No. 4 (January 11, 2012).

## *The Political Determinants of Infant Mortality*

These differences in birthweight and mortality have been attributed to a variety of sources over the years. While discussed in-depth in subsequent chapters, these include racial differences in genetics, behavioral factors such as maternal consumption of tobacco and alcohol, the negative impact of socioeconomic and residential effects, and the lingering effects of racism. Less attention has been given to the role that a host of political factors may play in perpetuating this racial differential in infant mortality in the United States. This absence is especially glaring given the historically recent dismantling of American apartheid, with the end in the mid 20<sup>th</sup> century of the last of the so-called “Jim Crow” laws—anti-miscegenation. At their most benign, such laws legally prohibited marriage between whites and nonwhites, most often blacks. But many went much further, labeling children produced from racially mixed unions as illegitimate and doling out jail time and other stiff penalties to those caught in violation.<sup>12</sup> The depth and strength of the racial animus required to enshrine racial separation as law suggest deep-seated, negative assumptions about black Americans among the white electorate, since the majority of states at some point enacted anti-miscegenation and other segregation laws. The severity of these individual laws when in effect may also have consequences for the political context left after such laws were declared unconstitutional.

In this research, I argue that blacks have been socially constructed as an undeserving and negative group by white political elites since the beginning of the U.S. federal system. I contend this construction led to the creation of racially targeted laws that reflect and sustain the

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<sup>12</sup> James R. Browning, “Anti-Miscegenation Laws in the United States,” *Duke Bar Journal*, Vol. 1, No. 1 (Mar. 1951), pp. 26-41.

underappreciated “racialized” aspects of political culture in the individual states. The measurable expression of this racialized political culture, and the degree to which blacks in particular have been negatively constructed, is found in the laws and ordinances that segregated blacks and whites in American society, and is reflected in the residential segregation, income and educational disparities, high levels of incarceration and police brutality that plague black Americans to this day. I suggest that these conditions collectively have important implications for the vast disparity that persists between black and white Americans in infant mortality, an important public health indicator. I argue that those states that have historically constructed their black citizens in the most negative light, as measured by past enactment of harsher and more numerous segregation laws, will today have worse outcomes in black infant mortality, and by extension infant mortality in general. I propose that these outcomes are the legacy of a political space in the states marked by a racially biased political culture. This context, in turn, constrains the behavior of political actors by curtailing their knowledge of black health issues and circumscribing their ability to address those issues through public policy.

In Chapters 1 through 3, I introduce the theoretical framework for the analysis – describing how race and the unique features of American federalism (including racialized state political cultures) combine with the social construction of target groups in policy design to set the stage for worse outcomes in infant mortality, notably in states with more extensive histories of racial discrimination. Chapter 4 outlines the hypotheses, data and methods that underpin the later analyses.

Chapter 5 offers a description of the dependent variables for analysis (state, white and black infant mortality rates, as well as the racial gap in rates) and the predictor variables, as well as rudimentary statistical tests (difference of means) of the relationships hypothesized in Chapter

4. Chapter 6 follows with a quantitative state-level analysis (time series) of political variables, both conventional and racialized, and their associated impact on state-to-state variation in infant mortality rates, as well as the gap in rates between blacks and whites.

In Chapter 7, I discuss the implications of the analysis for understanding other racial health disparities in the United States, as well as recommendations for the development of policies for helping to reduce or eliminate the gap in black-white infant mortality rates and areas for future research. I conclude with a summary of the research and a discussion of how the presence of longstanding disparities speaks to a broader need for corrective measures to address the racial injustice that weighs heavily on the lives of black citizens today.

Ultimately, this research project is designed to help shed light on the ramifications of politics and political factors for the disparate health outcomes that continue to afflict far too many black Americans. In so doing, my intent is to add both to the growing literature documenting the extent of these disparities in fundamental health indicators such as infant mortality, and to bring unique elements of the American political experience to the forefront of the health disparities debate.

## Chapter 1

### Backdrop to the Political Determinants of Health in the United States: Race

#### Introduction

Race (and racism) in the United States is a critical theoretical concept underlying the approaches to analyzing the differences in black and white infant mortality rates addressed in this research. This chapter opens with a brief discussion of racial disparities in health and other areas of life. This is followed by a look at the frequently cited reasons for the persistent black-white gap in infant mortality and an assertion of why the racial disparity in this public health measure is a problem. The chapter concludes with a review of the prominent theories of race in the United States, which together with theories offered in later chapters form the overarching theoretical framework used for this research.

#### *Disparities in Black and White*

The phrase “American exceptionalism” is frequently cited and analyzed in comparative efforts to explain why the United States stands apart from other nations along various social and political dimensions (Lipset, 1997; Lipset and Marks, 2001; Glickstein, 2002; Hodgson, 2009; many others). The same claim of exceptionalism holds with respect to population health, albeit largely along negative lines. Relative to the country’s health care-related expenditures, U.S. citizens experience lower life expectancy, as well as higher morbidity and mortality for a range of causes than many other advanced industrial nations (Satcher and Pamies, 2006; OECD, 2011).



This includes in areas ranging from transportation accidents to cardiovascular disease [see Table 1.1]. These grim outcomes stand in stark contrast to common assumptions of the salubrious effects of higher income and greater health care spending on health status (Marmot, 2002).

**Table 1.1 U.S. Ranking for Select Causes of Death Among OECD Countries in 2009**

Cause of Death	U.S. Ranking (Countries Reporting)
Ischemic heart disease	25 <sup>th</sup> (34)
Stroke	4 <sup>th</sup> (34)
Cancer	9 <sup>th</sup> (34)
Transport accidents	32 <sup>nd</sup> (34)
Suicide	16 <sup>th</sup> (35)

Note: Larger number equals worse outcome. Source: OECD (2011), *Health at a Glance 2011: OECD Indicators*, OECD Publishing. [http://dx.doi.org/10.1787/health\\_glance-2011-en](http://dx.doi.org/10.1787/health_glance-2011-en)

As O’Neil and O’Neil (2007) show in their comparison of health outcomes in the United States and Canada, the chief factor driving this seeming paradox is the exceptionally poor health of several nonwhite groups. This is especially the case for black Americans, the country’s third largest ethno-racial group. With the notable exception of suicide rates, black Americans fare worse than white Americans and other ethno-racial populations (i.e., Latinos, American Indians and Pacific Islanders, and Asians) across virtually the *entire* spectrum of health.<sup>13</sup> Compared to their white counterparts, black Americans are typically around 5 times more likely to be the victims of homicide, 1.5 times more likely to die from stroke, and twice as likely to suffer from hypertension.<sup>14</sup> Deaths from prostate cancer among black men are more common than among white men, while black women are more likely to die from breast cancer and roughly 3 times as

<sup>13</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, *Health, United States 2010*, <http://www.cdc.gov/nchs/data/hs/hs10.pdf> (August 2012).

<sup>14</sup> Ibid

likely to die from complications during childbirth as white women.<sup>15</sup> Most relevant for the present study, infants born to black mothers have for decades experienced more than double the chance of dying during their first year of life than infants born to white mothers, primarily as a consequence of complications and conditions associated with substantially lower birthweight.<sup>16</sup>

These disparities extend far beyond proximate health outcomes to encompass a host of social conditions now widely thought to factor heavily in determining individual and population health – the social or non-medical determinants of health.<sup>17</sup> Black Americans disproportionately live in underserved or dangerous neighborhoods, which has been correlated with higher blood pressure and morbidity.<sup>18</sup> Perhaps unsurprisingly, those same neighborhoods feature fewer supermarkets where healthier fare can be obtained and far more fast food establishments and liquor stores than the average white neighborhood (Laveist and Wallace Jr., 2000; Morland, Wing, Diez Roux and Poole, 2001; Grier and Kumanyika, 2008). They are also highly racially segregated, a factor that has been associated with a higher percentage of low-performing hospitals (Morales et al., 2005; JCPES, 2011), as well as a lack of availability of a variety of public services. Black Americans also live in closer proximity to incinerators and other negative environmental elements in certain cities such as Houston (Bullard, 1983). Given that other research has shown a strong relationship between air quality and infant mortality (Chay and Greenstone, 1999), as well as neighborhood-induced stress and very low birthweight and other infant health outcomes (Collins Jr. et al., 1998; Pearl, Braveman, and Abrams, 2001), these adverse conditions may play a key role in the persistent racial disparity in U.S. infant mortality rates.

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<sup>15</sup> Ibid

<sup>16</sup> See *Vital Statistics of the United States*, 1950 to present

<sup>17</sup> WHO Commission on the Social Determinants of Health; final report available at [http://www.who.int/social\\_determinants/thecommission/finalreport/en/index.html](http://www.who.int/social_determinants/thecommission/finalreport/en/index.html)

<sup>18</sup> Joint Center for Political and Economic Studies (JCPES), 2011

In terms of income and assets, in 2009, black Americans had a median household net worth of \$5,677, compared to \$113,149 for their white counterparts,<sup>19</sup> and a median family income of \$38,409, versus \$62,545 for white families.<sup>20</sup> In 2009-2010, 36% of black Americans lived in poverty nationwide (for whites, the figure was 14%),<sup>21</sup> and in 2004 black mothers were more than twice as likely as white mothers to receive public assistance such as food stamps.<sup>22</sup> These statistics occur within a demographic context in which the black American population is roughly 37 million individuals, or 12% of the U.S. population. As discussed elsewhere in this research, the stress of living in impoverished neighborhoods, a situation that by definition disproportionately affects black Americans, could be another contributor to high black infant mortality.

Education, another key socioeconomic metric, has been found to be an important factor associated with improved health across the board for white Americans, including cancer survivability (Glied and Lleras-Muney, 2008). But here again, black Americans face challenges, with the New York Times reporting high-school graduation rates for black American children of 61% nationally for 2007-2008. This compared to 81% for their white peers.<sup>23</sup> The level of disrepair of facilities, inadequate funding, and violence of predominantly black and nonwhite schools is also well documented (OECD, others). Given these challenging life circumstances, it is perhaps unsurprising that black males experience incarceration at some point in their lives at a rate of 8-to-1 compared to white males (Pettit and Western, 2004). Since most of these young men are from poor and underserved communities, the burden that a record of imprisonment and

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<sup>19</sup> Pew Research Center, <http://pewresearch.org/>

<sup>20</sup> U.S. Census Bureau, 2012, Statistical Abstract of the United States <http://www.census.gov/compendia/statab/>

<sup>21</sup> Kaiser Family Foundation website, <http://www.kff.org/>

<sup>22</sup> (U.S. Census Bureau, 2008 Participation of Mothers in Assistance Programs 2004

<sup>23</sup> See interactive map of graduation rates at <http://economix.blogs.nytimes.com/2010/06/02/graduation-rates-by-state-and-race/> (accessed January 21, 2012).

felony conviction carries has a continuing negative impact. This adverse effect is felt not only in the employment prospects of the individual, but on the socioeconomic and political potential of the communities that many inevitably return to upon release (Mauer, 1997; Mauer and King, 2007). As these grim figures indicate, in a holistic concept of health, black Americans are at a clear disadvantage for achieving the social, physical and psychological wellbeing vital to good health relative to their white counterparts.

Mirroring these disparities, the infant mortality rate across the states is significantly higher for infants born to black mothers. Infant mortality is considered by the World Health Organization (WHO), Organization for Economic Cooperation and Development (OECD), and the U.S. Centers for Disease Control and Prevention (CDC) to be a key measure “related to the underlying health of the mother, public health practices, socioeconomic conditions, and availability and use of appropriate health care for infants and pregnant women” (Centers for Disease Control and Prevention, 2009:48). A comparison of black and white infant mortality rates based on aggregate state-level data starkly show that the black infant mortality rate on average is not lower in *any* state than the rate for whites, and is frequently more than twice as large (see Table 1.2). In a nationwide comparison of states in 2007, the black infant mortality rate for the state of Washington (at 7.80 per 1,000 live births) is the *best* in the nation but stands as a virtual outlier (the next lowest rate is 8.85 in Oregon). The vast majority of states report rates of higher than 12. Incredibly, the best rate for black infant mortality across the states is only marginally lower than the nation’s *worst* white infant mortality rate for the period 2005-2007 (7.85), found in the state of Oklahoma.

**Table 1.2 Average Infant Mortality Rates (IMRs) by State – 2005 to 2007**

State	Total (all races)	White IMR	Black IMR
<b>Alabama</b>	9.49	7.6	14.09
<b>Alaska</b>	6.52	4.68	*
<b>Arizona</b>	6.69	6.21	13.12
<b>Arkansas</b>	8.04	6.78	14.0
<b>California</b>	5.19	4.73	11.19
<b>Colorado</b>	6.11	5.20	13.53
<b>Connecticut</b>	6.24	4.59	13.87
<b>Delaware</b>	8.24	5.78	13.87
<b>Florida</b>	7.20	5.73	12.90
<b>Georgia</b>	8.05	5.92	12.74
<b>Hawaii</b>	6.35	4.21	21.08
<b>Idaho</b>	6.56	6.13	*
<b>Illinois</b>	7.16	5.66	13.81
<b>Indiana</b>	7.84	6.91	15.96
<b>Iowa</b>	5.35	5.0	10.36
<b>Kansas</b>	7.51	6.87	15.73
<b>Kentucky</b>	6.98	6.45	12.45
<b>Louisiana</b>	9.65	6.56	14.53
<b>Maine</b>	6.51	6.36	*
<b>Maryland</b>	7.76	5.23	12.77
<b>Massachusetts</b>	4.97	4.19	9.95
<b>Michigan</b>	7.72	5.91	15.42
<b>Minnesota</b>	5.28	4.59	10.46
<b>Mississippi</b>	10.64	6.88	15.13
<b>Missouri</b>	7.46	6.35	14.44

**Table 1.2 Average Infant Mortality Rates (IMRs) by State – 2005 to 2007 (cont'd)**

State	Total (all races)	White IMR	Black IMR
<b>Montana</b>	6.49	5.77	*
<b>Nebraska</b>	5.99	5.41	12.32
<b>Nevada</b>	6.20	5.47	13.04
<b>New Hampshire</b>	5.54	5.35	*
<b>New Jersey</b>	5.24	3.49	11.74
<b>New Mexico</b>	6.01	6.24	*
<b>New York</b>	5.67	4.47	11.22
<b>North Carolina</b>	8.47	6.36	15.16
<b>North Dakota</b>	6.50	5.98	*
<b>Ohio</b>	7.90	6.43	15.32
<b>Oklahoma</b>	8.11	7.85	13.94
<b>Oregon</b>	5.69	5.59	8.85
<b>Pennsylvania</b>	7.49	5.74	14.52
<b>Rhode Island</b>	6.65	3.98	11.66
<b>South Carolina</b>	8.75	6.15	14.01
<b>South Dakota</b>	6.70	5.70	*
<b>Tennessee</b>	8.57	6.85	15.33
<b>Texas</b>	6.34	5.67	12.32
<b>Utah</b>	4.89	4.73	*
<b>Vermont</b>	5.75	5.62	*
<b>Virginia</b>	7.43	5.65	14.17
<b>Washington</b>	4.88	4.27	7.80
<b>West Virginia</b>	7.50	7.25	15.29
<b>Wisconsin</b>	6.44	5.28	15.46
<b>Wyoming</b>	6.95	6.53	*

Source: National Vital Statistics Reports, Vol. 59, No. 6, June 29, 2011. According to the source, an asterisk (\*) denotes figures that do not “meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.”

### Reasons for the Gap

The following are four of the most frequently cited reasons in past and present literature for the sizeable and longstanding racial gap between black and white infant mortality rates.

## *Genetics*

In 1967, the Collaborative Perinatal Project, a long-running maternal and infant health project by the National Institutes of Health, offered its view on why such stark differences persist in black and white infant mortality rates. The project concluded that, “only 1 percent of the total variance in birthweight [between black and white infants] was accounted for by socioeconomic variables...[the] effect of race [is] presumably genetic” (David and Collins, 1997: 1209). In their article aimed partially at debunking this widely assumed genetic causation claim, David and Collins (1997), analyzing data from 1980 through 1995 in Illinois, show that infants born to black mothers who emigrated from West Africa have birthweights much closer to those of infants born to white American women than to their black American counterparts. As stated earlier, low and very low birthweight among infants born to black American mothers is the most significant factor driving the racial gap in infant mortality.

David and Collins’ finding is important in that it substantially undermines a long presumed cause of the racial disparity in infant mortality – an assumption of inherent genetic differences between blacks and whites. As in many areas where glaring racial health inequalities exist between black and white Americans, the persistence of the gap in infant and maternal mortality (the latter typically more than double for black women versus their white counterparts) has frequently been attributed to *racial* genetic factors. The problem, in other words, is attributed to Black African ancestry, rather than to the stark and enduring gaps in income, education and other socioeconomic factors. In the United States, these socioeconomic differences are largely determined by the social meanings of race (see David and Collins, 2007; Hummer, 1996; Hogue

and Hargraves, 1993), as well as the intersection of race and class over time (Kawachi, Daniels and Robinson, 2005). Interestingly, Kawachi et al. find that assumptions of racial genetic factors as the culprit in black-white health disparities still continue to permeate the modern academic literature on the subject (see also Sankar, Cho, Condit, et al., 2004).

### *Behavioral Factors*

Behavioral factors have also long been cited as playing a role in the racial disparity in infant mortality. Specific examples include the presumed failure of black women to seek early prenatal care, as well as high teen pregnancy rates among black mothers, an increased incidence of unhealthy behaviors during pregnancy such as smoking and alcohol consumption (Case and Paxson, 2002; Meara, 2001), and unmarried status when giving birth, all of which are generally associated with more negative birth outcomes. The available data, however, suggest that with the notable exception of single parenthood, black mothers engage less frequently in risky behaviors that could impact birthweight than their white counterparts. Black mothers smoke and consume alcohol *less* frequently during pregnancy than their white peers (Colen, Geronimus, Bound and James, 2006; Cohall and Bannister, 2001; Geronimus, 1996). Chronically poor black mothers, meanwhile, initiate prenatal care in the first trimester of pregnancy at a slightly higher rate than poor white mothers (Colen et al., 2006). But perhaps most surprisingly, black mothers often experience *better* birth outcomes at younger ages and with unmarried status than either white women or their older black counterparts (Geronimus, 1996; Hellerstedt, Pirie and Alexander, 1995). Indeed, Colen et al. assert that this gap in infant mortality cannot be accounted for by



what they call “proximate determinants,” such as smoking, maternal age or inadequate prenatal care.

### *Socioeconomic and Residential Effects*

More recently, socioeconomic factors have been highlighted in explaining the infant mortality gap and other racial health disparities. Education has generally been found to be an important determinant of health for whites, apparently due to better knowledge of medical treatments and options (Glied and Lleras-Muney, 2008). CDC data for 2005 show a negative correlation between education and race-specific infant mortality for both whites and blacks, with more years of maternal education associated with lower infant mortality. These same data, however, show that the probability of death before age one for infants born to black women at *every* level of educational attainment is consistently higher than for white infants. Interestingly, the infant mortality rate for infants born to black mothers with more than 13 years of education is significantly higher than that of white mothers with *fewer* than 12 years of education (12.6 versus 9.7 in 2005). Furthermore, the infant mortality gap actually *grows* as educational attainment for cohorts of black and white mothers increases (CDC, 2009; David and Collins, 1997).

A similar picture emerges for another indicator of socioeconomic status – income. Grossman and Jacobowitz (1981) note a positive relationship between black poverty and infant mortality, with poorer, less educated black women experiencing better outcomes relative to their white peers than their higher SES black counterparts. In slight contrast, Colen et al. (2006) find that upward socioeconomic mobility relative to childhood SES is associated with better infant birthweight, and thus lower infant mortality, among black and white women. The extent of this

effect, however, fails to reach statistical significance for black women, suggesting that the improvement in infant birthweight accompanying greater wealth is not as substantial when compared to gains for white mothers and their infants.

There is also growing evidence that socioeconomic status, and its presumed role in health disparities, is most keenly felt in terms of the vast economic and residential inequality that exists in the United States. Kawachi (2005) asserts that health disparities in the U.S. are not largely the result of genes, smoking and other unhealthful behaviors, or even access to health care. Rather, disparities emerge as a result of *relative inequality*, particularly in household incomes, which is associated with higher levels of death and adverse health behaviors across the board.

Nowhere is this relative inequality more evident than in the residential segregation and isolation experienced by ethno-racial minorities versus their white peers. Polednak's 1991 analysis of infant mortality in 38 select U.S. cities finds a positive correlation between residential segregation and black, but not white, infant mortality. This outcome may stem from what such segregation likely means in terms of service availability and the neighborhood environment. For example, Morland, Wing, Diez Roux and Poole (2001) find that the availability of supermarkets and other sources of healthy foods are severely limited in predominantly black communities compared to both mixed and predominantly white communities. Similarly, research by LaVeist and Wallace Jr. (2000) shows that liquor stores, rather than more reputable establishments such as restaurants that sell alcohol, are disproportionately found in black communities. Grier and Kumanyika (2008), meanwhile, report that the differential targeting of black and other ethnic minority communities for marketing of high-fat, high-calorie foods may contribute to obesity disparities between blacks and whites, and thus the later onset of diabetes, heart disease and other obesity-related health problems.

Impoverished neighborhoods also experience higher levels of violence and have fewer services available. Augustin, Glass, James and Schwartz (2008) suggest that the stress caused by such living conditions may be why people from neighborhoods that score high on measures of psychological hazards (danger, decay, etc.) had higher levels of cardiovascular disease. The fact that many black Americans live or grow up near landfills, incinerators and other solid-waste disposal sites compared to whites is another possible socioeconomically based source of health disparities (Bullard, 1983). In corroborating this socioeconomic argument, LaVeist et al. (2011) find that much, if not all, of the disparity between blacks and whites in terms of hypertension, diabetes, smoking, health care access, and obesity can be explained by community-level factors when blacks and whites live in the same neighborhood.

Given the importance ascribed to good nutrition, healthful behaviors, clean environments, and access to health services in improving maternal outcomes (Pearl, Braveman, and Abrams, 2001; Nakamura, 1999) and women's health more generally (Taylor, 2001), black women with long-term exposure to such conditions may be at greater risk vis-à-vis white women with respect to later reproductive health problems, including infant mortality, due to the cumulative impact of protracted disadvantage. Along similar lines, Robert Hummer (1993) suggests that "sociodemographic" factors, such as low education and income, actually account for much of the racial disparity in infant mortality, rather than biological conceptions of race.

### *Legacy of Racism*

Hummer is also among the growing list of scholars who think that racism has played an overarching role in structuring socioeconomic status, and thus health outcomes of all types, in

the United States, most notably for black Americans. Williams, Lavizzo-Mourey and Warren (1994) have developed a model of health status that explicitly includes racism as a key determinant of health in the United States (see Figure 1.1). Specifically, racism, macrosocial factors (e.g., historical conditions, economic structures), geographic origins and biological factors, all interact to influence one's social status (race, etc.) and the surrounding risk factors and resources available, which also interact. These factors result in the complex set of biological and psychological mechanisms that, in turn, largely determine an individual's health status (see diagram). In the context of infant mortality, Hogue and Hargraves (1993), David and Collins (1997) and Geronimus (1996) see racism, and the health impact of coping with its effects long term (or "weathering" to use Geronimus' term), as important determinants in unraveling the black-white gap in low birthweight and infant deaths.

**Figure 1.1. Framework for Understanding Relationship between Race and Health (Williams, Lavizzo-Mourey, and Warren, 1994)**

**social consequences (19, 20).**

**The figure is a model of the complex relationships between race and health, providing a model for understanding and studying the role of race in health. The figure indicates that race is a societally constructed taxonomy that reflects the intersection of particular historical conditions with economic, political, legal, social, and cultural factors, as well as racism (21). The components of race are interrelated and can combine to affect each other and other societal outcomes in additive and interactive ways.**

**Historically, macrosocial factors created racism, giving special salience to selected physical characteristics or the geographic origin of particular**

## Why the Gap is a Problem

Nakamura (1999) suggests that infant mortality, as a key health index, “provides clues about the health care situation, the income level, living conditions, as well as the nutritional status of the mothers in this group” (10). The WHO et al., meanwhile, states that “country estimates of maternal mortality over time are crucial to inform planning of sexual and reproductive health programs and to guide advocacy efforts and research at the national level” (2007:1). Minimally then, one could say that addressing the inequality in black-white infant and maternal mortality (where a similar gap exists) is an important task for what could be termed *programmatic, economic, and normative* reasons.

“Programmatic” here refers to the development and implementation of public health and other policies, interventions, campaigns, and activities designed to address a specific health issue. In the case of infant mortality, the persistent and substantial racial gap in these outcomes over time strongly suggests that policymakers must consider more carefully historical, macroeconomic and other overarching (or “meta”) factors (i.e., racism and socioeconomic conditions) in creating effective policies to eliminate inequalities in this area. The magnitude and consistency over time of the disparities also suggest that government policies such as *Healthy People 2010*, which sought to close this gap within a decade, may lack the goal clarity, time horizons, and understanding of the fundamental causes of such disparities to be successful without significant overhaul and reassessment. As mentioned earlier, data cited by Geronimus (1996; see also Taylor, 2001), Nakamura (1999), David and Collins (1997) and others, suggest

that in some comparison years, black women actually experience a *larger* gap in infant and maternal mortality versus their white peers at older ages, higher incomes, and higher education levels than as unmarried teens and young adults. This bizarre phenomenon may owe to premature physical aging, or “weathering,” brought on by differential exposure to environmental and psychological stressors (Geronimus, 1996) stemming from social inequality rooted in past and present racism in the United States. This could have important and controversial implications for abstinence-only education and other public health interventions and programs aimed at discouraging teen pregnancy.

The economic costs of the differential in black-white infant mortality are not explicitly stated in the literature, though such costs are several and significant. One of the most obvious is related to the higher rates of pre-term, low birthweight, and very low birthweight infants born to black women, who in the U.S. are disproportionately among those living in poverty. In simple economic terms, the higher black infant mortality rate translates into increased costs for the pre- and postnatal care of these low birthweight infants, many of whom are likely to die within the first year of life, relative to those born to white mothers. When these infants die, the bills for their expensive hospital care must nonetheless be paid either by their parents, insurance companies, or for the indigent, with public funds via programs such as a Medicaid.

Finally, there is the normative problem of this mortality disparity. Assuming as valid Nakamura’s earlier statement on the meaning of infant mortality as an important health indicator, the black-white gap clearly indicates a historically sustained, intensive and worsening socioeconomic inequality between black and white American women in basic areas such as health care access, nutrition, and living environments. David and Collins’ work, meanwhile, hints strongly that there is something about the American experience that has had a devastating

effect on the health of the native-born black population. If egalitarianism and individualism are indeed important values in U.S. society (Valentino, Hutchings and White, 2002), the continued presence of these blatant and racially determined disparities (in a social, rather than any biological or genetic sense) should be troubling for American policymakers and the general public alike. Moreover, the normative push to eliminate such inequalities should be strongest among those in the political sphere who advocate “colorblind” social policy, since it is clear that a distinct color line is drawn even today between which infants are most likely to survive one of the most fundamental life experiences for many women: childbirth.

### *The Political Vacuum Around Black Infant Mortality*

The persistence and sheer size of the gap between black and white Americans on what the CDC, OECD and WHO all acknowledge is a vital measure of population and societal health sparks many questions appropriate to political science. One of them is why this longstanding public health problem has long failed to capture public attention, or elicit advocacy by policymakers and other political actors. John Kingdon, in his 1984 book (republished in 2002), offered an exposition of how issues emerge as problems to be addressed as part of policy agendas. Specifically, Kingdon suggests two points relevant to the current discussion of the clear racial disparity in infant mortality rates.

1. Government officials frequently become aware of problems because of performance in a particular indicator.
2. Focusing events, such as a crisis or disaster, are often needed to underscore that the

indicator represents a real problem.

To take Kingdon's first point, a black-white disparity in infant mortality has been visible in publicly available U.S. vital statistics data since the early 20<sup>th</sup> century.<sup>24</sup> Yet the presence of this gap has not been sufficient to garner the attention of government officials and galvanize intensive action to address the disparity. One argument for this inaction despite ample evidence could be the second point, the need for a high-profile focusing event to capture policymaker attention. In a study in 1999, and again a decade later in 2010, by Benz et al. (2011), only 43 percent of those of all racial and ethnic backgrounds interviewed were aware of a substantial racial gap in infant mortality. The lack of a focusing event may help explain why knowledge and awareness of black-white infant mortality rates and other racial health disparities remain low and virtually unchanged over a decade, despite a host of high-profile attempts to increase knowledge of racial disparities in health. Efforts have included the publication of *Healthy People 2010*, a plan by the U.S. Department of Health and Human Services to eliminate health disparities; a report published by the Institutes of Medicine detailing differential treatment of racial and ethnic minorities in health care settings; and the public television documentary series *Unnatural Causes*, which also highlighted racial disparities.

The widespread lack of knowledge of the extent of the racial gap and variation in infant mortality suggests that the issue has failed to capture the attention of either politicians or the general public. This shortcoming is noteworthy given the prescriptive and rhetorical attention given to other reproduction-related concerns, such as teen pregnancy, abstinence education and abortion. On the other hand, inaction on infant mortality may stem from a lingering belief that

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<sup>24</sup> See *The Vital Statistics of the United States* (years from 1950 viewed for this research).



the disparity is due largely to genetic differences in the two racial groups (David and Collins, 2007; Kawachi, Daniels and Robinson, 2005). This would make infant mortality a problem of the type described by Anderson (2003), i.e., one that is not amenable to governmental solutions or remedies.

Nevertheless, in a world where politicians actively search for opportunities to advertise, claim credit for, and take positions on actionable policies in order to secure their prospects for reelection (Mayhew 1974), the absence of political actors eager to leave their mark on a well-documented public health problem affecting the most innocent of persons, infants, is curious. Can this inaction be attributed solely to a lack of knowledge, or to a belief that the problem is one that policy is not able to address?

One of the core assumptions of this research project is that racism is a fundamental element in the creation and consolidation of the American state. It is a key component of the “American exceptionalism” that continues to set the United States apart from every other federal system and all other advanced industrialized nations in its reticence to enact progressive policies across a range of policy spheres, including health care. I argue that political neglect of the massive disparities in socioeconomic conditions and health particularly as experienced by black Americans can only be understood in the context of the legacy effects of American racism. This racism, prefaced on an unquestioned belief in white (male) supremacy, was embedded deeply in the rationales and psyches of the original drafters of the U.S. Constitution and subsequent framers of the American federal state. For centuries, this belief has resulted in the social

construction of black people as an undeserving population, both in popular discourse and for the purposes of policy.

One of the practical outcomes of this society-wide “racial project” (to use the term offered by Omi and Winant (1994)) has been to transform attempts to address problems and concerns construed as largely beneficial to blacks into political liabilities. In tandem, white politicians and citizen groups in the majority of states in the recent past have taken advantage of this negative construction of black men and women to legislate policies that have actively restricted the constitutional and human rights and privileges of black citizens. These restrictions at times have encompassed everything from the right of black people to marry partners and live in neighborhoods of their choosing, to the right to vote (see Konvitz, 1951; Browning, 1951; Jones-Correa, 2000-2001).

Beyond the establishment of legal segregation as the law of the land through these and other so-called “Jim Crow” laws, the pervasiveness of this overtly racist social and political heritage may help explain, for example, why the U.S. Senate failed for decades to establish and enforce tougher laws to combat the lynching of black citizens by white mobs despite legislative efforts by the House of Representatives and seven Presidents (Stolberg, 2005).

The following is a more detailed examination of the literature on American racism. Subsequent chapters will examine American federalism and the social construction of target groups, and how these three concepts converge and interact to form an important theoretical lens for analyzing the variation and gap in white and black infant mortality rates that remains across the American states.

## *Racism*

The U.S. was founded on the principles of personal liberty, inalienable social and political rights, individualism and economic egalitarianism – concepts that remain core values among the nation’s citizens over two centuries later (Blank and Burau, 2004; Williams, 2003; de la Garza, Falcon and Garcia, 1996; Skocpol, 1995). Yet it was this same country where the polar opposite of these values, the unprecedented importation and chattel enslavement of West African peoples, remained a legal institution for over 250 years. It would be another century before *de jure* barriers to the political and social participation and incorporation of the descendants of enslaved Africans were substantially dismantled. The 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> Amendments to the U.S. Constitution, as well as the Voting Rights Act (introduced initially in 1965) remain stark reminders that dramatic legislation has been needed to safeguard the “unalienable” political rights of blacks and other nonwhite U.S. citizens.

Despite these legal steps forward, vast and well-documented political, economic (Garcia and Sanchez, 2008; Wilkins, 2007; Wolbrecht and Hero, 2005; Lien, Conway and Wong, 2004, Tate, 2003; Dawson, 1994) and social disparities remain between America’s white and most of its nonwhite citizen subgroups, particularly in health outcomes (Morone and Jacobs, 2005; Williams and Collins, 1995; Williams, Lavizzo-Mourey and Warren, 1994). The presumed culprit behind these differential outcomes is the continuing impact of past and present racism, especially where the intense health disparities experienced by black Americans are concerned (Hummer, 1996).

## Prominent Theories on Race and Broader Applicability

Of the various theories that attempt to explain white racism and attitudes towards blacks in American society, four have assumed prominence. The first, biological racism, also known as “traditional” or “old fashioned” racism, posits that blacks are inherently inferior and/or corrupted beings in comparison to whites (Hutchings and Valentino, 2004; Virtanen and Huddy, 1998; Kinder and Sears, 1981; many others). Closely related to the more archaic ideologies of ethnocentrism and nationalism, this concept, as it pertains to how whites view blacks, was first formally articulated in the 19<sup>th</sup> century (Davies, 1980). This period coincides with the African slave trade, although Davies suggests that the inchoate roots of racism itself have been traced much farther into antiquity. Since its inception, biological racism has been marked by feelings of disgust or revulsion with respect to black Africans and their descendants; sentiments readily expressed in the past by a wide range of white European and American commentators, including philosophers, presidents and scientists<sup>25</sup>. The resulting obsession in American society with the

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<sup>25</sup> For example, a 1995 article from *The Journal of Blacks in Higher Education* reprints comments by Jean Louis Agassiz, a scientist best known for his groundbreaking work on glacial movements, in which he describes in lurid detail his revulsion with black physical features upon seeing black servants for the first time in 1846. The same article quotes President Theodore Roosevelt as saying that, “A perfectly stupid race can never rise to a very high plane; the Negro, for instance, has been kept down as much by lack of intellectual development as by anything else.” In his book on health care in the United States, Colin Gordon (2004) includes a quote by Florence Kelley, head of the National Consumers’ League and a prominent voice in America’s health care debates of the 1920s, who lists “Negroes” among “alcoholics,” “the mentally defective,” and other undesirables who might be encouraged to reproduce by more inclusive maternal health care legislation.

apparent taint of black blood can be seen in the preponderance of so-called “anti-miscegenation” laws across the country (Konvitz, 1951) through the latter half of the 20<sup>th</sup> century. These segregation laws prevented interracial marriage between whites and most nonwhites, but most often with blacks, and persisted legally until overturned by the U.S. Supreme Court in *Loving v. Virginia* in 1967.

The so-called “one-drop rule” and other informal and legal means of determining blackness (but tellingly, not whiteness) in the United States are another example of the biological preoccupation that underpins biological racism. Omi and Winant (1989) recount the story of Susie Phipps, a blonde “white” woman in Louisiana who, in 1982, challenged that state’s right to define “blackness” (1/32 blood quantum at the time) and categorize its citizens by race upon discovering that she was listed as “black” on her birth certificate. Phipps, a descendent of a white slave owner and his black slave, did not win her case.

Recent research on racism in the U.S. suggests that crude notions of biological racism are no longer articulated by the majority of white Americans (Bonilla-Silva, 2006; Sears, Sidanius and Bobo, 2000; Kinder and Mendelberg, 2000). These findings notwithstanding, the concept nevertheless persists, as witnessed in the debate surrounding the biological dimensions of intelligence articulated in *The Bell Curve* in the late 1990s, and pessimistic assessments of intelligence and race by renowned biologist James Watson.

A second and somewhat related theory, developed by scholars like Williams (2003) and Hunter (2002), is that the historical subjugation of nonwhite peoples by whites in U.S. society has resulted in a hierarchy of power and privilege based almost exclusively on skin color. At the top of this hierarchy are whites, seen by birth as embodying moral values, deserving of

opportunity, the ideal of beauty, and possessing high intelligence. Blacks, to whom negative values and qualities in virtually direct contrast to whites are ascribed, inhabit the bottom-most rung of this structure. For Hunter, internalization of this hierarchy of skin color is seen as damaging to the prospects for higher status marriage and social mobility for darker-skinned black women. Williams, meanwhile, in examining the history of social welfare in the United States, sees skin color as critical to understanding the country's lagging efforts in this area. For Williams, the reason that the well-funded Civil War pension system was long-lasting (several decades), generous and open to many who never fought (including wives and children of veterans), as opposed to the Freedman's Bureau, which was short-lived (ultimately about ten years), cash-strapped, and under constant political attack, comes down to a single point: the skin color of most recipients. The pension system, while ostensibly universal, primarily benefited whites, with most eligible blacks unable to apply for benefits due to educational barriers, documentation, or other insurmountable requirements due to their prior enslavement. The bureau, meanwhile, mainly serviced former black slaves and white refugees from the South. In this racial hierarchy, whites were deemed as deserving of benefits to keep them from poverty; blacks as undeserving since hard work alone was deemed sufficient to keep them from the poorhouse and benefits would breed dependency. In short, an enduring anti-black affect has been attached to skin color. Latinos and Asians, too, fall into this hierarchy under whites, albeit with a status higher than blacks (Hero, 1992; Kim, 1999).

Third is Omi and Winant's (1989) theory of racial formation. As hinted by the case of Susie Phipps, racial formation posits that the largely social concept of race changes over time. Relevant meanings regarding the racial order, power, stereotypes, and interactions between and among members of these groups are dictated by ongoing "racial projects" that create society's

“common sense” regarding race. Viewed through this lens, all dimensions of race, including its physical parameters, can and will change over time. How this change happens, however, has traditionally been, and for a long time will likely continue to be, dictated by those identified as white in the U.S.

The fourth of these theories is Kinder and Sears’ (1981) concept of symbolic racism, which holds that the racism espoused by many whites is no longer rooted in crude notions of the biological inferiority of blacks. Rather, this modern racism is a combination of historically derived negative affect pertaining to blacks, as well as stereotypical assumptions about black group behavior believed to conflict with so-called “American” values such as independence, self-reliance and fairness. For Kinder and Sears, this framework best explains white resistance and opposition to policies such as affirmative action and social welfare (from which blacks are believed to disproportionately benefit), as opposed to traditional biological racism.

The implicit but essential common denominator in all of these theories is a process of conditioning through learning and reinforcement, creating what Omi and Winant (1989) call the “common sense” around race and its definitions in the United States. Helping to sustain these racial assumptions/stereotypes is the minimal interactions that whites and blacks, as two opposing ends of the racial spectrum in the U.S., continue to have in educational, professional and residential contexts despite the dismantling of legal barriers to social commingling (Greenblatt, 2006; McClain and Stewart, 2002; Kinder and Mendelberg, 1995; Massey and Denton, 1993).

As mentioned earlier, racially rooted assumptions about the nature of intelligence continue to assert themselves in the “objective” scientific work of some white researchers. In their 1994

work, *The Bell Curve*, Herrnstein and Murray find, unsurprisingly, that controlling for socioeconomic factors, blacks score lowest on standardized tests, with whites scoring highest. Although widely criticized by many academics for its serious methodological flaws, the work and its conclusions were a sufficient call for sweeping policy decisions based on race by adherents at the time. One prominent convert was Francis Lawrence, then president of Rutgers University, who asked somewhat rhetorically how his school should approach standardized testing during admissions when dealing with a “disadvantaged population that doesn’t have the genetic hereditary background to have a higher average?” (Graves, Jr. and Johnson, 1995: 279). Lawrence was hardly alone in his gross assessment of black intellectual capacity. Graves, Jr. and Johnson reported that a statement endorsing this racial perspective on intelligence, which appeared in the Wall Street Journal, was signed by no less than 52 psychometricians from prominent U.S. academic institutions (279).

Not even revered names in science are immune to generalizations of the connection between race and intelligence. Nobel laureate James Watson, credited with co-discovery of the now famous Watson-Crick model of the structure of DNA (the so-called “double helix”), is quoted in a newspaper interview as being “inherently gloomy about the prospects of Africa’ because ‘all our social policies are based on the fact that their intelligence is the same as ours, whereas all the testing says not really.’” Watson would go on to say that while he may “hope that everyone is equal, ‘people who have to deal with black employees find this is not true.’”<sup>26</sup> Perhaps the greatest irony of Watson’s remarks was that earlier U.S. census data revealed that

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<sup>26</sup> From the article, “The elementary DNA of Dr Watson,” reported by the Times Online on October 14, 2007 ([http://entertainment.timesonline.co.uk/tol/arts\\_and\\_entertainment/books/article2630748.ece](http://entertainment.timesonline.co.uk/tol/arts_and_entertainment/books/article2630748.ece)).



black African immigrants, on average, demonstrate far higher educational attainment than either native-born citizens, or white and Asian immigrants from more affluent nations.<sup>27</sup>

Beyond methodological problems, the ease with which so many members of the scientific community blithely discount, overlook or reject obvious and historically rooted reasons for Herrnstein and Murray's results in favor of an ahistorical and blatantly racist interpretation is troubling, if not unexpected. The most breathtaking aspect of this behavior, however, is that these scholars apparently see the intelligence problem as applicable to blacks and others as *entire* groups. This despite the historical *fact* of black intellectuals and scientists, and the recognition that intelligence matters, if at all, on an *individual* level. There are, after all, no endeavors in society, scientific or otherwise, that depend on the IQ levels of *entire racial groups* for success. Furthermore, it is revealing that "scientific evidence" into these racial disparities in intelligence did not prompt calls to determine the IQ necessary for political participation, or whether the implied genetic problem could be remedied through intermarriage with "smarter" whites. Rather, the first action by those persuaded was to propose ways to curtail higher educational opportunities for entire groups of nonwhites on the grounds that *all* members of these groups are inherently deficient in this area. Given the historical nature of the white-black dynamic assumed in most race theories, this tendency, while disappointing, is far from unexpected.

Another aspect of racism, institutionalized racism, also plays out more directly in health outcomes. Vaughn Sarrazin, Campbell and Rosenthal (2009) find that hospital and residential segregation are highly correlated, suggesting that hospital segregation is largely an artifact of de facto residential segregation. Black patients suffering from acute myocardial infarction (AMI)

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<sup>27</sup> From the article, "African-Born U. S. Residents have Achieved the Highest Levels of Educational Attainment," in *The Journal of Blacks in Higher Education*, No. 4. (Summer, 1994), pp. 10-11.

were more likely than their white counterparts to be admitted to high-mortality hospitals, an outcome that increases with the degree of hospital/residential segregation. Their most disturbing finding, however, is that after controlling for residential proximity to the closest hospital (within 2 miles; keeping in mind that the standing order for transporting AMI patients is to get them to the closest hospital), blacks were nonetheless significantly more likely than whites to be taken to a more distant and highly segregated hospital. Interestingly, the highest degree of residential and hospital segregation geographically was found in the Midwest, not the South, which had the *lowest* level of hospital segregation.

Clear racial differences appear across the full spectrum of health care treatment, even under “universal” systems such as the Veteran’s Administration and Medicare. Black patients are less likely to receive renal and other transplants, less likely to undergo standard treatments for ischemic heart disease such as angioplasty, and more likely to undergo amputations and hysterectomies than their white counterparts (Geiger, 1996; van Ryn and Burke, 2000; Shulman et al., 2009). Black patients also have less access to treatment for substance abuse, and experience differences in the treatment and management of pain, with white male physicians less likely to prescribe adequate medication for chest pain (Weisse et al., 2001; Lo and Cheng, 2011). In testament to the pervasiveness of racism and its depth in the American psyche, Escarce et al. (1993) offer the stark assessment that “Race...may influence physicians’ clinical decisions in ways that physicians do not even recognize but that are not justified by medical need.”

## **Conclusion**

As the debate over race and intelligence and differential treatment in health care settings

suggest, racism is a pervasive element of the American social experience. The four prominent race theories discussed, together with the examples, contribute to a clearer understanding of both the depth and influence of assumptions about the position, character and potential of black Americans in the country's racial hierarchy. The overarching picture these theories present is of the potent role of race and racism in the lives of Americans. As we will see in later chapters, racism also underlies the origins of American federalism and the state-level political cultures that spawned it. It is also important for understanding the ways in which black Americans as a group are socially constructed with respect to policy, often with negative consequences.

## Chapter 2

### **Backdrop to the Political Determinants of Health in the United States: American Federalism and Racialized Political Culture**

#### **Introduction**

Harold Lasswell once famously described politics as “who gets what, when, how” (Laswell, 1936). In the United States, the political structure that shapes the answer to these interrogatives is federalism. In a follow-up to the discussion of race in Chapter 1, this chapter examines the U.S. system of governance, how issues of race permeate it, and its role in sustaining racial disparities in health and other aspects of life in U.S. society.

#### *American Federalism*

Weissert and Weissert (2006) define federalism as “a system of rules for the division of public policy responsibilities among a number of autonomous government entities” (238). American federalism contrasts sharply with similar systems in Canada, Germany and other nations, where the federal government is strong relative to provinces, states and other sub-units. Particularly in matters of health, the individual U.S. states are “probably the most pivotal government actor in health care,” since it is these subunits that “implement and help define federal policies, define and implement their own policies, and define and oversee local health-related activities” (Ibid)

American states have an established role in creation and innovation in health policy as well as health service delivery. They have substantial discretion in administration and the setting of eligibility for means-tested entitlement programs such as Medicaid. States also have different geographical features, natural resources and demographics, resulting in differential economic resources and differing health needs in their respective populations. Similarly, states have their own respective political cultures that channel and interpret American values in distinct ways that shape policy.

But no discussion of the U.S. federal system would be complete without reference to some of the less noble values that shaped it—the legacies of which linger to this day. It is clear from the level of accommodation to the larger southern states and their pernicious institution of chattel slavery, that a belief in white supremacy permeated the framing of the U.S. Constitution and the federal system. The South’s “lust for slavery” (Finkelman, 1999) and the acquiescence of northern representatives to the demands of slaveholding states, would have broad implications for U.S. federalism.

### *Slavery, the Constitution and American Federalism*

The traditionally limited scope of authority of the U.S. federal government compared to other federal democracies (Radin and Boase, 2000) is no accident. Similarly, the variety of “checks and balances” that define American federalism—a bicameral legislature, three separate branches of government, and large majorities for amendments and overrides—reflect more than simple fear of domination by a tyrannical central government and an obsession with personal liberty. These and other aspects of the U.S. Constitution were the direct result of concessions to

the Southern states over the institution of chattel slavery. Constitutional law scholar Paul Finkelman argues that the Constitution is an explicitly pro-slavery document (Finkelman, 1999, 2001). He identifies “five provisions” that when “[t]aken together...gave the South a strong claim to ‘special treatment’ for its peculiar institution.” These provisions were Article 1, section 2, clause 3 (the “three-fifths” clause), and section 9, clauses 1 and 4 (enabling, respectively, the African slave trade until 1808 and a three-fifths head tax on slaves should a capitation tax be levied); Article 4, section 2, clause 3 (the “fugitive slave” clause) and Article 5, which prevented any amendment of Article 1, section 9, clauses 1 and 4 until 1808 (Finkelman, 1999:428).

James Madison’s notes from the Constitutional Convention are also illuminating. He noted that much of the debate over representation in the new legislature stemmed not from differences in the size of the states but “principally from their having slaves or not.” As a solution, Madison “proposed two branches of Congress, one in which slaves would be counted equally with free people to determine how many representatives each state would have, and one in which slaves would not be counted at all,” and in which “the Southern Scale would have the advantage in one House [due to its slave-skewed population], and the Northern in the other.” (Finkelman, 2001:14)

The sum total of these and other Constitutional concessions in defense of chattel slavery was a federal government with an exceptionally limited scope of authority, a fact well recognized by both pro- and anti-slavery forces of the day (Finkelman, 1999, 2001). Meanwhile, provisions like the fugitive slave clause in effect forced even free states to defend the practice of chattel slavery by compelling them to “recognize the claim of an owner who could demonstrate that a person was a runaway from his service” irrespective of their own laws regarding the institution (Maltz, 1992: 471). These explicit rules were directly supplemented by another class

of provisions, such as Article 1, section 8, clause 15 (the “domestic insurrection” clause that compelled Congress to intervene to stop slave revolts and other rebellions), as well as other provisions like Article 4, section 1 (the “full faith and credit” clause). Finkelman suggests that while clauses from this latter class of provisions did “not inherently favor slavery” and should not be taken as direct proof of the pro-slavery argument, they functioned nonetheless to protect “the institution [of slavery] when interpreted by the courts or implemented by Congress after the adoption of the Constitution” (430).

The slaveholding south was similarly advantaged by the Electoral College (Article II, Section 1, Paragraph 2) and the required three-fourths majority of states for ratification of Constitutional amendments (Article V). The Electoral College, by allowing for the “indirect election of the president...based on congressional representation...gave whites in slave states a disproportionate influence in the election of the president,” while Article V virtually “ensured that the slaveholding states would have a perpetual veto over any constitutional changes” (8).

The fact that delegates from “free” states were nonetheless able to compromise on the issue of African bondage for the sake of union suggests that notions of white supremacy and its correlate, inherent black inferiority, were present among most Convention delegates. Compromisers included antislavery delegates like Gouverneur Morris of Pennsylvania, who at one point during the Convention gave an impassioned speech suggesting that the delegates “at once take a friendly leave of each other” rather than placate the broad and incompatible demands of the slaveholding south (Finkelman, 1999: 447). This embedded racial understanding is suggestive of why South Carolina senator James Henry Hammond in 1858 could “view slavery as the ‘mudsill’ for American society, on top of which all whites could compete as equals.” The concept was an appealing one that, according to Finkelman, “[t]he Republicans easily

carried...North, where it was used to organize whites. Jeffersonian democracy led to racism, elevating all whites to equality on the backs of slaves and free blacks” (Finkelman, 2001:126).

In total, this domination of early American institutions by slavery and the concerns of slaveholding states had important implications for the development of the social welfare state and later institutions in the United States.

### **Strong States and Social Welfare Bifurcation**

Efforts to placate the slaveholding South led to the enshrinement of institutional designs and Constitutional provisions that created a “[federal] government of limited powers” in which traditionally “Congress lacked the power to interfere in the domestic institutions of the states” (Finkelman, 1999:431). Concessions like the “Three-fifths Compromise,” meanwhile, guaranteed a disproportionately influential political voice to populous, yet franchise-restricted, slaveholding states in the national legislature.

Scholarly attempts to explain the laggard performance of the U.S. in social welfare (Quadagno, 2004) frequently undervalue the role that chattel slavery, white supremacy and their prominent place in the formation of early U.S. political institutions has played in shaping this history. Rather than abandon slavery, delegates from slaveholding states sought (and won) what Finkelman has described as “affirmative action for the master class” as payment for their cooperation and entry to the Union. Consequently, U.S. federalism has been steeped at the national and state level in a racialized political culture, mired from day one in well-rooted assumptions of white male supremacy and the devaluation, dehumanization and demonization of



people of African descent. This emergent tendency is evident in the development of social welfare policies over the centuries following the establishment of American federalism.

### *Early Social Welfare Institutions*

The term “bifurcation” refers to the systematic way in which social welfare institutions and programs in the United States, both federal and state, have tended to take on a uniquely dualistic character. Certain programs have traditionally been viewed as socially acceptable forms of welfare, while others, typically those for the indigent, are considered either demeaning to the recipient or dependency-breeding handouts to the undeserving. Welfare programs of the former type (e.g., Medicare, VA hospitals) are usually universal in nature, with recipients automatically qualifying for entitled benefits or eligible due to military or other service. In contrast, programs of the latter kind (e.g., Medicaid, food stamps) are usually means-tested, requiring recipients to submit a variety of personal information and conform to a range of requirements in order to prove need or retain eligibility.

One might expect the two program types to be populated by whites and nonwhites in numbers roughly proportional to their population demographics in U.S. society. However, in the United States, where race and class have been so tightly intertwined for most of the nation’s history (McClain, 1996:870), the universal welfare programs have typically been beneficial largely to whites, while means-tested programs are almost exclusively associated with racial minorities, particularly black Americans (Skocpol, 1995). Furthermore, programs identified with blacks have consistently come under political attack for, among other criticisms, breeding dependency among recipients—a point that has not escaped scholarly notice (Skocpol, 1995;

Williams, 2003; Hancock, 2004; Bobo and Charles, 2009). Yet there have always been signs that this racially stratified approach to social welfare, whether administered by the federal government or the states, would develop in the United States. This trend was apparent even in the country's earliest welfare institutions: the Freedman's Bureau and the pension system for Union Army veterans of the Civil War and their dependents.

Linda Williams (2003) provides powerful evidence of how the Freedman's Bureau, created primarily (but not solely) to assist newly emancipated blacks after the Civil War, shared a number of political parallels with the welfare programs from which some black Americans benefit today. Despite the monumental task before it, the Bureau had a "very tenuous status" from the outset, being established "as a temporary division of the War Department and slated to operate for only one year after the end of the war" (Williams, 2003:36).

Strapped for resources and serving a large and needy population, the Bureau was constantly understaffed and under-funded, with only about \$17 million appropriated for its operations by Congress and 2,441 agents working for the Bureau over its six-year lifetime (36, 37). And despite much of the Bureau's work revolving not around cash disbursements but the distribution of unhealthy food rations (consistently mainly of pork and starchy vegetables), the Bureau was relentlessly attacked on various political fronts as breeding dependency and contrary to self-reliance and other American values (thus requiring its swift dismantlement) (51).

Ironically, the Bureau's most ambitious attempts to counter this claim by fostering economic independence, land ownership and entrepreneurship among the former slaves, which had proven successful through land transfers to some blacks in South Carolina, were consistently

defeated by President Andrew Johnson, an ardent white supremacist who worked at every turn to undermine the Bureau's efforts (25, 55).

In direct contrast, the Civil War Pensions system, which despite its universal language primarily benefited Northern whites and their dependents. The system was framed in almost the exact opposite language of deservingness and entitlement, despite its enormous expense, largesse, cash payments, and corruption. As Williams explains, unlike the Freedman's Bureau,

“Its federal appropriations were assured from the start and grew dramatically...it increased both the numbers and the kinds of its beneficiaries...it provided cash assistance, not mainly goods and services...[and] it had a disproportionately white clientele.” (57)

To the modern observer, the sheer generosity of the pensions, which lasted from 1862 into the early 20<sup>th</sup> century, is breathtaking. Payments averaged “\$122 annually in 1866 and \$139 annually in 1900” per recipient, at a time when the average annual income was only \$375 (59). Far from breeding dependency, the Republican Party and political leaders of the day argued that the large pensions were needed to ensure that “ ‘any man who honorably wore the Federal uniform’ ” would never end up needing “the demeaning assistance” given to the “freedmen...refugees from the South, as well as the poor white immigrants of the North” (57). Ironically, Williams reports that a substantial portion of the pension recipients were actually widows and children. These indirect beneficiaries were entitled to the same pension as a fully disabled veteran if a husband's death was proven to be due to service-related disease or injury (59). This spread of pension benefits to survivors (even to women who married veterans up to 25

years after the end of the war) was the direct result of successive laws passed to ease eligibility restrictions (58, 59). Some scholars have pointed out that many of the more than 186,000 blacks who served in the Union Army surely benefited from the “universal” Civil War pension system (Skocpol, 1995:260). While some undoubtedly did, the host of slavery-derived barriers that black men and women would have faced in receiving benefits would have thwarted the attempts of most to gain benefits (Williams, 62-63). Barriers would have included the lack of formal marriage certificates for pension-seeking widows (slaves couldn’t legally marry), illiteracy, a lack of basic funds to file necessary legal documents, higher mortality rates, and residency primarily in the racially hostile South. To wit, Williams reports that “By 1890 pension claims were based on the service of just over 51 percent of black soldiers and their families,” compared to 80 percent for their white counterparts (64).

As institutions, the aid provided by both the Freedman’s Bureau and the Civil War pensions was out of sync with the values of individualism and self-reliance embedded in American social and political culture (Williams, 65; Skocpol, 261). What appears to have set the two institutions apart was the way in which the benefits offered were popularly viewed. As Williams describes, the Civil War pensions (which extended to family members who had never served in the Army) were seen as having been earned through military service, whereas the rations and restricted benefits provided by the Freedman’s Bureau to emancipated blacks were considered handouts. This viewpoint, in which racial stereotypes and racism were blatantly evident among many opponents of the Bureau from its inception, prevailed despite the fact that blacks remained “uncompensated for 250 years of unpaid labor” (47). This earliest pattern of bifurcation (and outright exclusion) in social welfare policy, fueled by racism and the ever-

present tension between America's libertarian and egalitarian values (Stone, 2005), would be repeated in major social welfare reforms in the decades to come.

### *Major Social and Health Reforms*

Below is a brief description of three major pieces of legislation that resulted in the creation of institutions aimed at improving health and promoting social welfare in the United States. In each instance, explicitly (or implicitly) racial considerations meshed with the state-centric features of U.S. federalism and normative concerns that the programs clashed with American values. Typically the end result was either formal or informal bifurcation, exclusion or demonization of the population to be served.

#### *Sheppard-Towner Act of 1921*

Designed to enhance maternal and infant health, this legislation was laden with "racial assumptions and practices" from the outset (Gordon, 2003:180). Opponents of maternal coverage like Florence Kelley of the National Consumers' League worried that the Act would encourage "procreation and immigration" among a range of "men whose wives notoriously work for wages" (178). Kelley's list of undesirables with such working wives included "alcoholics, the mentally defective...Negroes" and "unskilled aliens, particularly the non-English speaking ones" (Ibid). Once passed, administration of the program was left to the states. In the racialized American context, this resulted not only in stark differences in "per capita spending on mother's aid" which "ranged from \$0.82 in New York to \$0.03 in Louisiana," to no black aid recipients at

all in some states with high black populations. Driving this exclusion was the concern in some states that making “maternity safe” for blacks, immigrants and the poor “was tantamount to ‘race suicide’” (181).

### *Social Security Act of 1935*

Developed in the wake of the Great Depression, the provision of old age insurance in what is commonly called Social Security is perhaps the most significant social welfare legislation in American history. Yet control by Southern Democrats of key leadership positions on Congressional committees due to seniority (Williams, 89) ensured that Social Security and other ostensibly “universal” New Deal welfare legislation would leave “fully 90 percent of the black workforce untouched” by these programs (Gordon, 185). This exclusion was achieved by ensuring that domestics (e.g., maids and servants) and agricultural workers, which accounted for the bulk of most black (and women) workers, were not covered by the social insurance provisions of the new legislation (Ibid). Further exposing the racial impetus of these choices by Southern members of Congress was their insistence on state control whenever possible, particularly for means-tested programs. The concern was that an active role by the federal government could lead to interference in the so-called “Negro question,” as well as the withholding of funds to states that discriminated against blacks (Skocpol, 159-160; Gordon, 183).

### *Aid to Dependent Children (ADC)*

Created in 1935 by Title IV of the Social Security Act, ADC (later renamed Aid to Families with Dependent Children, or AFDC) gradually replaced the earlier “widow’s pensions” system designed to keep mothers out of poverty and “in the home” where they could properly raise children and fulfill other domestic duties. However, consistent with other social programs as described by Williams (2003), as white widows became eligible for survivors’ benefits under the Social Security Act, the increasing association of black mothers with ADC resulted in frequent and illegal denial of benefits to them and greater scrutiny of the program itself (Hancock, 2004).

#### *Medicare and Medicaid in 1965*

Passed as part of the “Great Society” legislation promoted by President Lyndon B. Johnson, Medicare and Medicaid represent both the most substantial step toward national health insurance in the United States prior to the 2010 Affordable Care Act. These legislative milestones also typify the tendency toward bifurcation that plagues U.S. social welfare reforms. Medicare, the health coverage program for the elderly, is a federally administered, universal system that has come to be viewed as a virtually “sacrosanct” entitlement (Gordon, 2004). Medicaid, by contrast, as a coverage scheme for the indigent, is means-tested, largely state-administered (leading to variation in both benefits offered and eligibility), and frequently under political and budgetary attacks that narrow the range of services covered. This vulnerability exists despite the success that Medicaid and other Great Society health and poverty-reduction programs have had in improving health indicators like infant mortality among many black Americans (Williams, 2003; Gordon, 2003; Skocpol, 1995).

### *Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA)*

The capstone of President Bill Clinton's promise to "end welfare as we have come to know it," this 1996 act, which ended public assistance as an entitlement program, unequivocally focused on pushing mothers on public assistance into the workforce. At the same time, the act left unanswered the tough question of how to ensure that welfare recipients would actually perform work providing the benefits (including leave for childcare) necessary to safeguard the wellbeing of their children. In this sense, PRWORA can be viewed as embodying a "politics of disgust" around the issue of welfare, and its attendant images of the black "welfare queen" as lazy, hyper-fertile, undeserving and deviant, to their ultimate conclusion. PRWORA essentially focuses on individual-level factors (jobs and out-of-wedlock births), instead of the structural factors that create the circumstances for welfare usage (e.g., lack of local jobs, poor-performing schools, expensive contraception, underserved and hazardous neighborhoods). (See Hancock, 2004) Ironically, the stigma attached to public assistance in the U.S. extends to the recipients themselves, who internalize and express negative beliefs about other welfare recipients (Jarrett, 1996). Furthermore, the design of public assistance, as a means-tested program with large discretion for benefit dispersal given to individual caseworkers, has been shown to impart negative perceptions of government and politically disempower women on welfare (Soss, 1999).

### *American Federalism and Political Culture*

The previous examples illustrate a vital point for understanding the relationship between the meager social welfare outputs of the United States versus those of other federal systems in



the industrialized world. American federalism is embedded in a uniquely American political culture that has worked against the possibility of fully inclusive social welfare programs, and hence an equitable, racially integrated state, at the federal and state levels over much of the country's history. The slavery-driven institutional decisions formalized in the Constitution resulted in a relatively limited federal government, comparatively strong states, and a subsequent political culture that explicitly endorsed the marginalization and dehumanization of black people for nearly two centuries. To be sure, deeply embedded values of hard work (the so-called "Protestant work ethic"), individualism, entrepreneurship, and deference to market principles are also crucial themes of American political culture that, absent racial considerations, may make Americans particularly antagonistic to programs targeting the poor. Through this lens, the undeserving poor "serve as a negative example against which those who 'make it on their own' and 'earn their own way' can define themselves" (Skocpol, 253).

Yet the tenor of American political culture cannot be fully fathomed without special attention to the extent to which racism, racial segregation and racialized thinking have been embedded throughout American society and history (Myrdal, 1944). Without in-depth survey data, it is difficult to quantify the depth and dispersion of white antagonism toward blacks in American society. There are numerous sources, however, which suggest that the depths of this sentiment may run deeper than most researchers give credit.

The public messages and papers of President Andrew Johnson, for example, are filled with explicitly racist appeals to white supremacy and black domination, messages that were presumably designed to garner support from many of his listeners<sup>28</sup> (see Woolley and Peters,

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<sup>28</sup> A typical example of Johnson's racial attitudes is a message pertaining to his 1866 veto of "An act to protect all persons in the United States in their civil rights and furnish the means of their vindication." Passed by the Senate,

2007). Another key element of the American federal system, the Supreme Court, was equally party to the propagation of white supremacy and racism over much of U.S. history. Cases like *Dred Scott v. Sanford*, in which Chief Justice Roger Taney asserted that in the minds of the Founders and everyone else for more than a century that blacks “had no rights that the white man is bound to respect” (Marshall, 1987; Maltz, 1992), and *Plessey v. Ferguson*, establishing the “separate but equal” clause that fully legitimated legal apartheid, offer clues that separation from blacks was at least tacitly acceptable to most white Americans, even when it was clear that blacks continued to suffer grossly unequal treatment. Konvitz (1951) offers as one example data from the United States Office of Education, which showed that during this period of American apartheid, “Mississippi, in 1948-1949, spent an average of \$123 per white pupil in average daily attendance in grade and high schools, and only \$27 per Negro pupil.” While varying in degree, this pattern of unequal treatment was evident in all segregated states. The majority of schools were segregated through the undergraduate level of college in most states, with a number of states requiring segregated schools for the blind and other physically challenged students, and in some cases even the use of different textbooks (428-429).

Discrimination and segregation were legalized not only in education but in the most basic aspects of life, including marriage. Konvitz (1951) and Browning (1951) note that the most numerous type of race laws were those aimed at preventing mixed marriages. Far from being a phenomenon of the Deep South, anti-miscegenation laws prohibiting marriage between whites

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President Johnson offers lengthy justifications for his opposition to the bill, including that certain components of it “operate in favor of the colored and against the white race.” His objection also extends to the possible effect of the act on state laws, including those banning racial intermarriage. Here, Johnson offers as an example of accepted jurisprudence the words of a Chancellor Kent, who is quoted as saying, “Marriages between them [blacks] and the whites are forbidden in some of the States where slavery does not exist, and they are prohibited in all the slaveholding States; and when not absolutely contrary to law, they are revolting, and regarded as an offense against public decorum.” (Andrew Johnson: "Veto Message," March 27, 1866. Online by Gerhard Peters and John T. Woolley, *The American Presidency Project*.)

with blacks were still in place in 29 states in 1950 (bear in mind that Alaska and Hawaii had not yet achieved statehood). California, moreover, had only repealed its own anti-miscegenation law in 1949, just prior to Konvitz's analysis. As already well known, most states in the "Jim Crow" south required segregation of buses, streetcars and other modes of commuter transportation, as well as public facilities such as hospitals and gymnasiums, playgrounds and prisons. Several states even refused to allow whites and blacks to fight boxing matches against one another (431).

These examples are just a figurative handful of some of the real and legal limitations imposed by racial segregation. They also point to the kind of structural barriers that truly universal social welfare policies would have faced in the United States until the early 1970s. Thus while it is plausible that other American values may account for the country's history of bifurcated and threatened social programs, several important questions are raised. What would a universal healthcare system, for example, look like in a country of legalized racial segregation? How could a federal system permeated by white supremacy and racism from the outset deliver policies that would equally serve the very groups targeted for marginalization? Was such a scenario even possible given the veto points within the system held by relatively powerful states determined to maintain a racial order? The confluence of a political structure and policy spaces dominated by a racialized social and political culture at the very least complicates, and quite possibly negates, the possibility of any outcome other than what emerged over the short span of America's social welfare history.

## **Conclusion**

The traditionally limited federal government that exemplifies American federalism has historically meant strong states whose policy actions have often been conditioned by their distinct political culture (Weissert and Weissert, 2006). Gordon (2005), for example, shows how the federal structure instituted in what Finkelman calls the “pro-slavery” Constitution enabled Congressional representatives from the southern states to alter or veto New Deal health legislation that conflicted with their racial marginalization of blacks (182-183). In this instance, U.S. federalism allowed southern states to have a disproportionate impact on national policy in ways that may not have occurred in a more centralized governance system. Similarly, Brown (2003) has shown that decisive federal government action and involvement has been critical to the success of national health insurance policies, for example, in federal states such as Canada and Germany, since only the federal government is positioned to mandate policy and redistribute economic and other resources to ensure equitable coverage across states. Once the deep-seated racism that has long underlain and shaped American federalism is considered, it becomes easier to grasp how racially bifurcated health policies, the lack of political will to aggressively tackle gross health disparities that largely plague blacks, and differential health outcomes today emerge as natural consequences of American federalism.

### Chapter 3

## **Backdrop to the Political Determinants of Health in the United States: Social Construction of Target Groups**

### *Introduction*

American federalism is the basic framework that defines the space in which all politics and subsequent policy within the United States unfold. That space, as highlighted in the previous chapters, has been heavily shaped by a social and political history of racism and legal assertions of white supremacy. In this final theoretical chapter, I examine the social construction of target groups as a key component of the overarching theory built over the last two chapters—how race, American federalism and political culture, and the social construction of target groups in policymaking, converge over time to create a legacy of sub-optimal health outcomes for Americans in the present day.

### *Setting the Stage for Social Construction*

As discussed in Chapter 2, anti-black racism and white supremacy have been long embedded in American political culture at the federal and state levels. In that sense, it is unsurprising that successive U.S. social welfare policies in their design have often reflected the largely negative ways in which black Americans and other nonwhites have been constructed in social, political and popular discourse. The series of laws, ordinances and regulations passed at the state and federal levels during legalized segregation, which lasted from the end of post-Civil

War Reconstruction to 1967, provide the clearest examples of this social construction of black Americans.

John Cell, in his 1982 book, argues that, “segregation must be recognized as one of the most successful political ideologies of the past century.” Massey and Denton (1993), meanwhile, view “racial segregation and its characteristic institutional form—the black ghetto” as “the key structural factors responsible for the perpetuation of Black poverty in the United States.”

Decades earlier Myrdal, in his classic 1944 examination of race in America, exposed the contradictions and consequences of racial segregation in the American South, most notably around the issue of intermarriage.

“Things are defended in the South as means of preserving racial purity which cannot possibly be defended in this way. To this extent we cannot avoid observing that what *white people really want is to keep the Negroes in a lower social status* [emphasis in original]. ‘Intermarriage’ itself is resented because it would be a supreme indication of ‘social equality,’ while the rationalization is that ‘social equality’ is opposed because it would bring ‘intermarriage.’” (591)

In this vein, the passage and enforcement of segregation laws, legislation specifically designed to prevent interracial marriage (or “miscegenation) and restrict interaction with whites, as well as to curtail the political, social and economic potential of blacks and other nonwhites, are powerful expressions of anti-black affect and white supremacy. The passage of such laws represents the convergence of both the political will (including a willingness to allocate scarce financial resources to enforcement) and popular support required to establish legislation. Such laws, by their very nature, embody deep-rooted and widespread psycho-cultural beliefs in the inherent distastefulness, disgust or corruption of social interactions between nonwhite (primarily

black) and white people. Over time, these efforts to marginalize and ostracize black citizens went beyond mere physical and social separation. In numerous states, counties and towns, this extended to the use of intimidation and violence to prevent black citizens from exercising their constitutionally guaranteed rights to vote, peaceably assemble and enjoy equal protection under the law. This vigorously maintained social apartheid, prefaced on a vehement denial of black citizens as worthy to participate even in the body politic in many states through poll taxes, literacy tests and other legal and extralegal devices (such as murder), prevailed in much of the United States up through the latter half of the 20<sup>th</sup> century. As such, it suggests firmly embedded beliefs among the white citizenry of many U.S. states in the past; beliefs powerful enough to override normative acceptance of the validity and supremacy of the U.S. Constitution and the American values of democratic participation and governance. Moreover, even in the post-1960s civil rights era of today, public opinion polls consistently show white resistance to corrective policies primarily associated with blacks, such as affirmative action (Hutchings and Valentino, 2004). Similarly, black Americans are still consistently rated by many white respondents in public opinion surveys as lazy or not trying hard enough to succeed (Bonilla-Silva and Dietrich, 2011). Racialized discourse has also been associated with political wrangling and challenges over Medicaid and public assistance (Benson-Smith, 2005; Schram, 2005; Williams, 2003, Hancock, 2004), captured most vividly in the controversial Moynihan Report and in the image of the black “welfare queen” propagated by conservative opponents of public assistance from the 1980s (Stone, 2002; Hancock, 2004).

Given this context of anti-black racial norms and their centuries-long duration in some states, it is unlikely that such beliefs would have immediately dissipated with the enactment of federally mandated legal correctives (e.g., the Voting Rights Act of 1965; *Loving v. Virginia*

ruling). Rather, the anti-black affect that fueled such intensive and sustained legalized discrimination should continue to exert an inertial (legacy) effect on interactions between white and black citizens over time, particularly in state polities where racial order was most rigorously enforced. White political entrepreneurs and policymakers operating in a new and externally enforced “colorblind” policy space, as members of such polities themselves, would be equally subject to the legacy effects of such highly racialized and historically rooted political cultures. Beyond their own internalization of racial norms (including intersectional race/gender/class stereotypes and anti-black affect), policymakers must negotiate constituencies in which racialized aspects of their respective state political cultures remain tacitly, if not implicitly, activated. One probable outcome of operating in this unknown political space is that less scrupulous political entrepreneurs would very likely exploit still-present racial sentiments for political gain, while others might simply ignore addressable problems for fear of the stigma such positive action might accrue, which could jeopardize their political ambitions.

These political actors are the presumed mechanism through which the legacy effects of the legalized discrimination of the past, as an indicator of a state’s racialized political culture, come to impact modern health outcomes such as infant mortality. Specifically, through their action (or inaction) on legislation perceived to primarily benefit black citizens, such policymakers over time perpetuate a political climate in which the health needs of black citizens addressable through public policy go unknown, unmet, or underserved. When such policies are enacted, they are then inordinately subject to sanction. These same policymakers would seek to enact or leave unchallenged policies that concentrate black citizens in unhealthy living environments (e.g., near incinerators or chemical plants, high crime, few economic opportunities) (Bullard, 1983), or that actively subject them to unhealthy lifestyle options (e.g.,



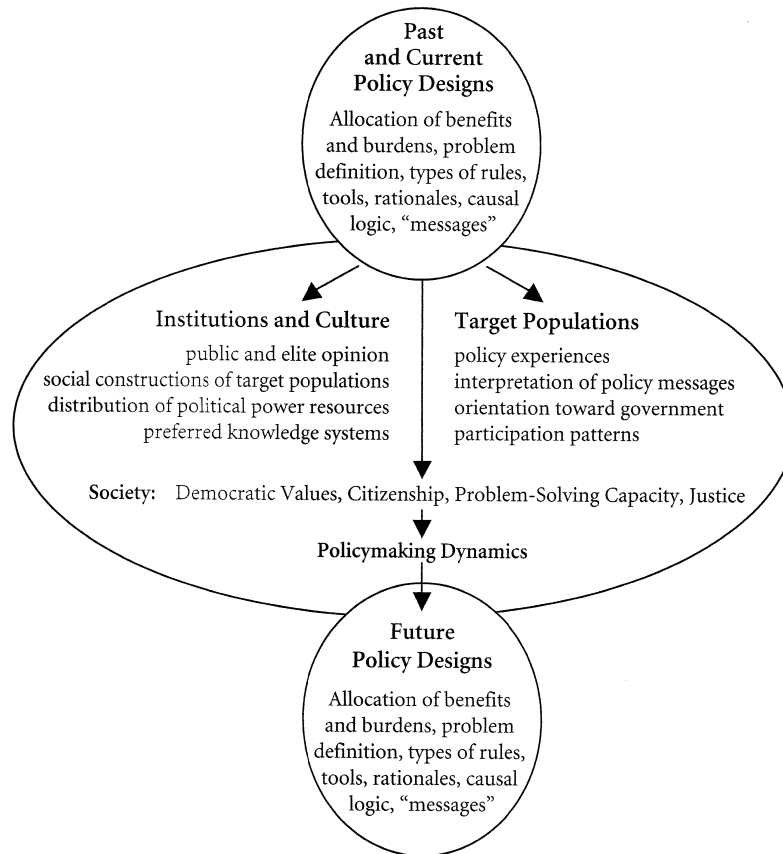
disproportionate targeting of predominantly black communities with liquor stores, gun shops and advertisements for cigarettes) (LaVeist and Wallace Jr., 2000; Grier and Kumanyika (2008). This type of policymaking would also tend to leave targeted communities almost solely with unhealthful dietary options (e.g., high concentrations of fast food restaurants, few supermarkets) (Morland, Wing, Diez Roux and Poole (2001)).

### *Social Construction of Target Groups*

In examining why differential policy designs that enable these outcomes emerge, culminating in unequally distributed benefits and punishments among nominally equal population groups, Ingram, Schneider and deLeon (2007) offer the social construction of target groups (or populations) as a framework for addressing this and related policy dilemmas. The authors describe the basic theoretical premise of the social construction of target groups as follows below.

“Historical and contemporary policy designs have a long-term effect in that they (along with other factors in the societal context) identify target populations and allocate rewards and sanctions to them. Policy designs shape the experience of target groups and send implicit messages about how important their problems are to government and whether their participation is likely to be effective.” (96)

**Figure 3.1 Social Construction and Policy Design (Ingram, Schneider and deLeon, 2007)**



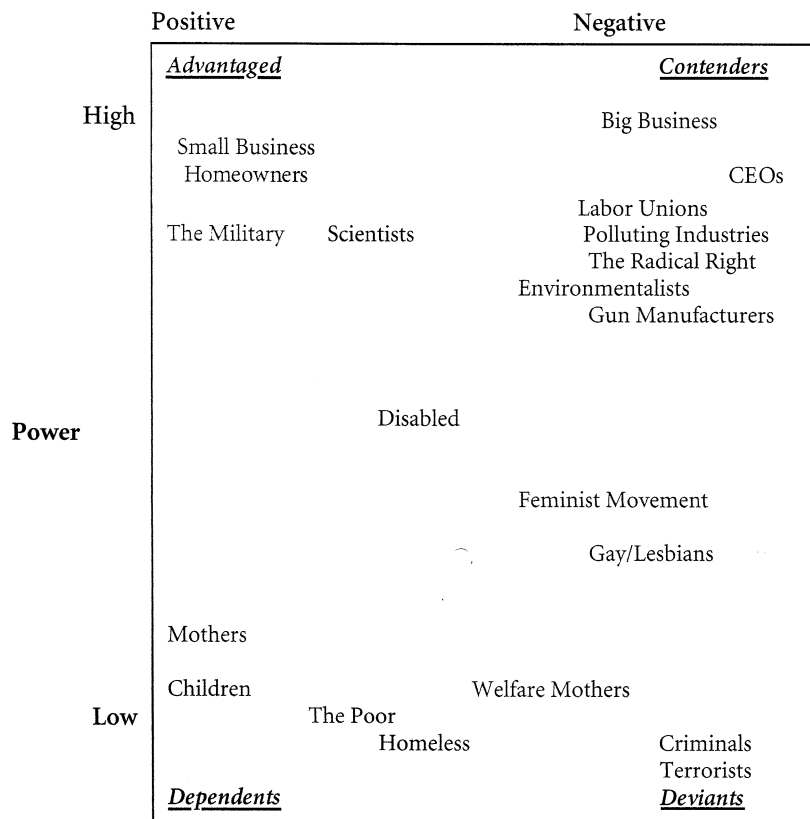
The social construction of target groups provides a framework for understanding how racialized political culture internalized by policymakers and other political actors can find expression through policy design that ultimately results in the socioeconomic conditions that trigger and exacerbate poor health and health disparities. Proposed by a variety of scholars as a means of explaining policy design (see Ingram, Schneider and DeLeon, 2007; Schneider and Ingram, 2005; May, 1991) and used in empirical analyses of policy outcomes by many others (see Dialto, 2005; Soss, 1999; Schneider, 2006; Chanley and Alozie, 2001; Pride, 1999), this framework views policy as being developed with a particular target group, and the status ascribed to those groups, in mind.

The ways in which policies are designed “also shape institutions and the broader culture through both the instrumental (resource) effects of policy (such as new rules and new organizations) and the rhetorical/symbolic (interpretive) effects. Thus, policy designs impact public and elite opinion, the social construction of target groups, the distribution of political power resources, and even the legitimacy of various knowledge systems” (Ingram, Schneider and deLeon, 2007:97) Within this context, recall that members of Congress, and presumably other elected officials at the state level, are primarily motivated by a desire for reelection (Mayhew, 1974), and are thought to engage in three key behaviors—advertising, credit claiming, and position taking—in a bid to distinguish themselves from their colleagues and rivals, justify their lives at the public’s largesse, maintain salience in the mind of an often fickle public, and buttress themselves against the threat of possible challengers. In this context, when creating policy, politicians are assumed to rely on either a positive or negative social construction of the group(s) that is the intended target of the policy in ways that enhance the efficacy of these three key behaviors for realizing reelection. Accordingly, target groups, based on their perceived level of power, are typically positively constructed for policy design purposes as either “advantaged” or “dependent,” or negatively constructed as either “contenders” or “deviants.”

As defined by Ingram et al. (2007), *Advantaged* groups “have high levels of political power resources and enjoy a positive social construction as deserving people important in the political and social hierarchy” and likely include groups such as small businesses, senior citizens, and the military. *Contender* groups, such as big business, some environmentalist groups, and the radical right, are viewed as having “substantial political resources but are negatively regarded as relatively selfish, untrustworthy, and morally suspect.” Groups viewed as *Dependents*, meanwhile, are positively constructed but fail to receive the benefits often channeled to

advantaged groups due to their low political power. Dependent groups include widows and orphans, most students, and the homeless, and are generally considered less deserving than advantaged groups. The most negatively constructed groups are *Deviants*, who “lack both political power and positive social construction and tend to receive a disproportionate share of burdens and sanctions.” (103) Tellingly for policy efforts to address black infant mortality, groups in society constructed as deviant include welfare mothers, suspected and actual terrorists, criminals, illegal immigrants and a host of others.

**Figure 3.2 Social Construction of Target Groups (Ingram, Schneider and deLeon, 2007)**



The meanings of these social constructions are embedded in a state’s broader political culture, which I suggest is the source from which all positive or negative constructions are ultimately derived for policy purposes whenever the states are involved. Policymakers must effectively sell their proposed policies to the public or face possible reprisals at the ballot box. Consequently, depending on which descriptive quadrant the target group is perceived to fall under in the eyes of policymakers and the public, politicians can be expected to draft policy in

ways that play to perceived public sentiment, thereby enhancing their own electoral strength. While not explicitly stipulated in the theory of social construction of target groups/populations, a correlate of the creation of policies directly targeting a negatively constructed population or group is *inaction* in developing policies that could be construed as beneficial to such groups. Deliberate inaction is, after all, a legitimate form of political action (Howitt and Wintrobe, 1995; Hacker and Pierson, 2011). This point may be especially poignant in the case of black infant mortality considering the largely negative social construction of black Americans in general and black mothers specifically. This effect may be even stronger in states with histories of intensive racial segregation that also have longstanding and large racial disparities in infant mortality.

A critical point in the definition of social constructions is the presence or absence of political power resources in the target group. This power substantially determines the robustness of policies. Soss (1999), in a comparison of Aid to Families with Dependent Children (AFDC) and other social welfare policies, namely Social Security, demonstrates how these policies differ in both substance (means-tested versus universal) and administration (intensive and often idiosyncratic involvement by caseworkers compared to none) based on the population targeted. AFDC, a program utilized mainly by poor (often minority) women—a negatively constructed group with little political power, requires periodic reconfirmation of eligibility and face-to-face meetings with caseworkers, who exercise considerable control over the administration of program benefits. More importantly, Soss shows that the design of AFDC policy, in contrast to that of Head Start and Social Security, exacerbates the powerlessness of welfare mothers by teaching AFDC recipients negative lessons about government responsiveness to their needs, thereby suppressing other forms of political behavior, including voting.

### *Six Propositions of Social Construction of Target Groups*

Ingram et al. (2007) offer six propositions vital to the theory of the social construction of target groups that they propose. The propositions are as follows:

Proposition 1: Policy designs structure opportunities and send varying messages to differently constructed target groups about how government behaves and how they are likely to be treated by government. Both the opportunity structures and the messages impact the political orientations and participation patterns of target populations.

Proposition 2: The allocation of benefits and burdens to target groups in public policy depends upon their extent of political power and their positive or negative social construction on the deserving or undeserving axis.

Proposition 3: Policy design elements, including tools, rules, rationales, and delivery structures, differ according to the social construction and power of the target groups.

Proposition 4: Policymakers, especially elected politicians, respond to, perpetuate, and help create social constructions of target groups in anticipation of public approval or approbation.

Proposition 5: Social constructions of target groups can change, and public policy design is an important, though certainly not singular, force for change. The seeds for altering social constructions can often be found in the unanticipated or unintended consequences of previous policy designs.

Proposition 6: In degenerative policymaking contexts, differences in policy designs are related to different patterns of policy change.

The social construction framework also postulates that path dependency (and increasing returns) is expected to characterize two sections of the policy space: the conferral of benefits to advantaged groups and punishments to deviants (Ingram, Schneider and deLeon, 2007:112). In essence, path dependency suggests that how groups are defined or treated at an earlier period in time powerfully informs how those groups will continue to be viewed and dealt with going forward.

Briefly, path dependency as described by Pierson (2004) “refers to dynamic processes involving positive feedback, which generate multiple possible outcomes depending on the particular sequence in which events unfold” (Pierson, 2004). Path dependence is underpinned by five key concepts: 1) the connectedness of outcomes with temporally separated causal mechanisms; 2) the continuing legacy of processes once set into motion (what Pierson (2004) calls “inertia”); 3) the power of embedded social understandings to perpetuate and sustain an earlier embarked course; 4) the disproportionate impact that events (even seemingly minor ones) earlier, rather than later, in a given course can have on its trajectory over time (what Pierson calls



“contingency”); and 5) the steadily increasing returns from (or costs of) changing a course once its set into motion. (For a complete discussion of path dependency, see Pierson, 2000 and 2004.) For example, policies such as racially exclusionary housing covenants of the type described by Jones-Correa (2000-2001) in 1950 may demonstrate the connectedness of modern outcomes (e.g., the concentration of blacks in underserved and economically depressed communities today) with temporally separated causal mechanisms; in this case, the legal exclusion of black families in the past from living in or buying homes in wealthier, predominantly white communities.

As mentioned earlier, an unvoiced correlate to explicitly targeted policy designs is the absence of any policy design at all, or poorly designed policies, to address longstanding racial disparities in health. If politicians, as policymakers, are primarily concerned with reelection as Mayhew (1974) suggests, outright neglect of problems associated with a negatively constructed group, such as poor, unmarried black women and families in the case of black infant mortality, may have been the politically safest option for many past politicians. This seems particularly likely in the first decade after the *Loving v. Virginia* ruling, given policymakers’ own internalizations of racialized state political culture, the perceived political powerlessness of black mothers (particularly those on welfare constructed largely as deviant), and the possible electoral repercussions of championing the channeling of scarce political and economic resources to assist a group viewed largely as undeserving by constituents. Along similar lines, once this racial lens is applied to policymaking in crime and punishment in the post-civil rights era, the negative social construction of blacks may also explain the skyrocketing incarceration rates in the United States since 1970. This phenomenon is examined by Schneider (2006) in an ostensibly non-racial analysis of this trend using the social construction of target groups framework. Specifically, black Americans (especially males) are disproportionately imprisoned, at rates as high as 14 to 1

in some states compared to whites (Mauer and King, 2007), and experience rates of felony disenfranchisement today topping 20 percent in numerous states and 34 percent in Iowa.<sup>29</sup> In light of research by Pager and Western (2006), which shows that many employers today would still rather hire a white applicant with a criminal record than an equally qualified black applicant with no criminal record, a history of incarceration can be expected to severely limit the economic opportunities and mobility of black Americans that spend time in prison, especially over time (Western, 2002). These rising incarceration rates, and the subsequent felony disenfranchisement of significant portions of the black electorate, may help to explain the widening gap between white and black infant mortality rates over time. Specifically, a prison record undercuts the earning potential of black ex-offenders, thereby contributing to a cycle of criminal involvement, recidivism and neighborhood degradation. All of these factors can be expected to psychologically and physically impact the health of the entire community when formerly incarcerated individuals return to already depressed communities. In parallel, the loss of the right to vote due to felony disenfranchisement will remain a permanent condition for the vast majority of former felons, given the onerous requirements in most states for reinstatement.<sup>30</sup> In practical terms, this could mean growing neglect from politicians and policymakers of the very communities most in need of positive policy attention, as well as exploitation by the very same for political gain. Essentially, such communities and their inhabitants increasingly embody a social stratum that is negatively constructed along multiple dimensions (i.e., crime-ridden, poor, single motherhood, diminished political power, and black). One possible result of this convergence of factors is likely to be worse health outcomes for a state's black population, including in infant mortality.

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<sup>29</sup> According to data from The Sentencing Project, [www.sentencingproject.org](http://www.sentencingproject.org)

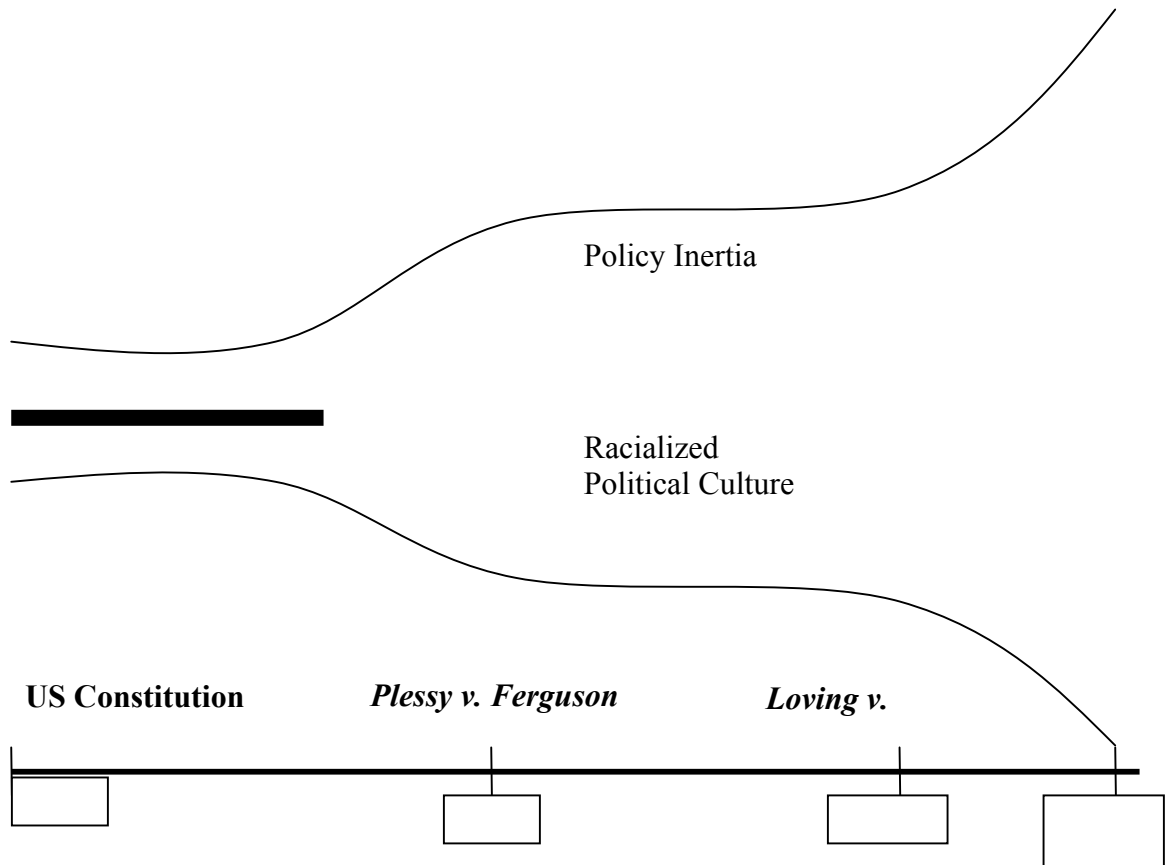
<sup>30</sup> Information on felony disenfranchisement in the states available from The Brennan Center for Justice, <http://www.brennancenter.org/>

## **Convergence of Race, American Federalism, Racialized Political Culture and Social Construction**

Across these introductory chapters, the story I have attempted to develop is one that begins with racism, founded on beliefs in white male supremacy and the dehumanization of black Africans, driven initially by a desire to preserve and continue the Atlantic slave trade and chattel slavery, primarily in the states of the traditional south. This racial animus preceded the drafting of the U.S. Constitution, as evidenced by the establishment of anti-miscegenation laws in colonies like Virginia from the late 17<sup>th</sup> century, and subsequently shaped the framing of the Constitution and American federalism itself. Relative to federal systems that emerged elsewhere, this result was and is a form of federalism defined by strong sub-units (in this case, states) and a comparatively weak central government. This outcome itself reflected compromises and acquiescence to large slave-owning states, which were fearful of any interference by a strong central government in the maintenance of slavery. These initial conditions emboldened a racialized political culture across the American states in which black Americans as a group have been negatively constructed socially as corrupting, undeserving of equal treatment under the law, and deviant with respect to policy. That this sentiment was present nationwide for much of the history of the United States is plain in successive U.S. Supreme Court rulings, from the *Dred Scott* decision to *Plessy v. Ferguson*, that reaffirmed white supremacy and notions of the inherent inferiority of black people. Compelling evidence of the same can be found in the stark differences in early social welfare policy, namely the negative rhetoric surrounding the embattled and short-lived Freedman's Bureau and fears that it would breed dependency in its largely black

clientele, versus the language of deservedness and sheer largesse that accompanied the decades-long and corrupt system of Civil War pensions accessed largely by whites (Williams, 2003).

**Fig. 3.3 How Past Racial Inertia Permeates the Policy Space Over Time**



Yet even in this already racialized sociopolitical context, policymakers and publics in the majority of U.S. states over time saw fit to take their negative social construction of blacks a step further. These states codified their negative affect in laws that mandated and enforced physical separation from blacks and the exclusion of black Americans as a group from normal social interactions with whites in virtually every sphere of life. This rigid social apartheid included the banning of interracial marriages and often the legalized illegitimacy of children produced from

interracial unions (see Browning, 1951). At the same time, many of these states, in enacting the so-called “Jim Crow” laws of legalized segregation that defined the era, took steps to curtail black political power through a host of racially applied devices, such as grandfather clauses, literacy tests and poll taxes, along with intimidation and violence. In fact, the sustained and vehement adherence of certain states and locales to black disenfranchisement up through the latter half of the 20<sup>th</sup> century would eventually require a federally mandated corrective in the form of the Voting Rights Act of 1965, as well as clearance by federal monitors of any changes to voting procedures. It should be noted that the so-called “pre-clearance” requirement for any changes in voting procedure for states and locales identified as some of the worst offenders in 1965 remains in place as of this writing (2012), although the U.S. Supreme Court is now preparing to hear challenges to this rule.

Given the theorized relationship between a group’s perceived political power, and how it is socially constructed for the purposes of policy, this attempt by several states to effectively *enforce* the political powerlessness of black populations should be considered important for enabling the social construction of black Americans as undeserving and deviant by policymakers and their constituents to go largely unchallenged over time.

The central theoretical premise of this research project, therefore, is that the legacy effects of a racialized political culture at the federal and state levels, spurring the negative social construction of black Americans over the entire breadth of the “profoundly racist” history and pre-history of the United States, has resulted in a deeply embedded, if not permanent, negative construction of black people in American society. The sentiment is exemplified most dramatically in the past establishment and enforcement of anti-miscegenation laws and other segregation laws in many states. These laws, and the racialized political culture that supported

them, have likely led to the development of policy spaces across the states in which black populations are constructed *a priori* as undeserving. One consequence is that black race has come to be disproportionately associated with welfare mothers, the incarcerated, and other social groups with low political power and constructed as undeserving or deviant, particularly in the eyes of what typically remains majority white policymakers and constituencies (Neubeck, 2001; Peffley and Hurwitz, 2002; Hanson, 2004). These demographic trends in a state's black population, emerging themselves from earlier discriminatory policies, are expected to be most evident in states with a history of enshrining their negative construction of black citizens in anti-miscegenation and other segregation laws. With the official dismantling of the last segregation law, anti-miscegenation, by the Supreme Court's ruling in *Loving v. Virginia* in 1967, the beliefs in white supremacy and black inferiority that engendered such laws in the first place are not expected to have immediately dissipated, but rather to have retained a historically and culturally-bound inertia that has continued to influence policy and outcomes in a range of social and political spheres over time. Consequently, the overt racial discrimination of the pre-1967 social milieu in the United States is likely to have given way to more subtle, racially coded constructions of various groups as deviant in which blacks Americans are disproportionately represented, among them welfare mothers. Importantly for this research project, this racialized and negative construction of welfare mothers as a deviant and undeserving group is expected to have implications for policies and outcomes regarding maternal and child health, most notably in those states where implicit concerns with white racial supremacy and purity (and its correlate, black racial inferiority and taint) led to the passing and enforcement of anti-miscegenation and other segregation laws.

## Chapter 4

### **Racial Extension of Social Construction of Target Groups, Hypotheses, Data and Methods**

#### *Introduction*

This chapter begins by addressing a shortcoming in social construction theory discussed in Chapter 3. Following this addition, the chapter highlights conceptual and operational hypotheses that guide the empirical analysis in Chapter 5. The chapter concludes with an introduction to the data utilized and the methods employed.

#### *Racial Extension of Social Construction of Target Groups*

In a brief follow-up to the previous chapter, I offer an extension of the theory of the social construction of target groups proposed by Ingram et al. (2007). This extension integrates the long history of anti-black racism in the United States with public policymaking. This racial component, while specifically addressed in some empirical applications (Benson-Smith, 2005; Schram, 2005) and implied in others (Soss, 1999), is not included in Ingram et al.'s original propositions for this theoretical framework. Accordingly, I suggest the following corollaries.

Corollary 2a: Policy outcomes are at least in part a function of policy design. Because public policies incorporate social construction, black Americans, in particular, can be expected to experience worse outcomes than groups that are viewed more favorably.

Corollary 3a: Policy conditions and restrictions toward individuals are directly related to the extent to which black Americans are perceived to be the main or a major clientele. Moreover, these policies are more frequently scrutinized in the political arena than policies that mainly serve white citizens.

Corollary 6a: Current policies and policy outcomes are a function of past policy designs.

Past policy designs incorporate the social construction of race at the time they are enacted. In this case, a history of state segregation laws can explain later differences in policies and outcomes pertaining to black Americans.

With the addition of these corollaries, I suggest that, as with political culture, social construction theory would benefit from an explicit acknowledgement of race, particularly in the American context.

### **Conceptual and Operational Hypotheses**

The conceptual hypotheses that underpin the current research project are straightforward:

*1. Important political factors with seemingly no direct connection to health, such as partisanship and political culture, are associated with state variation in infant mortality rates.*



*2. Profoundly racist policies of the recent past, though legally dismantled, take a continuing toll on the health of Americans, most notably that of black Americans.*

*3. Political and policy action have the potential to reduce the relatively high U.S. infant mortality rate.*

Taking the modified version of the social construction of target groups, together with what could be termed “conventional” and “racialized” political culture in the states, as the twin theoretical lenses for analysis, a number of operational hypotheses can be derived.

*Conventional Political Culture: Governor Partisanship and Voting in Presidential Elections*

Several Southern states have demonstrated voting records in U.S. general elections clearly driven by concerns over the maintenance of racial segregation (e.g., Thurmond in 1948, Wallace in 1968) and other socially conservative issues during the 20<sup>th</sup> century. Since 1980, this ideological bloc has been incorporated virtually wholesale into the Republican Party (Abramowitz and Saunders, 1998; Hutchings and Valentino, 2004). Consequently, one might expect black infant mortality to be negatively impacted by a socially conservative and racially tinged climate that may continue to permeate political decision-making in much of the South. The assumption here is that political indifference or hostility to the needs of negatively constructed black citizens, founded in a longstanding and historically recent anti-black racial animus, is embedded in the culture of many Southern states. This racial animus, which includes

powerful associations of blacks with social welfare programs, would presumably combine with the Republican Party's rhetorical commitment to cutting social welfare spending. Where this occurs, the likely outcome would be reductions in social spending perceived primarily to benefit black populations.

If poor black women, through the intersection of race, gender and class, are accorded the lowest social status in the underlying racial order in such states, one could expect these spending reductions to include public health initiatives designed to reduce black infant mortality. This seems especially plausible given the concerns of race purity and beliefs in black inferiority implicit in the Jim Crow laws that the Old South was last to grudgingly dismantle. To the extent that improvements in general infant mortality are linked to public spending to reduce poverty and other socioeconomic impacts on maternal health, we should anticipate worse infant mortality outcomes under Republican leadership wherever attempts are made to translate that party's ideology of fiscal conservatism into public policy. These assumptions of the positive impact of liberal (mainly Democratic) and negative impact of conservative (mainly Republican) governorships,<sup>31</sup> similar to those suggested by Bird and Bauman (1995), yield the following hypotheses:

*H<sub>1</sub>: Relative to when Democratic governors are in office, infant mortality (and especially black infant mortality) is higher when states are under Republican governorships.*

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<sup>31</sup> The use of Democratic or Republican partisanship as proxies for liberal or conservative political ideology may be problematic, as these partisan labels overlook important state and regional effects that result in convergence on certain policy issues (e.g., promotion of environmental conservation, universal healthcare, reductions in welfare spending) between Democratic and Republican politicians at the state level. Furthermore, prior to realignment and incorporation into the Republican Party in the 1980s, "Democrat" remained the party affiliation of many white southerners despite obvious dissonance with the national Democratic Party (Hutchings and Valentino, 2004).

*H<sub>2</sub>: Infant mortality is higher in states that tend to vote for conservative candidates in presidential elections.*

### *Racialized Political Culture: Segregation Laws*

In his examination of legally enforced segregation in 1950, Konvitz (1951) finds a range of laws in place across most states designed to restrict or outlaw social contact between black and white Americans. These legal constraints went well beyond anti-miscegenation laws prohibiting the marriage of blacks (and other nonwhites) and whites, which in 1950 still existed in 29 states. Where enacted, they encompassed state and local ordinances mandating separate seating on public transportation, racially segregated educational and incarceration facilities, and even the banning of mixed boxing bouts. Anti-miscegenation laws, of course, remained legally enforceable until 1967, when the Supreme Court's landmark decision in *Loving v. Virginia* finally ruled such laws unconstitutional. Even at the time of the court's decision in the latter half of the 20<sup>th</sup> century, laws banning the marriage of whites and blacks were enforced in no less than 17 states. The most stringent of these laws, as drafted in states like Georgia, Florida, Arizona, Nebraska and Louisiana, went so far as to view any children produced from black-white unions as illegitimate (see Browning, 1951).

Outside of the relatively recent race and ethnicity literature in American politics, the extreme anti-black affect (to use the term coined by Kinder and Sears, 1981) and unequivocally negative social construction of blacks evidenced in such laws is rarely acknowledged as a critical element of American political culture. Yet states often resorted to extensive legal and monetary lengths to achieve racial separation (e.g., separate schools for the blind, separate water fountains,

bathrooms, parks and other public facilities). Coupled with the duration of such laws (the first anti-miscegenation laws appeared in the 17<sup>th</sup> century in Virginia) and the late date at which the last and most persistent of these was legally dismantled suggests that, as path dependent processes, their lingering legacy effects should continue to be felt in policymaking today. For states with the worst records in legal segregation, this racialized political culture might manifest itself in opposition or cuts to policies and programs perceived as beneficial largely to black Americans, especially if seen to facilitate black maternity and childbearing. The following hypotheses can thus be advanced:

*H<sub>3</sub>: Black infant mortality is worse in states where the characteristics of any segregation laws were more extreme in terms of number of laws, duration, degree of specific racial targeting of blacks, and possible jail time for violation.*

#### *Racialized Political Culture: Preclearance*

Due to a history of discriminatory voting laws and practices primarily targeting black Americans, certain states are required to have any changes to their voting practices cleared under Section 5 of the Voting Rights Act (VRA) of 1965. In this research, the need for preclearance is viewed as another proxy for racialized political culture, since attempts to curb the electoral participation of black citizens imply a deep-seated disdain for their social and political equality. A history of attempts to diminish the political voice of black citizens could, in turn, represent an undercurrent of anti-black affect. This sentiment, in turn, could undermine political action to

address social issues that disproportionately impact black citizens, including infant mortality. Accordingly,

*H<sub>4</sub>: States that require preclearance for election-related changes under Section 5 of the VRA of 1965 have worse outcomes for black infant mortality.*

*Typologies of Political Culture – Elazar (1966), Hero and Tolbert (1996)*

As a measure of conventional (i.e., ostensibly non-racialized) political culture, this research includes a truncated version of the typology of political culture in the states first detailed by Elazar (1966). According to Elazar, U.S. states fall into one of the following categories – moralistic, individualistic, traditionalistic, or a combination thereof (e.g., MI, TI, IT, IM, TM), in which the first category named is dominant. Moralistic state cultures emphasize “the commonwealth conception as the basis for democratic government” with “[g]ood government ... determined by the extent to which it promotes the public good” (90). Individualistic state cultures conceptualize “the democratic order as a marketplace... emphasiz[ing] the centrality of private concerns” and placing “a premium on limiting community intervention... into private activities” (86). Traditionalistic state cultures, meanwhile, “are rooted in an ambivalent attitude toward the marketplace coupled with a paternalistic and elitist conception of the commonwealth” in which “social and family ties are paramount” and “those who do not have a definite role to play in politics are not expected to be even minimally active as citizens” (92-93). This typology of political culture, as well as adaptations of it by other scholars, has been shown in various studies to have a statistically significant impact on a host of political choices and outcomes in the

states. Affect areas range from social welfare spending, party competition, and use of corporal punishment in schools, to economic policy and corruption (see Sharkansky, 1969; Johnson, 1976; Welch and Peters, 1980; Hanson, 1991, others). Yet despite its acknowledged effects on political behavior and attitudes, political culture as formulated by Elazar has appeared in few, if any, previous studies of the political determinants of health outcomes, including infant mortality. The following is thus hypothesized:

*H<sub>5</sub>: Moralistic states should have the best outcomes in black and white infant mortality, with infant mortality expected to deteriorate in individualistic state cultures, presumably reflecting the relatively hands-off approach to governance and emphasis on private market concerns. Similarly, traditionalistic states, encompassing most of the former slave states, should have poor outcomes, reflecting social conservatism and anti-black affect.*

Among those who offer an alternative to Elazar's typology of state political culture are Hero and Tolbert (1996), who contend that "much of state politics and policy is a product of racial/ethnic diversity and that [Elazar's] political culture conceptualization masks and may even be a surrogate for state racial/ethnic diversity" (853). In their typology, based on 1980 Census data, states are categorized as either *homogenous* (ex. Maine, Vermont, Utah) – consisting almost exclusively of non-ethnic whites with few minorities, *heterogeneous* (ex. Rhode Island, Massachusetts, New York) – comprised of significant white ethnic populations and minorities, and *bifurcated* (ex. New Mexico, South Carolina, Texas) – referring to states with a substantial minority population (usually black or Hispanic) and large, non-ethnic white population.

Importantly for the current research project, Hero and Tolbert find that homogenous states are associated with higher black infant mortality relative to total infant mortality, with greater minority diversity correlated with lower rates (Hero and Tolbert, 1996).

*H<sub>6</sub>: States with more racial and ethnic diversity have lower black infant mortality rates.*

*Policy: Public Funding of Abortion*

This research includes for analysis a measure of the restrictiveness of a state's public funding of abortions, since previous studies have found a higher abortion rate to be associated with lower infant mortality (McFarlane and Meier, 2001; Grossman and Jacobowitz, 1981). The measure used is the degree to which a state provides public funding for all medically necessary abortions, with states either providing such funding for nearly all abortions or restricting funding only to abortions required to protect the life of the mother or cases of rape or incest. The hypothesis that follows, then is that

*H<sub>7</sub>: States with more restricted funding of abortion have worse outcomes for both black and white infant mortality.*

*Racially Coded Policymaking – Medicaid, PRWORA and Tough on Crime Policies*

In the post-segregation era, the use of racially coded language in the political sphere and policy is well documented (Edsall and Edsall 1991; Jamieson 1992; Mendelberg 2001; Hutchings and Valentino, 2004). Consequently, racial concerns can be assumed as embedded in a range of subsequent policies in the United States. One of the capstone policies of President Johnson's War on Poverty, Medicaid, the means-tested health insurance program for the indigent, is ostensibly universal, with whites, blacks and Hispanics accounting for 43%, 22% and 28% of Medicaid beneficiaries, respectively (Kaiser Family Foundation, 2011). Nevertheless, it is possible that the decision by states to initially participate in the federally led program, which essentially matches state spending on health for the poor, may have suffered from socially conservative decision-making rooted in the association between poverty and black race in many states. In such cases, the result would likely be lower spending by states during the initial decades of the program before becoming the "middle-class entitlement" that it came to be perceived as with respect to long-term nursing care (Quadagno, 1991; Wiener and Stevenson, 1998). At the same time, prior research suggests that Medicaid and other programs for the indigent, such as Women, Infants and Children (WIC) have a beneficial impact on infant mortality rates (Currie, Gruber, and Fischer, 1994; Moss and Carver, 1998), especially for whites (Copeland and Meier, 1987). Consequently,

*H<sub>8</sub>: Infant mortality rates decline sharply with the introduction of Medicaid, with black infant mortality experiencing the most dramatic decline. However;*



*H<sub>9</sub>: Medicaid payments per enrollee are lower in states with more extensive histories of segregation prior to the 1990s.*

*H<sub>10</sub>: Infant mortality rates, particularly the black IMR, are higher in states with lower Medicaid spending.*

*H<sub>11</sub>: Higher Medicaid income eligibility for pregnant women should result in lower infant mortality rates and a smaller racial gap.*

Although explicit racial appeals are typically not found in policymaking in the post-segregation era, there is evidence that an ostensibly nonracial policy sphere - crime and punishment - has become a racially coded policy arena for some policymakers and many members of the public (King and Wheelock, 2007; Peffley and Hurwitz, 2002). Schneider (2006), meanwhile, has documented a sharp and continued rise in incarceration rates in the United States from the late 1960s – a period that coincides with extreme turmoil for the longstanding racial order in the country. Specifically, the late 1960s saw race riots in major cities, including those triggered by the assassination of Martin Luther King, Jr. and other civil rights advocates, the end of anti-miscegenation laws and legalized segregation, and the rise of more vocal advocates for black rights, such as Malcolm X and the Black Panther Party. Wary of these momentous changes, it is plausible that white policymakers in many states, deprived of the legal tools of segregation, may have shifted to more subtle, but no less effective, ways of imposing racial order through legal means. The subsequent increase in incarceration, as

discussed earlier, would have a more pronounced negative impact on black ex-offenders and their communities, due to drastically reduced opportunities for social and economic mobility vis-à-vis white ex-offenders (Pager and Western, 2006). This reduced economic capacity, in turn, may result in a larger gap between blacks and whites around infant mortality and other health outcomes. This may reflect the way in which disproportionate black incarceration and felony disenfranchisement disrupt the wellbeing of entire communities.

*H<sub>12</sub>: Black infant mortality is higher in states with higher incarceration rates and percentage of the black population disenfranchised.*

*H<sub>13</sub>: Infant mortality rates increase with more severe disenfranchisement laws in a state.*

*H<sub>14</sub>: The rise in incarceration rates, as an external stressor and proxy for disadvantage, is associated with growth in the gap in black-white infant mortality rates.*

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act, or PRWORA, was billed as the “end of welfare” as it had come to be known in the United States by then President Bill Clinton, who signed the bill into law. In light of the long, deliberate and negative association of black mothers with welfare in the United States, there can be little doubt that racial concerns were important to the bill’s formulation and passage (Neubeck and Cazenave, 2001; Hancock, 2004), as well as to the stringent approach that many states took to

imposing time limits for welfare benefits and other areas of jurisdiction (Macarthy, 2006). For many mothers on public assistance, the result of harsher welfare policies is likely to be greater anxiety, fewer resources, and, consequently, poorer health for themselves and their children. Ironically, it is white infants who may be most negatively affected by this change, since it is the white infant mortality rate that seems to benefit most from WIC, Medicaid and other welfare policies (Copeland and Meir, 1987). Accordingly, the following hypotheses are forwarded.

*H<sub>15</sub>: Infant mortality rates increase in the years immediately following the passage of PRWORA.*

*H<sub>16</sub>: The black-white gap in infant mortality rates decreases following the passage of PRWORA.*

#### *Infant Mortality and Aid to (Families with) Dependent Children*

An additional model that will be tested in the empirical analysis is whether infant mortality rates and the other variables mentioned can predict state-to-state variation in Aid to Families with Dependent Children (AFDC), providing a policy vector for how political culture can translate into worse health outcomes. This federal “matching” grant program authorized by the Social Security Act of 1935 “enabled states to provide cash welfare payments for needy children who had been deprived of parental support or care because their father or mother was absent from the home, incapacitated, deceased, or unemployed.”<sup>32</sup> Like other assistance programs perceived as largely associated with black Americans (particularly single black

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<sup>32</sup> An overview of ADC/AFDC is available on the U.S. Department of Health and Human Services website (<http://aspe.hhs.gov/>).

mothers), AFDC faced constant political scrutiny and attacks through the 1980s. The culmination of this perception came in President Reagan's notorious coining of the term "welfare queen" to describe the prototypical (and racially black) female welfare recipient. The program was ended as an entitlement in 1996 by PRWORA, when it was renamed Temporary Aid to Needy Families (TANF) and had five-year lifetime assistance limits and other restrictions imposed. The following hypotheses are thus forwarded:

*H<sub>17</sub>: High infant mortality rates, as a proxy for need, are associated with higher AFDC payments. However,*

*H<sub>18</sub>: Consistent with the assumptions of Corollary 3a, from the 1960s, higher than average black population size is associated with lower AFDC payments.*

*H<sub>19</sub>: Consistent with Corollary 6a, AFDC payments will be lower in states that had more numerous or more punitive segregation laws.*

*H<sub>20</sub>: The more conservative a state, the lower the AFDC payments.*

*H<sub>21</sub>: Republican governors, reflecting the party's rhetorical opposition to public assistance and other social program, should be associated with lower AFDC payments.*

## **Data and Methods**

### *Research Design*

The primary focus of the empirical analysis in the following two chapters is an examination of the variation in state, white and black infant mortality rates, and the black-white racial gap between the rates, over time. These measures serve as the dependent variables of the various models examined. Another key element of the analysis is determining the potential impact that political factors, including policies and state political culture, may have in determining state-level variation in infant mortality rates and the racial gap. These variables, as well as several demographic measures such as size of the black population, serve as the predictor variables for the analysis. Variation is examined separately for each of the infant mortality rates (state, white and black) and the racial gap using factors from the literature on infant mortality (state racial demographics, female educational attainment, per capita income) and political factors.

Data sources for many of the key variables used in this research are highlighted below. Refer to the Appendix for a complete list of variables and sources.

Data on black and white<sup>33</sup> infant mortality rates (IMR) for the 59-year period from 1950 to 2008 used in this study were collected from the annual *National Vital Statistics of the United States* (for 1950 to 1993), and generated using CDC WONDER, an online database for public health statistics and information operated by the U.S. Centers for Disease Control and Prevention (<http://wonder.cdc.gov/>), for the years 1995 to 2005. Data for 2006 to 2008 were derived from *National Vital Statistics Reports* on infant mortality in the United States for the respective years. Data on infant mortality rates for 1994, which are missing from publication, were interpolated based on prior- and post-year data. Wherever necessary, missing data throughout the dataset have been similarly derived.<sup>34</sup>

Figures for Medicaid payments per enrollee by state of residence (in current dollars) were collected from the Henry J. Kaiser Family Foundation website “statehealthfacts.org” for the period of 1991 to 2008.<sup>35</sup> Data to lack of availability, Medicaid payment data was extrapolated for years prior to 1991 (back to 1965).

Data for per capita income and state GDP (both in current dollars) were available online from the Bureau for Economic Analysis, U.S. Department of Commerce ([www.bea.gov](http://www.bea.gov)). Information on state abortion rates from 1973 to 2005 and on the public funding of abortions in the states was from data published by the Guttmacher Institute ([www.guttmacher.org](http://www.guttmacher.org)). Missing data on abortion rates to 2008 were extrapolated.

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<sup>33</sup> Data from the 1990s are for non-Hispanic black and white infant mortality. No ethnic distinction is available for earlier years. Also, infant mortality data prior to the 1980s are based on the race of the infant; later data are based on the race of the mother.

<sup>34</sup> Interpolation and extrapolation are statistical techniques for deriving missing data when other key data are known. Interpolation is generally used to fill in between available data points (ex. Estimate “B” when “A” and “C” are known). Extrapolation is typically used to estimate missing data prior to or after the last known data point (ex. Estimate “A” or “D” when “B” and “C” are known). These estimates are calculated in a linear manner, which could result in inaccuracies when attempting to estimate non-linear data. Calculations were performed using STATA 10.1 software.

<sup>35</sup> Available at the following URL: <http://www.statehealthfacts.org/comparemaptable.jsp?ind=624&cat=6>

Educational attainment rates for black and white women (e.g., a high school diploma or more attained, or a bachelor's degree or more attained) by state were obtained from "A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000," available online from the U.S. Census Bureau ([www.census.gov](http://www.census.gov)). Data for missing years between census periods were interpolated and/or extrapolated. The Census Bureau was also the source for the percent Black/African American of the population by state.

For measures of racialized political culture, data pertaining to state preclearance requirements under the Voting Rights Act of 1965 were obtained from the Civil Rights Division of the U.S. Department of Justice (<http://www.justice.gov>). Data on the date of enactment, repeal and duration of anti-miscegenation laws gathered from LovingDay.org.

Data for the black-white disparity in imprisonment and the percentage of the black population of a state living under felony disenfranchisement are from the Sentencing Project (<http://www.sentencingproject.org/>). The severity of felony disenfranchisement by state is from the Brennan Center for Justice (<http://www.brennancenter.org>). State incarceration rates are from the Bureau of Justice Statistics (<http://bjs.ojp.usdoj.gov/>).

Biannual data on cash payments per household for Aid to Families with Dependent Children (AFDC) for 1950 to 1983 by state was collected from *The Book of the States* (vols. 10-24). Figures for missing years were interpolated from actual data. Data for 1978 to 1996 gathered from the U.S. Department of Health and Human Services (<http://aspe.hhs.gov/hsp/afdc/baseline/4spending.pdf>). Figures converted to 2008 dollars and rendered as per capita.

## *Methods*

Due to the time series nature of this research (covering the years 1950 to 2008), the primary statistical methodology employed for this study was cross-sectional time-series regression. A total of four time-series models are developed. The first model predicts variation in the separate infant mortality rates and the racial gap using independent variables considered to have a more or less direct impact on infant mortality (e.g., state spending on maternal and child health). The intent with this model is to control for factors typically highlighted in the literature as impacting infant mortality (e.g., abortion rates, per capita income) prior to the addition of political factors.

The second model predicts variation in two policies, monthly payments to families under the cash welfare program Aid to Families with Dependent Children (AFDC) and state Medicaid payments per enrollee, incorporating infant mortality rates and measures of political culture, such as number of past segregation laws, as predictors. The goal with this model is to establish what impact political culture may have on policies that impact infant mortality. The third model examines infant mortality rates again, this time adding political culture factors as predictors. Finally, I present a two-stage predictive model of the interaction between the first two models. This model is an attempt to address a criticism levied at earlier iterations of this research project, namely that an intervening factor of some kind (such as a policy) may be needed to better explain how differences in amorphous concepts like political culture might contribute to variation in a seemingly unconnected health outcome.



Prior to these more robust analyses, the relationships between the dependent variables (state, white and black infant mortality rates and the racial gap; AFDC) and a range of independent variables were examined using “difference of means” tests (t-tests). STATA software (version 10.1) was used for statistical and data analysis.

In interpreting results, readers should bear in mind that a negative coefficient is associated with a *reduction* in the infant mortality rate, while positive coefficients are associated with higher (i.e., worse) rates.

## Chapter 5: Empirical Analysis

### Part I: Variables and Difference of Means Tests

#### Introduction

In addition to setting the theoretical stage for empirical analysis, the first three chapters offer a diverse range of variables for operationalization regarding the research questions and hypotheses outlined in Chapter 4. In this opening to the empirical analysis, I offer a closer look at what may be some of the key factors in why infant mortality rates vary and display such a persistent racial gap across time in the United States.

Many of the factors considered in this analysis are attempts to operationalize concepts such as racialized political culture, which has rarely been applied to the question of public health. As such, this analysis is necessarily exploratory in nature. Accordingly, an appropriate entry point into the empirical analysis is “difference of means” tests.<sup>36</sup> These basic tests attempt to answer whether infant mortality rates are significantly different on average in the presence of important variables suggested by the preceding chapters. This will segue into the last part of this empirical chapter—a cross-sectional time series analysis of data on infant mortality rates and the black-white racial gap from 1950 to 2008, and an important policy for child and maternal health—Aid to Families with Dependent Children.

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<sup>36</sup> All difference of means results significant at the  $p > .001$  level unless otherwise noted.

## List of Variables for Analysis

The following charts contain descriptive statistics of the dependent and independent variables for empirical analysis. The independent variables, categorized by type (demographic, political, etc.) will be used to predict variation in infant mortality rates (IMRs) for the state (stimr), white infants (wimr) and black infants (bimr3), as well as the black-white racial gap in these rates (gap3).

Consistent with measures used by the World Health Organization (WHO), Centers for Disease Control and Prevention (CDC), and the Organization for Economic Cooperation and Development (OECD), infant mortality rates (state, black and white) are the annual number of infant deaths per 1,000 live births. The racial gap is the percentage point difference after subtracting the white IMR from the black IMR. The period from 1950 to 2008 yields 2,950 observations for the state, black and white infant mortality rates.

For the black IMR and the racial gap, a reformulated measure with sample size of 2,025 observations will also be considered. This difference reflects the decision to omit observations for states with less than 1,000 live births of black infants, which might otherwise skew the data dramatically in states with small numbers of births of black infants. See the notes at the bottom of the following charts for information regarding the sample and sample size. More specific information on variable operationalization can be found in Appendix I.

**Table 5.1 Descriptive Statistics for Dependent Variables**

Variable	Mean	Std. Deviation	Range	Sample Size
State infant mortality rate (stimr)	15.87406	10.40289	3.82 to 313 <sup>1</sup>	2950
White infant mortality rate (wimr)	13.87039	7.61125	0.6 to 49.8 <sup>1</sup>	2950
Black infant mortality rate <sup>1,2</sup> (bimr)	26.86699	29.64867	0 to 1000	2950
Gap in black-white IMRs (gap)	12.9966	27.08964	-30.8 to 975.5	2950
Black infant mortality rate <sup>1</sup> (bimr3)	25.78076	12.31788	1.9 to 76.1	2025
Gap in black-white IMRs <sup>1</sup> (gap3)	12.30311	6.031867	-8 to 40.9	2025

1. Infant mortality rates are per 1,000 live births by state from 1950 to 2008; gap in black-white IMRs is the percentage point difference after subtracting the white IMR from the black IMR.
2. Data for 1994 interpolated for all states.
3. Includes adjusted (manually calculated from raw data) rates calculated for states with small numbers of black infant live births and deaths based on U.S. Vital Statistics data. Data extrapolated for HI and AK prior to 1960.
4. The variables bimr3 and gap3 are the black IMR and the racial gap excluding observations with less than 1,000 black live births.
5. Terms in parentheses are variable names as used in the dataset.

### *Independent Variables*

Below is a list of the independent variables that will be used in empirical analysis. These factors are described by category (demographic, policy, etc.) in tables below. The demographic variables (see Table 5.2) are as follows. Percent black of the state population from 1950 to 2008 based on U.S. Census data for 1950 to 2010, with data for years between decades interpolated.

State abortion rate is the abortion rate by state from 1973 to 2008, with data for several missing years interpolated. For educational attainment, the percentage of black females aged 25 and older with a college degree or higher is used. Measures for black high school educational attainment and white female educational attainment were excluded due to high correlation between the education variables. The last three demographic variables are related to crime and punishment. The first is the percent of the black population in a state living under felony disenfranchisement as of 2005. The second, also as of 2005, is the black-white disparity in imprisonment, measured as a ratio of white-to-black imprisonment. The last variable is the state incarceration rate from 1977 to 2006. For the analysis in Chapter 6, these three variables, along with the level of disenfranchisement in the states (see policy variables below) will be consolidated into an index called “tough on crime.”

**Table 5.2 Descriptive Statistics for Independent Variables (Demographic)**

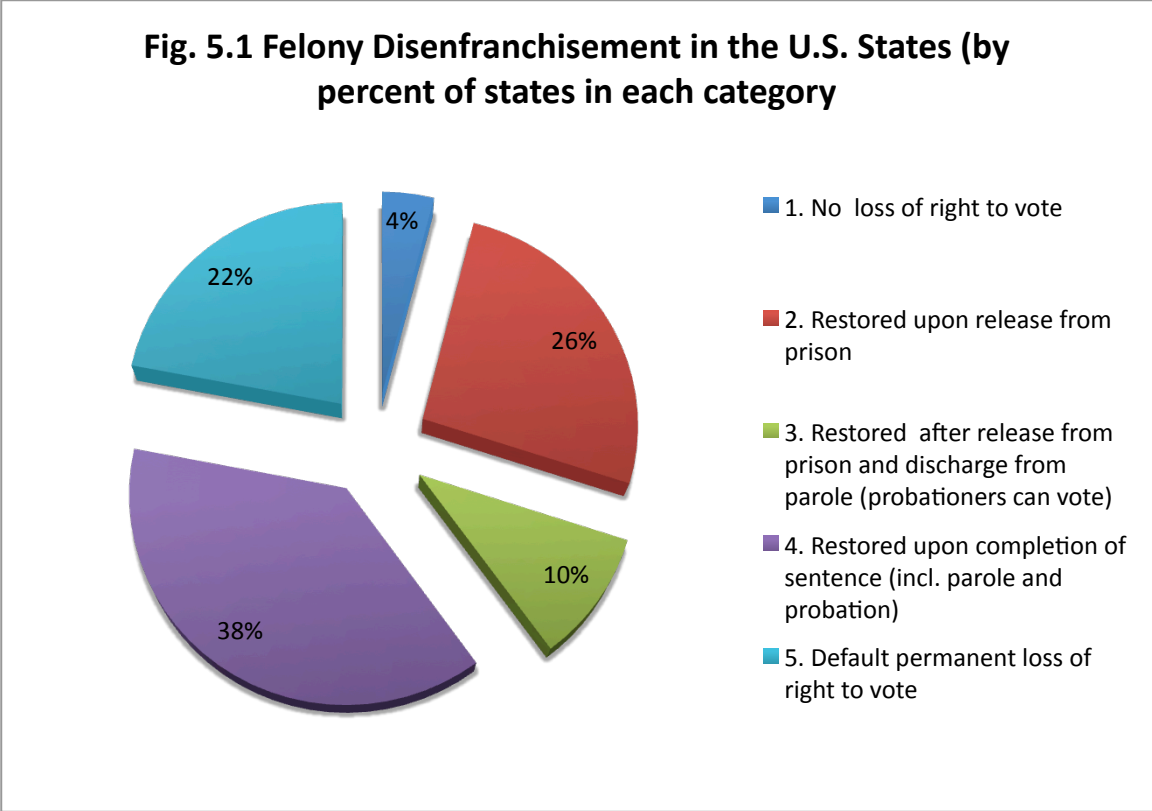
Variable	Mean	Std. Deviation	Range	Sample Size
Percent black of state population (blkpop)	9.485178	9.689925	.1 to 45.3	2920 <sup>1</sup>
State abortion rate (abort)	18.10194	9.433394	0 to 54.5	1800 <sup>2</sup>
Percent of black females with college or better <sup>3</sup> (blkedbs)	9.781866	6.820172	0 to 38.72	2950
Percent of black population disenfranchised (blkfelondis)	9.086	7.368936	0 to 34	2950

Black-white imprisonment ratio (prisondis)	6.629167	2.585748	1.9 to 12.5	2832 <sup>4</sup>
State incarceration rates (incar)	215.6213	155.6094	1 to 865	2485

1. Missing data for HI, AK and ND for 1950 to 1959.
2. Missing data prior to 1973 for all states. Missing data for following years interpolated.
3. Data for 2001 to 2008 and other missing years extrapolated.
4. Missing data for NM and WY, since neither state reports such data.
5. Terms in parentheses are variable names as used in the dataset.

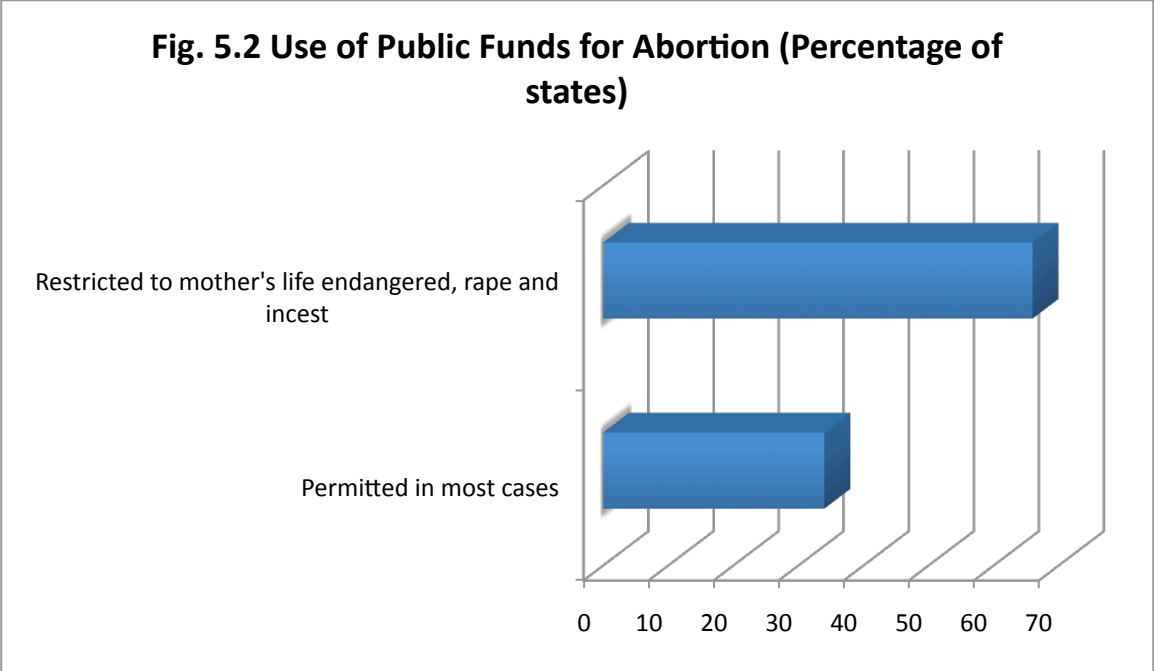
### *Policy Variables*

A total of five policy variables are included for analysis. The first is the severity of felony disenfranchisement in the states. States differ on their denial of the right of ex-felons to vote from no denial of such rights to the most extreme case, complete disenfranchisement without written reinstatement by the governor or other governmental body (see Fig. 5.1).



Based on data from The Sentencing Project, <http://www.sentencingproject.org/template/index.cfm>

The second policy variable is the restrictiveness of the use of public funds (Medicaid, etc.) for abortions. Some 34 percent of states permit the use of such funds for most or all abortions deemed medically necessary (see Fig. 5.2). The vast majority, however, allow the use of such funds only in cases in which the life of the mother is endangered or in cases of rape or incest.



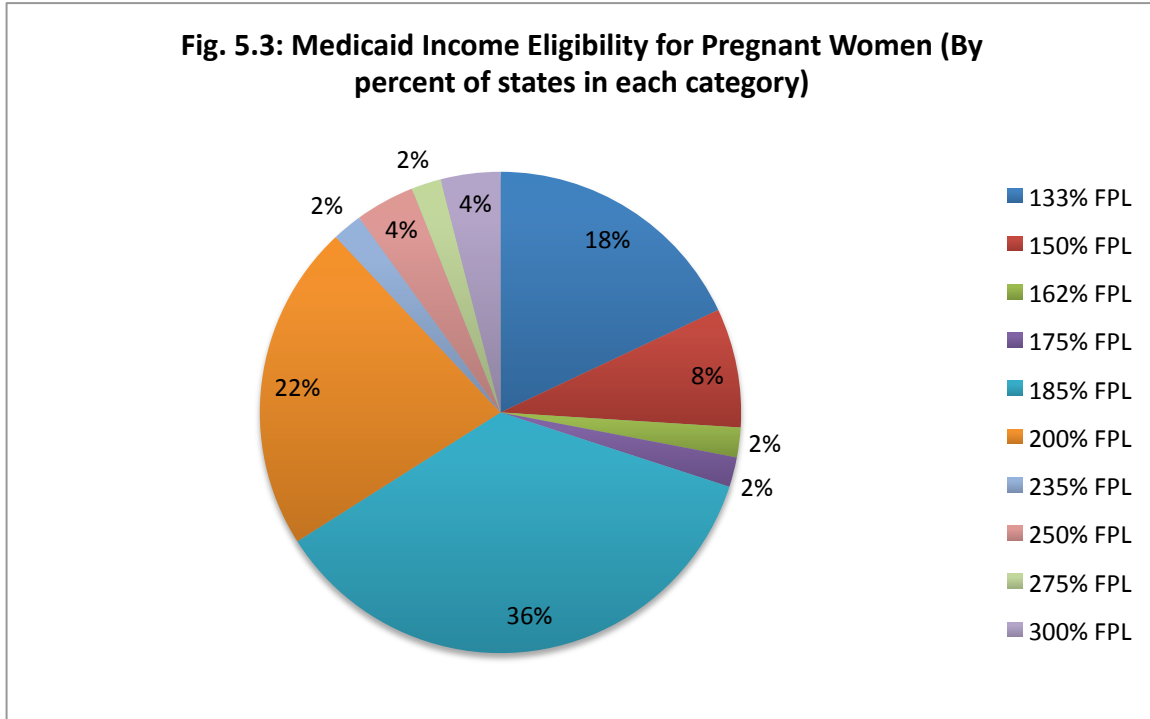
Based on data from the Guttmacher Institute, <http://www.guttmacher.org/>

The third policy variable is income eligibility for qualifying for Medicaid for pregnant women, expressed as a percentage of income above the federal poverty level (FPL). In 2012, states range on this metric from 133% of FPL to 300% of FPL (see Fig. 5.3).

The last two policy variables are Aid to Families with Dependent Children (AFDC) and Medicaid spending per enrollee (see Table 5.3). AFDC is measured as the average monthly payments per family enrolled in AFDC (in 1998 dollars), a cash payment-based public assistance program covered in this data from 1950 to 1996 (when the program became Temporary Assistance to Needy Families (TANF)). Medicaid spending per enrollee is the average spending by states per enrolled Medicaid recipient (in 2008 dollars) from 1970 to 2008 (natural log



used).<sup>37</sup> Data prior to 1976 were extrapolated, with data for missing years from 1976 to 1991 interpolated.



Source: statehealthfactsorg, Kaiser Family Foundation (2012)

**Table 5.3 Descriptive Statistics for Independent Variables (Policy)**

Variable	Mean	Std. Deviation	Range	Sample Size
Aid to Dependent Children (adc98, average monthly payments to families)	547.2263	215.4377	116.95 to 1226.70	2339 <sup>1</sup>

<sup>37</sup> Medicaid was authorized in 1965. To allow ample time for states to put funding mechanisms in place, Medicaid data from 1970 will be used for the analysis.

Medicaid payments per enrollee (medic, natural log)	8.002492	1.131852	2.36 to 10.71	1981 <sup>2</sup>
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1. Bi-annual data from 1950 to 1983; annual data from 1993 to 1996, missing years interpolated.
2. Data from 1965 to 2008; data prior to 1976 extrapolated.

### *Institutional Variable – Health Department Governance Type*

In Fig. 5.4, a specific institutional variable, the governance type of local health departments (LHDs) in a state, is used in the analysis. LHDs fall under one of four governance types:

Local = All LHDs in the state are units of local government

State = All LHDs in the state are units of state government

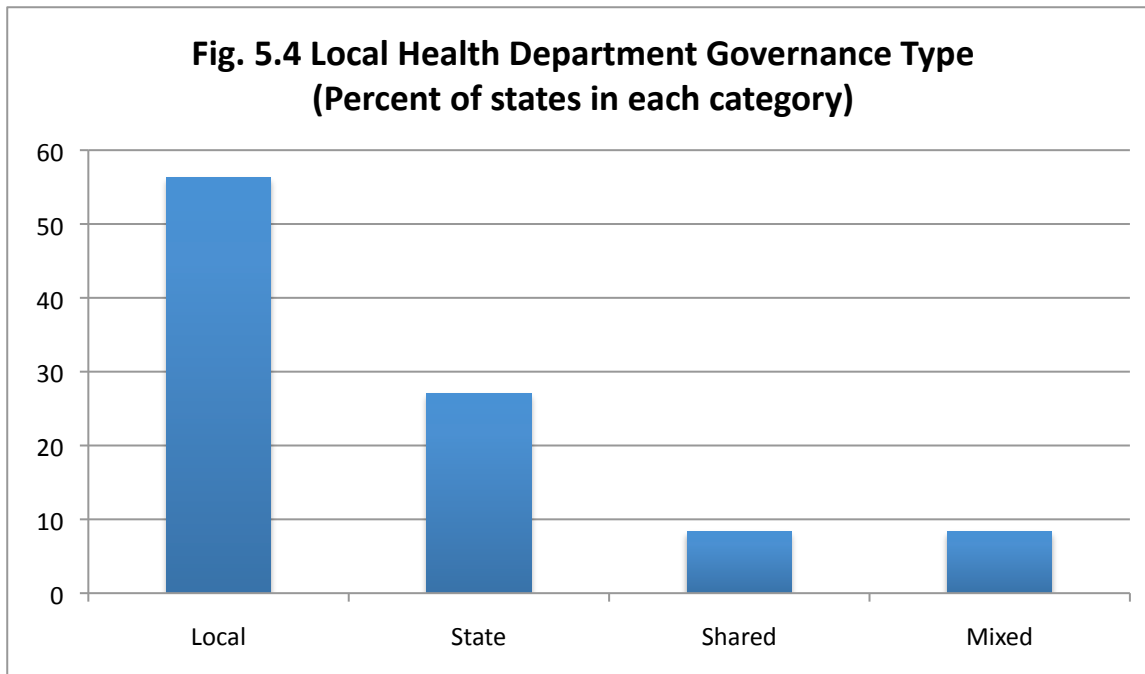
Shared = All LHDs in the state are governed by both state and local authorities

Mixed = LHDs in state have more than one governance type.<sup>38</sup>

While it is plausible that health department governance type may have changed over time, the current governance type (as of 2010) will be applied in a fixed manner to the states.

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<sup>38</sup> Description of LHD types is from p. 11 of *2010 National Profile of Local Health Departments* published by the National Association of County & City Health Officials (NACCHO). Available at [http://www.naccho.org/topics/infrastructure/profile/resources/2010report/upload/2010\\_Profile\\_main\\_report-web.pdf](http://www.naccho.org/topics/infrastructure/profile/resources/2010report/upload/2010_Profile_main_report-web.pdf). Accessed October 25, 2012.



Data: National Association of County & City Health Officials, 2010

Note: Governance type not reported by HI or RI.

### *Conventional Political Culture*

Several measures of political culture are included in the analysis. These have been divided broadly into two categories *conventional* (i.e., ostensibly racial neutral in character) and *racialized* (race, typically black race, is a specific element of the political culture measure). In Table 5.4, two of the conventional measures used are the party ID of the state’s governor (either Democrat or Republican), state political culture as proposed by Elazar (1966). States are described as moralistic, traditionalistic or individualistic (see Chapter 4 for a more complete description of these types). The third measure, state conservatism, counts the number of times that a state voted for the more conservative candidate in the 15 presidential elections from 1952 to 2008.

**Table 5.4 Descriptive Statistics for Independent Variables (Conventional Political Culture)**

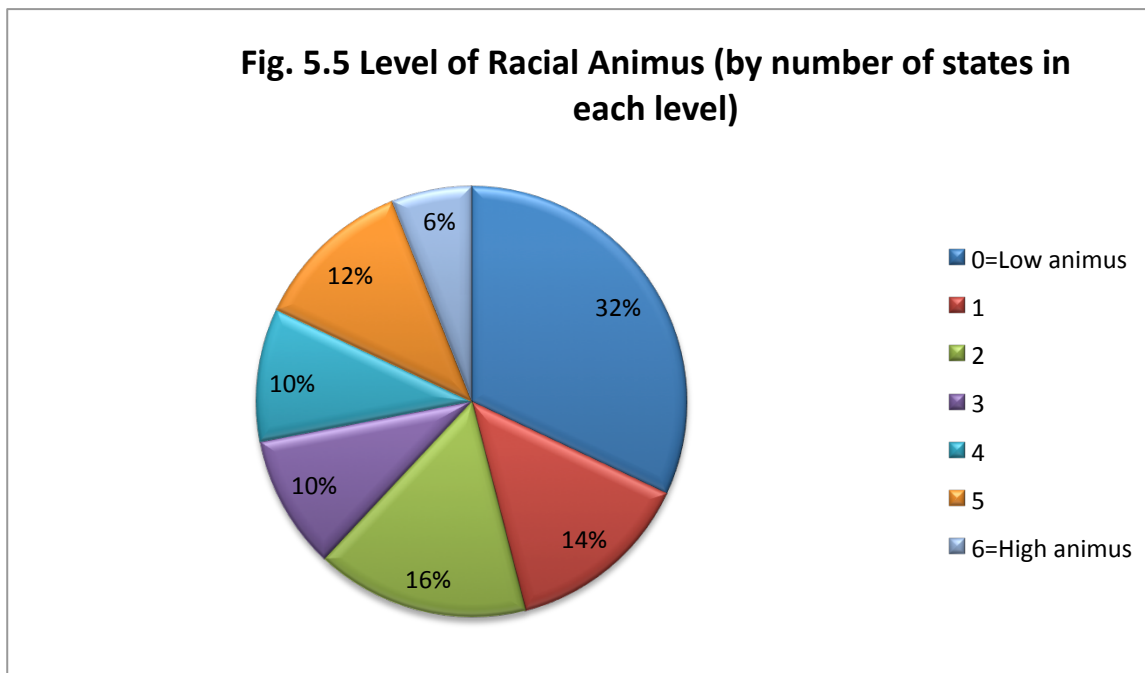
Variable	Frequency	Percent	Range	Sample Size
Party ID of governor (guvid)	1. 1,618	55.18	1-2	2932 <sup>1</sup>
	2. 1,314	44.82		
<b>1. Democrats</b>				
<b>2. Republicans</b>				
State political culture proposed by Elazar (1966)	1. 1,062	36	1-3	2950
	2. 944	32		
	3. 944	32		
<b>1. Moralistic</b>				
<b>2. Individualistic</b>				
<b>3. Traditionalistic</b>				

1. Data missing for HI and AK prior to statehood in 1959; independent governors in ME and in CT (1 individual each) coded as Democratic (1) and Republican (2), respectively.

Variable	Mean	Std. Deviation	Range	Sample Size
Conservatism measure (conserva1)	8.162	2.873534	2 to 13	2950
<b>Votes for a conservative candidate for President in elections from 1952-2008</b>				

The racialized political culture measures include Hero and Tolbert’s (1996) measure of state political culture developed as an alternative to Elazar’s state culture typology. State culture is coded as white (ethno-racially homogenous), bifurcated (largely mono-ethnic white with one other large minority group) and diverse (multiple white and nonwhite racial-ethnic groups). The remaining variables pertain to the segregationist past in the states as proxies for their racially charged political culture. These measures include whether a state has preclearance requirements

for counties or the entire state under the Voting Rights Act of 1965, the total number of different types of segregation laws present in a state in 1950, the duration of any anti-miscegenation (AM) laws, and several measures detailing how anti-miscegenation laws in a state were designed. These three measures were whether blacks were the first nonwhite group mentioned in any such laws, whether children from interracial unions were considered legitimate or illegitimate, and the legal penalty (in possible jail time) for violating such laws. With the exception of the Hero and Tolbert measure, for the later analysis in Chapter 6, the extreme values of each of these racialized measures are consolidated into a single variable measuring the degree of high racial hostility (animus) considered embedded in state culture due to a past history of racial segregation (see Fig. 5.5 below).



Racial animus: Index of anti-black racial hostility from 1 to 6, where states receive one point each if a) a state has preclearance requirements for 10 counties or the entire state under the Voting Rights Act of 1965, b) had a total of 3 or more different types of segregation laws in 1950, c) had anti-miscegenation (AM) laws lasting more than 50 years, d) blacks were the first nonwhite group mentioned in any such laws, e) children from interracial unions were

considered illegitimate under AM laws, and f) the legal penalty (in possible jail time) for violating such laws was 3 years or more.

### *Economic Variables*

The final category of independent variables (Table 5.5) is two economic measures – state GDP and state per capita income. Both figures are in 2011 dollars. For state GDP, the natural log is used.

**Table 5.5 Descriptive Statistics for Independent Variables (Economic)**

Variable	Mean	Std. Deviation	Range	Sample Size
<b>State GDP</b>	82647.88	161231	0 to 1911741	2950 <sup>1</sup>
<b>State per capita income</b>	12934.15	11720.64	764 to 56904	2950

1. Data prior to 1963 extrapolated from 1963 to 2008 data.

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### **Difference of Means Tests**

The section that follows is a preliminary analysis of the relationship between the independent variables highlighted above, the infant mortality rates and the racial gap in rates. To establish the possible significance of the independent variables prior to the more detailed analysis in Chapter 6, difference of means tests will be used to assess whether the mean infant

mortality rate and gap across the entire dataset (1950 to 2008) differ in the presence of the factors presented.

### *Brief Note on Black Infant Mortality Rate Data*

Before the preliminary analysis, a brief note on data pertaining to the black infant mortality rate is in order. In contrast to readily accessible data on state and white infant mortality rates, comparable data for black infant mortality is marked by inconsistent availability. The problem mainly stems from a persistently small number of live births of black infants/infants born to black mothers in several states over the 59-year timeframe of this research. Wyoming, for example, had 58 live births of black infants in 2008, identical to the number born in 1950. Vermont, meanwhile, has seen that number grow from 3 in 1950 to just 97 over the same period. For the purposes of this project (i.e., a state-level analysis of political determinants of variation in infant mortality rates), the author initially calculated what in this research is termed “adjusted” infant mortality rates for these and other states with similarly low numbers of live births, based on the actual number of live births and deaths of black infants reported in the Vital Statistics of the United States.

The decision to take this step reflected the overarching purpose of this research—to examine the role of segregation laws and other political factors in shaping present-day outcomes. Several states that historically have had black populations of negligible size, and subsequently few black infant births, nonetheless enacted anti-miscegenation laws (Wyoming, North Dakota, South Dakota, Nebraska, Utah and Montana all fit this description), implying an anti-black racial animus in the political culture of these states that warrants closer scrutiny. However, because

infant mortality rates are per 1,000 live births, there is concern that the extraordinarily high and artificial number of deaths that often result (e.g., adjusted rates of 500 in the case of 2 births and 1 death) may seriously bias test results.

With this in mind, in the following difference of means tests, the black infant mortality rate and the racial gap data will be limited to state-years with 1,000 or more live births of black infants.

### *Demographic Factors*<sup>39</sup>

The first relationships examined are several demographic variables: size of the black population in a state, black female college educational attainment, abortion rates, and whether a state is considered “tough on crime.” Given the high black infant mortality rate, generally nearly twice the rate for infants born to white mothers, a larger black population should be associated with a higher state infant mortality rate (IMR) and higher black infant mortality. As for educational attainment and abortion rates, Grossman and Jacobowitz (1981) find poorer, less educated black women experience less infant mortality than their wealthier, better-educated counterparts. They also note that higher state abortion rates are associated with lower infant mortality, presumably due to fewer unwanted pregnancies.

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<sup>39</sup> Several demographic factors do not cover the entire period of the infant mortality data (1950 to 2008). Specifically, black population data have been interpolated from decennial U.S. Census data; data on abortion rates begin from 1973, with data for several missing intervening years to 2008 interpolated. Female educational attainment data have similarly been interpolated and extrapolated based on decennial U.S. Census data. Data for percentage of the black population under disenfranchisement and the black-white prison disparity, meanwhile, reflect 2005 data.



As anticipated, the mean state IMR, at 17.12, is higher in states with an above average-sized black population (above about 9.5%) than those where the population is below this threshold (mean state IMR of 15.14). Interestingly, the white IMR is slightly lower in states with a higher than average black population, while the black IMR is not significantly different. The racial gap with a high black population, too, is larger.

Abortion rates offer more surprising results. Means tests suggest that infant mortality rates for the state, as well as the black and white rates and the racial gap, are all roughly twice as high in states with higher-than-average abortion rates.

As for educational attainment, test results are consistent with the consensus of the literature on the relationship between higher education and better health outcomes. Infant mortality rates and the racial gap are all nearly or more than double in size when the percentage of college educational attainment for black females in the states is below the mean (around 9.78%).

Turning to incarceration-related demographics, as mentioned previously, high levels of incarceration have a devastating effect on the economic and social life of black and Hispanic communities (Petitt and Western, 2004). The reach of felony convictions, in particular, extends in many states to the de facto permanent loss of voting rights, depriving even this rudimentary political voice from a growing number of people in depressed and underserved communities. This disenfranchisement then, coupled with other incarceration variables as proxies for “tough on crime” policies known to be racially coded in nature (Edsall and Edsall 1991; Jamieson 1992; Mendelberg 2001; Hutchings and Valentino, 2004), should result in worse black infant mortality

rates, as African American communities are among the most severely impacted by the effects of early and frequent incarceration over the life course.

After the removal of an extreme outlier in terms of the percentage of the black population in a state under felony disenfranchisement (Iowa at 34%, the next closest being Kentucky at 23.7%), state and white infant mortality rates are both higher in states with high black disenfranchisement ( $p > .05$ ). The difference in black infant mortality rates, however, is not statistically significant, nor is the racial gap in the black-white rates. These results tentatively run counter to the expectations of  $H_{12}$ , which predicted higher black infant mortality with high felony disenfranchisement for the black population.

For the black-white disparity in imprisonment, the results of this preliminary test suggest that states with a higher than average disparity appear to have a lower infant mortality rate, as well as a lower white IMR, with the latter significant at an alpha level of  $p > .05$ . Again, neither the black IMR nor the racial gap are statistically different in states with higher versus lower than average black-white disparity in imprisonment. As for the overall incarceration rates, while the state IMR is not significantly different when states have a higher than average incarceration rate, the white and black infant mortality rates are slightly lower, and the racial gap is wider. While  $H_{12}$ , which also predicts a higher black IMR, is again not supported,  $H_{14}$ , which hypothesized a larger racial gap with rising incarceration rates, is tentatively supported. Finally, severe disenfranchisement, equaling de facto permanent loss of the right to vote, is associated with a higher state and white IMR, but is not significant for black infant mortality rates or the racial gap.  $H_{13}$ , which anticipated higher IMRs across the board with more severe disenfranchisement, is thus only partially supported.

**Table 5.6: Significant Demographic Factors in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
Black state population size above average	***	+	***	-
State abortion rate above average	***	+	***	+
College or better attainment above average (black females)	***	-	***	-
Percent of black population disenfranchised above average	*	+	*	+
High black-white imprisonment disparity	***	-	*	-
Above average incarceration rates	NS		***	-
Severe felony disenfranchisement (de facto permanent loss of right to vote)	***	+	**	+

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
Black state population size above average	NS		***	+
State abortion rate above average	***	+	***	+
College or better attainment above average (black females)	***	-	***	-
Percent of black population disenfranchised above average	NS		NS	
High black-white imprisonment disparity	NS		NS	

Above average incarceration rates	***	-	NS
Severe felony disenfranchisement (de facto permanent loss of right to vote)	NS		NS

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

### *Policy Factors*

One of the underlying assumptions driving this research is that policies, past and present, have ongoing and often unanticipated effects (Pierson, 2000, 2004; Ingram et al., 2007). Three present-day policies and two major policy events are thus examined for their impact on infant mortality rates. The two policies are the restrictiveness of public funding (i.e., Medicaid funds) for abortion and Medicaid income eligibility levels in the states for pregnant women. The two events are the introduction of Medicaid in 1965 and the transformation of cash assistance to the needy with the introduction of the Personal Responsibility and Work Reconciliation Act (PRWORA) in 1996.

Infant mortality rates in general may be higher as a result of more unwanted pregnancies in states that restrict the public funding of abortion only to cases in which the life of the mother is endangered (or cases of rape or incest), rather than fund all abortions deemed medically necessary. Finally, Medicaid income eligibility for pregnant women can differ dramatically by state, ranging in January 2012 from 133% of the federal poverty level in states like Virginia and Wyoming, to 300% in the states of Wisconsin and Iowa.

The public funding of abortion and Medicaid income eligibility levels for pregnant women both represent policies that were enacted after 1960. The infant mortality data for the current research project, however, date back to 1950. Moreover, data for Medicaid income eligibility levels for pregnant women are from January 2012. Meanwhile, data on the restrictiveness of public funding (Medicaid funding) of abortion in the states reflects the situation as of 1997, when the Hyde Amendment (federal policy that restricts use of federal funds for abortion outside of cases of rape or incest or endangerment of a mother's life) was last revised (Boonstra, 2007). For the purposes of this analysis, both policies are treated as fixed effects in the states (i.e., unchanged from 1950 to 2008) for the entire span of the infant mortality data. This decision is purely a reflection of data availability at the time of this writing (2012), with only the most recent data readily available. Prior research suggests that there has been some variation (albeit not annual) in both of these policies over time, particularly with respect to Medicaid income eligibility for pregnant women (Joyce and Kaestner, 1996). Outcomes regarding these two policies should thus be viewed as speculative, at best.

In terms of the restrictiveness of public funding of abortion, while state-level infant mortality rates are somewhat higher in the most restricted states ( $p > .05$ ), there is apparently no significant difference in these rates for either white or black infant mortality rates. This is counter to the expectations of  $H_7$ , which predicted higher infant mortality rates across the board and a larger gap with restricted abortion funding. Turning to Medicaid income eligibility for pregnant women, state and black infant mortality rates are significantly different, and lower, in states that offer income eligibility at 275% of the federal poverty level or higher (the highest level is 300%, found in the states of Iowa and Wisconsin). The racial gap is also smaller, providing fairly robust

support for *H<sub>III</sub>*, which predicted higher eligibility would lead to better infant mortality outcomes.

**Table 5.7a Significant Policy Factors in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
Public funding of abortion highly restricted	*	+	NS	
High Medicaid income eligibility for pregnant women	***	-	NS	

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
Public funding of abortion highly restricted	*	+	NS	
High Medicaid income eligibility for pregnant women	***	-	***	-

Turning to tests of two key policy events, the introduction of Medicaid in 1965 and the enactment of PRWORA in 1996, the results are as follows. Infant mortality rates and the racial gap are significantly different in the years following the introduction of Medicaid, with all rates nearly or less than half on average when compared to observations from 1960 to 1965. To further corroborate this association, the annual percent change in the state infant mortality rate was calculated from 1960 to 1965, and again from 1966 to 1971. As the graph in Fig. 5.6 shows, there was a clear decline in the state IMR after 1965 in all but two states—South Dakota and Wyoming. This decline remained evident after the removal of the year 1967, which saw a dramatic drop in infant mortality rates followed by an equally dramatic increase in most states

the following year (negative change denotes a decline in infant mortality). The difference in the pre- and post-1965 black IMR (13.87) is also much greater than for the white IMR (9.78), offering strong tentative support for  $H_8$ , which predicted both a significant decline in the rates and a greater black over white gain after the introduction of Medicaid.

**Table 5.7b Significant Policy Events in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
<b>Post-1965 (introduction of Medicaid)</b>	***	-	***	-
<b>Post-1996 (enactment of PRWORA)</b>	***	-	***	+

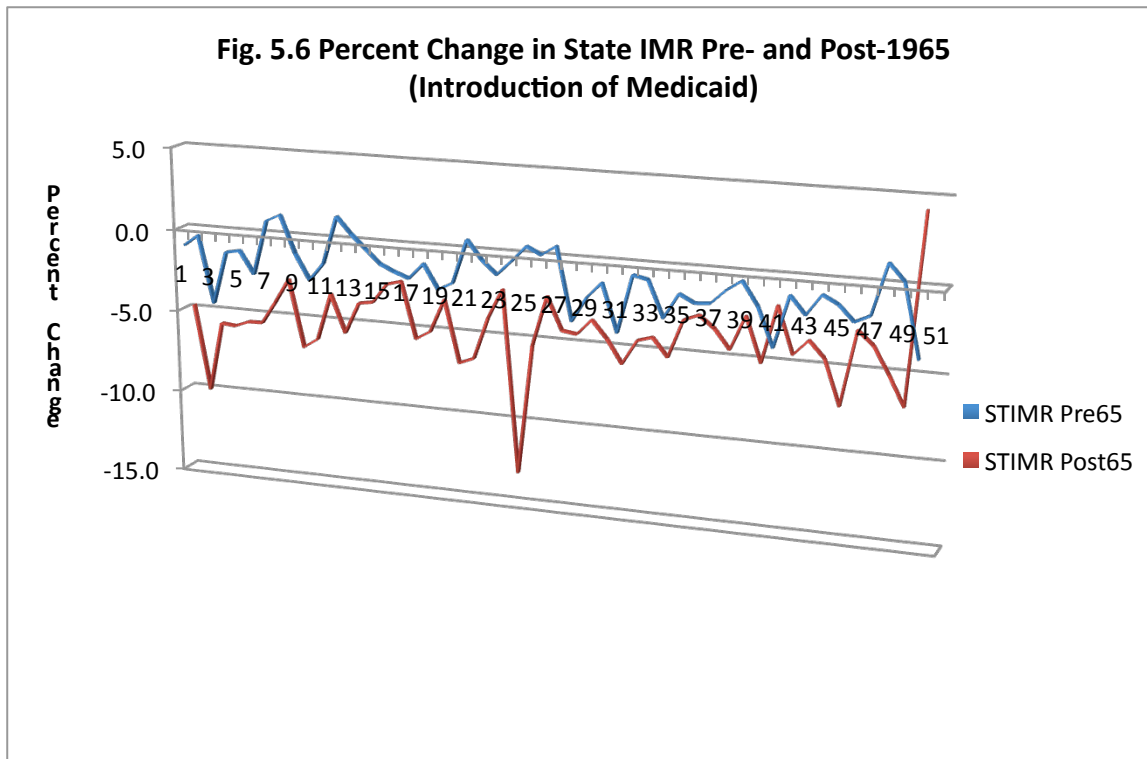
\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
<b>Post-1965 (introduction of Medicaid)</b>	***	-	*	-
<b>Post-1996 (enactment of PRWORA)</b>	***	+	**	+

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

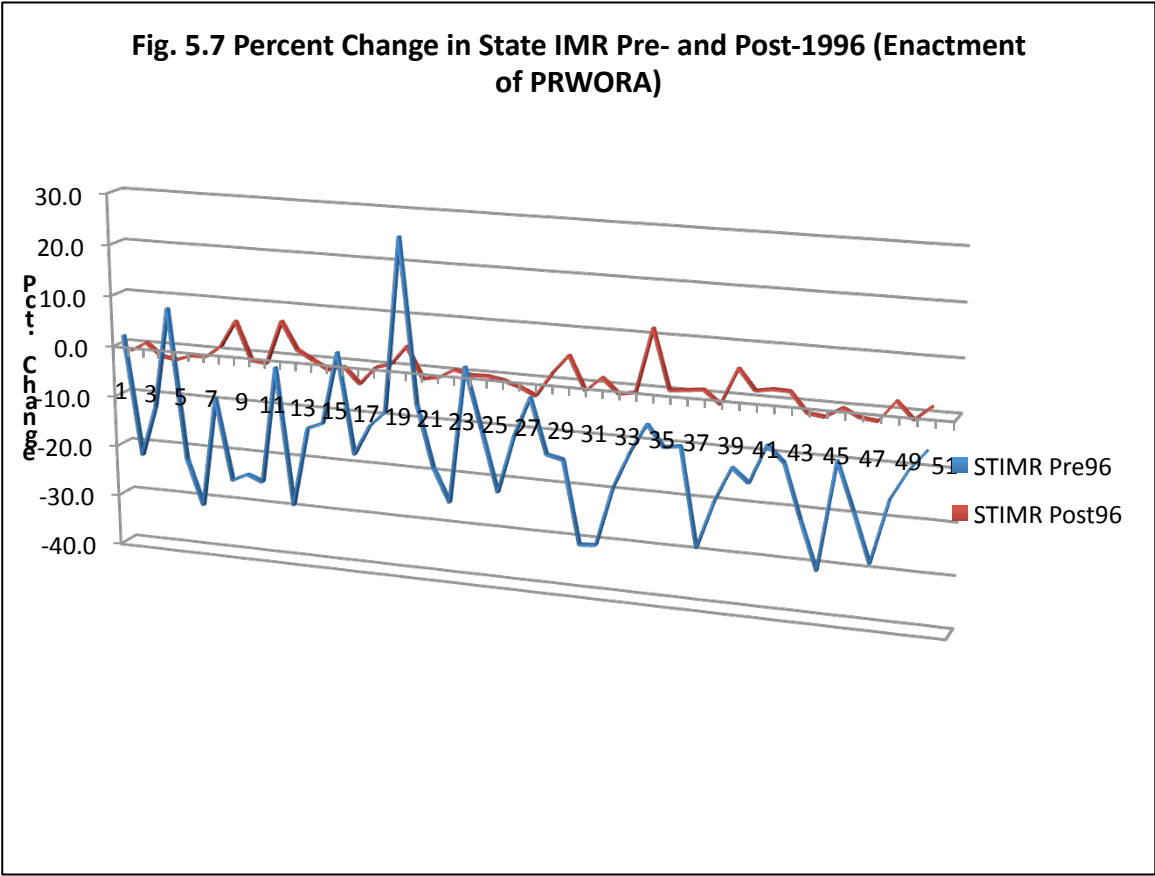
Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests



Based on infant mortality data from *Vital Statistics of the United States*

Following the same approach to test the enactment of PRWORA, infant mortality rates and the racial gap are all substantially higher on average in the five years after 1996. This finding supports  $H_{15}$ , which predicted higher IMRs, but not  $H_{16}$ , which predicted a smaller gap. But in the case of PRWORA, the difference of means test is inadequate to explain what actually occurred after President Clinton fulfilled his pledge to “end welfare as we have come to know it.” From 1991 to 1995, prior to enactment of this welfare austerity measure, the state infant mortality rate underwent an average double-digit decline in 33 states, with the percent decline in most above 20% (see Fig. 5.7). However, five years after PRWORA, the picture was starkly different. By 2001, while infant mortality rates declined from the pre-PRWORA period in six states, 38% of the states (19 in total) actually witnessed a percentagewise *increase* in their rates compared to before 1996 (see Appendix II). This included a double-digit rise in the state infant mortality rate in North Dakota (11.3%).





Based on infant mortality data from *Vital Statistics of the United States* and CDC WONDER

*Institutional Factors*

While not a formally declared hypothesis, it has been suggested in conversations with other scholars that one possible source of the better-than-expected performance in black infant mortality rates in the states of the traditional South could be how local health departments are governed. Specifically, states in which control of local health departments happens at the state rather than the local level may result in more consistent programmatic execution. This

governance type could lead to more uniform application of programs targeting maternal and child health, regardless of race and other social factors.

The states of the traditional South, however, are not consistently found in one governance category, but are instead dispersed among all four governance types. Furthermore, difference of means tests show that state and white infant mortality rates are different in the presence of this institutional factor, but that state governance of local health departments is associated with increased infant mortality. The black IMR and the racial gap are not statistically different compared with other governance configurations.

**Table 5.8 Significant Institutional Factors in Difference of Means Tests of Infant Mortality**

Variable	State IMR	Impact	White IMR	Impact
<b>State governance of local health department</b>	***	+	**	+

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

*Conventional Political Culture Factors*

The conceptual heart of this emerging research project is an investigation of the role that political culture may play in sustaining infant mortality rates in the United States, as well as the persistent black-white gap in the rates. The preliminary testing of these variables begins with measures of what is termed in this research “conventional” political culture; that is, expressions of political culture that are not explicitly race-driven or racialized in nature. While it is in fact difficult, if not disingenuous, to fully divorce issues of race from any aspect of American political culture, several variables have been treated as such here. Those variables include the

party ID of the state governors (Republican or Democrat), categorizations of state political culture as moralistic, individualistic or traditionalistic by Elazar (1966), and a measure of state conservatism based on the number of times in which conservative candidates carried a state in presidential elections from 1952 to 2008.

### *Republican Governors*

At the national level, the Republican Party is associated, at least rhetorically, with support for business, social conservatism and an ideological opposition to social welfare programs like Medicaid, shown in prior research to be associated with lower infant mortality rates (Copeland and Meier, 1987). Difference of means tests suggest that infant mortality rates and the racial gap are all lower under Republican governors.  $H_1$ , which predicted the opposite outcome, is not supported.

### *Moralistic, Individualistic and Traditionalistic State Cultures*

Using state political culture categories devised by Elazar (1966), infant mortality rates and the racial gap are lower on average in moralistic states. In individualistic states, the white IMR alone appears to be slightly lower, with a wider racial gap. Traditionalistic states, meanwhile, have higher IMRs and a larger racial gap.  $H_5$ , which predicted better outcomes for moralistic states, is thus supported.

### *State Conservatism*

As stated above, the measure of state conservatism is derived from electoral data, and is based on the number of elections in which the conservative candidate carried the state's electoral votes over 15 election cycles. Using this metric, state, white and black infant mortality rates are higher on average in very conservative states. The racial gap is not significantly different under this measure.  $H_2$ , which predicted worse outcomes for black IMR, is thus supported.

**Table 5.9 Significant Conventional Political Culture Factors in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
Republican governor	***	-	***	-
Moralistic political culture	***	-	**	-
Individualistic political culture	NS		*	-
Traditionalistic political culture	***	+	***	+
State very conservative	***	+	***	+

\*  $p > .05$ , \*\*  $p > .01$ , \*\*\*  $p > .001$  NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
Republican governor	***	-	***	-
Moralistic political culture	***	-	**	-
Individualistic political culture	NS		***	+
Traditionalistic political culture	***	+	*	+
State very conservative	***	+	NS	

*Racialized Political Culture Factors*

The following variables collectively reflect expressions of what is termed in this research racialized aspects of American political culture. As discussed in the first three chapters, racial concerns, primarily of preserving white supremacy and purity against alleged black inferiority and taint, underlie assumptions behind the creation and design of the core institutions of the

American state itself. In the recent past, the anti-black (and, in some cases, more broadly anti-nonwhite) animus embedded in this political culture manifested itself as legal proscriptions at every level of government in the United States that limited interaction between whites and nonwhites. These segregation laws, as legal devices to socially construct blacks and other nonwhites in negative ways, are the source of most of the variables considered herein. More importantly, one of the central assertions of this research is that such legal manifestations of racial hatred and racism have a legacy effect that continues to shape the policy space for addressing the needs of black Americans in particular for years to come. This effect, moreover, should be evident across a spectrum of outcomes, including in infant mortality and other key population health indicators.

*Hero & Tolbert (1996) Racial-Ethnic Diversity Index*

The first of the racialized political culture variables tested is the index of racial-ethnic diversity formulated by Hero and Tolbert (1996). Mirroring the underlying themes of this research, the authors view racial and ethnic diversity as “critical in explaining politics and policy because racial/ethnic diversity takes on political meaning within social structures and constructions.” (854) In a departure from other scholarly work on race and ethnicity, the index focuses heavily on white ethnic diversity, and provides an alternative to Elazar’s (1966) less rigorous but frequently used measure of state political culture. States are thus classified as ethno-racially white homogeneous (i.e., largely populated by whites from one ethnic group), bifurcated (largely homogeneous whites and blacks or other large racial or ethnic group), and diverse (states with ethnically diverse white and nonwhite populations).

In means tests, ethno-racially white homogeneous states have lower state and black IMRs and a smaller racial gap on average, while bifurcated states are associated with higher state, white and black infant mortality rates, the latter at the  $p > .05$  level. States with the most racial-ethnic diversity, meanwhile, have lower state and white infant mortality rates compared to less ethno-racially diverse states. But contrary to the literature, racially and ethnically mixed states are associated with a larger racial gap.  $H_6$ , which predicted a lower black IMR in more racially and ethnically diverse states, is not supported.

#### *Preclearance under VRA 1965*

The Voting Rights Act of 1965 was an attempt at the federal level to counter widespread action to deny the right to vote primarily to black Americans in the Jim Crow South, but to other groups in other states as well. Under the provisions of the act, a number of states, as well as specified counties and townships in many others, require prior clearance (preclearance) by federal authorities in order to make any changes to voting methods or procedures. The assumption underlying my use of this variable is that interference with a fundamental American right by certain states, requiring a federal corrective that remains in place to this day, strongly suggests a level of anti-black animus that is not likely to have completely dissipated.

The difference of means test results show that on average, infant mortality rates are worse in states in which 10 or more counties or townships or the entire state are covered under the preclearance requirements of VRA 1965, supporting  $H_4$ , which predicted worse outcomes in states requiring preclearance. The racial gap is also significantly different and higher compared to states without such requirements.

### *Duration of Anti-Miscegenation Laws*

Laws prohibiting racial intermarriage, usually between whites and blacks, were among the first and most widespread of the segregation laws that have subsequently shaped American socioeconomic and political life. In some states, like Kansas, such laws lasted just four years, versus nearly a century in California and Nevada, and 276 years in the state of Virginia. Beyond the fact that political will existed in the majority of states to enact segregation laws, it is plausible that their sheer duration may have left an indelible mark on the policy space for future policies with respect to nonwhite (and especially black) citizens. Upon examination, state, white and black infant mortality rates are higher on average for states that had such laws in place for at least 50 years, although the racial gap in such states is not significantly different.  $H_3$ , which predicted that the black rate would be higher in such states, is thus supported.

### *Differences in Anti-Miscegenation Laws: Focus, Penalties and the Status of Children*

The previous variables concerning laws banning interracial marriage have measured the issue in broad strokes. But anti-miscegenation laws were far from uniform in their design across the states. While the group primarily targeted in many laws was black Americans, blacks were not always the first group named in the law for exclusion. These laws also differed in how the status of children resulting from interracial unions was viewed (legitimate versus illegitimate), as well

as in the penalties for any who violated them. The latter could range from a substantial fine to up to 10 years<sup>40</sup> imprisonment.

When tested, state, white and black infant mortality rates are different on average and higher when blacks are mentioned first in any anti-miscegenation laws. The same outcomes (albeit at the  $p > .05$  level for the white IMR) hold for states that viewed interracial children as illegitimate versus those that did not. State and black infant mortality, meanwhile, are higher in states that wrote a penalty for violation of 3 years or more imprisonment into their anti-miscegenation laws. The same holds for the racial gap with respect to the status of children and the jail penalty for violation. These findings too support  $H_3$ , which predicted that black infant mortality rates would suffer with the most severe segregation laws.

### *Total Types of Segregation Laws*

As discussed in Chapter 2, the variety of segregation laws that emerged in many states covered multiple spheres of life beyond marriage, including education, public transportation, housing opportunity, and miscellaneous areas of public life, such as sports events and even imprisonment. The more such laws in a state, presumably the more intense (and perhaps persistent) the anti-black racial animus that spawned them. This could translate into worse black infant mortality rates.

Once again, difference of means tests suggest that the state, white and black infant mortality rates, though not the racial gap, are higher on average in states that enacted laws or

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<sup>40</sup> According to Browning (1951), violating anti-miscegenation laws carried a penalty of up to 10 years imprisonment in the states of Indiana, Maryland, Mississippi, North Carolina, North Dakota, and South Dakota.



ordinances in four to five of the five possible segregation categories.  $H_3$ , which again predicted that the black rate would worsen under these conditions, is thus supported.

**Table 5.10 Significant Racialized Political Culture Factors in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
Hero & Tolbert (1996) racial-ethnic diversity-homogenous	***	-	NS	
Hero & Tolbert (1996) racial-ethnic diversity-bifurcated	***	+	**	+
Hero & Tolbert (1996) racial-ethnic diversity-mixed	*	-	**	-
Preclearance requirement under VRA 1965	***	+	*	+
Anti-miscegenation (AM) laws lasted 50 years or more	***	+	**	+
Blacks named first in AM laws	***	+	**	+
Interracial children illegitimate in AM laws	***	+	*	+
Jail of 3 years or more for violating AM laws	***	+	NS	
State had more than 3 of 5 types of segregation laws	***	+	***	+

\*  $p > .05$ , \*\*  $p > .01$ , \*\*\*  $p > .001$  NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
Hero & Tolbert (1996) racial-ethnic diversity-homogenous	*	-	***	-
Hero & Tolbert (1996) racial-ethnic diversity-bifurcated	*	+	NS	
Hero & Tolbert (1996) racial-ethnic diversity-mixed	NS		***	+
Preclearance requirement under VRA 1965	***	+	**	+
Anti-miscegenation (AM) laws lasted 50 years or more	*	+	NS	
Blacks named first in AM laws	**	+	NS	
Interracial children illegitimate in AM laws	***	+	***	+
Jail of 3 years or more for violating AM laws	***	+	***	+
State had more than 3 of 5 types of segregation laws	***	+	NS	

\*  $p > .05$ , \*\*  $p > .01$ , \*\*\*  $p > .001$  NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

## *Economic Variables*

Of the possible non-medical determinants of health, none is perhaps more important than income, both personal and that of where one resides (Kawachi, Subramanian and Almeida-Filho, 2002). The effects of economic factors on infant mortality, as a key public health indicator, are no exception. Every measure of infant mortality forwarded in this research—state, white, black and the racial gap in rates—is lower on average by nearly half in states with the highest gross domestic product. For state per capita income, the results are even more dramatic, with infant mortality rates and the racial gap in states with the highest per capita income roughly a third the size of such rates elsewhere.

Although technically policies, two additional economic variables related to infant and maternal health spending are also examined. The first is average monthly cash payments to families under Aid to Families with Dependent Children (AFDC). Originally authorized as an entitlement program under the Social Security Act of 1935, AFDC is a now defunct “matching fund” federal program replaced with Temporary Assistance for Needy Families (TANF) by the enactment of Personal Responsibility and Work Reconciliation Act (PRWORA) in 1996. The second is the level of Medicaid spending in a state, as measured by Medicaid payments per enrollee.

In contrast to the more conventional economic variables of state GDP and per capita income, the presence of AFDC payments above the mean appears to have a mixed impact on infant mortality rates and the racial gap. Only the state and black infant mortality rates and the racial gap are statistically different and lower when AFDC payments per family are above the mean. For Medicaid payments per enrollee, all infant mortality rates and the racial gap are larger

when such payments are above the mean.  $H_{10}$ , which predicted that infant mortality rates would be lower under such circumstances, is thus unsupported.

**Table 5.11 Significant Economic Factors in Difference of Means Tests of Infant Mortality**

Variable	STIMR	Impact	WIMR	Impact
<b>Income per capita</b>	***	-	***	-
<b>AFDC average monthly cash payments to families</b>	***	-	NS	
<b>Medicaid payments per enrollee</b>	**	+	**	+
<b>GDP</b>	***	-	***	-

\*  $p > .05$ , \*\*  $p > .01$ , \*\*\*  $p > .001$  NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

Variable	BIMR	Impact	Gap	Impact
<b>Income per capita</b>	***	-	***	-
<b>AFDC average monthly cash payments to families</b>	***	-	***	-
<b>Medicaid payments per enrollee</b>	***	+	***	+
<b>GDP</b>	***	-	***	-

\*  $p > .05$ , \*\*  $p > .01$ , \*\*\*  $p > .001$  NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) infant mortality or racial gap in difference of means tests

### Remaining Hypotheses

In concluding the difference of means tests, four hypotheses that have not previously been addressed will be examined here. The first is below.

*H<sub>9</sub>: Medicaid payments per enrollee will be lower in states with more extensive histories of segregation prior to the 1990s.*

The rationale driving this hypothesis is similar to that for other previously discussed policies, in which racial assumptions arising from a state’s political culture might come into play. Given the association of black beneficiaries with Medicaid and a state’s direct role in setting income eligibility and having to first make payments that are later reimbursed, political culture effects should be evident prior to the 1990s, when the program is thought to have become viewed as a middle-class entitlement.

Upon testing, Medicaid payments per enrollee prior to the 1990s are not significantly different in states that had the most types of segregation laws. However, when post-1990 years are included, a high number of segregation laws is highly significant ( $p < .001$ ). Payments are also significantly lower when anti-miscegenation laws considered interracial children illegitimate ( $p < .01$ ) and states have preclearance requirements for 10 or more counties or the entire state ( $p < .05$ ). These results give tentative support to *H<sub>9</sub>*, which predicted that payments would be lower in states with more extensive histories of legal segregation.

**Table 5.12 Significant Factors in Difference of Means Tests of Medicaid Payments per Enrollee**

Variable	Pre90s	Impact	All Years	Impact
<b>Interracial children illegitimate in AM laws</b>	NS		**	-

<b>More than 3 of 5 possible types of segregation laws enacted</b>	NS		***	-
<b>Preclearance required for 10 counties or the entire state</b>	NS		*	-
<b>Blacks named first in AM laws</b>	NS		NS	
<b>3 or more years in prison for AM law violation</b>	NS		NS	

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) Medicaid payments per enrollee in difference of means tests

The remaining five hypotheses are related to Aid to Families with Dependent Children. In order they are as follows:

*H<sub>17</sub>: High infant mortality rates, as a proxy for need, should be associated with higher AFDC payments.*

*H<sub>18</sub>: Consistent with the assumptions of Corollary 3a, from the 1960s, higher than average black population size is associated with lower AFDC payments.*

*H<sub>19</sub>: Consistent with Corollary 6a, AFDC payments will be lower in states that had more numerous or more punitive segregation laws.*

*H<sub>20</sub>: The more conservative a state, the lower the AFDC payments.*

*H<sub>21</sub>: Republican governors, reflecting the party's rhetorical opposition to public assistance and other social programs, should be associated with lower AFDC payments.*

Under difference of means tests, AFDC payments per family are significantly different and elevated when state, white and black infant mortality rates and the racial gap are higher than average ( $p > .001$  for all). **H<sub>17</sub>** is thus supported. Similarly, the presence of a larger than average black population size is associated with lower AFDC payments ( $p > .001$ ), providing support for **H<sub>18</sub>**.

As predicted by **H<sub>19</sub>**, AFDC payments are lower on average when anti-miscegenation laws considered children from interracial unions illegitimate, violation of the law incurred jail time of up to 3 years or more, blacks were mentioned first in anti-miscegenation laws, and if preclearance under VRA 1965 was required for 10 counties or more or the entire state (all at  $p > .001$ ). Having a high total number of segregation laws also appears to be associated with lower AFDC payments ( $p > .001$ ).

Finally, AFDC payments are lower when states are very conservative on the election-based conservatism measure used ( $p > .001$ ), providing support for **H<sub>20</sub>**. Republican governors are also associated with a statistically significant difference in AFDC payments, except payments are actually higher under this condition ( $p > .001$ ). **H<sub>21</sub>**, which predicted the opposite effect, is not supported.

**Table 5.13 Significant Factors in Difference of Means Tests of Aid to Families with Dependent Children**

Variable	Aid to Families With Dependent Children	Impact
<b>Above average state infant mortality rate</b>	***	+
<b>Above average white infant mortality rate</b>	***	+
<b>Above average black infant mortality rate</b>	***	+
<b>Above average racial gap</b>	***	+
<b>Interracial children illegitimate in AM laws</b>	***	-
<b>Black population size above average</b>	***	-
<b>More than 3 of 5 possible types of segregation laws enacted</b>	***	-
<b>Preclearance required for 10 counties or the entire state</b>	***	-
<b>Blacks named first in AM laws</b>	***	-
<b>3 or more years in prison for AM law violation</b>	***	-
<b>State very conservative</b>	***	-
<b>Republican governors</b>	***	+

\* p>.05, \*\*p>.01, \*\*\*p>.001 NS: Not Significant

Impact: Whether the factor is associated with higher (+) or lower (-) average monthly payments to families under AFDC in difference of means tests

By way of summary, Table 5.15 below offers an at-a-glance look at tentative and full support for the hypotheses forwarded in Chapter 4 based on difference of means tests. A similar table will follow the multivariate regression analysis at the end of the next chapter. For reference, the hypotheses are as follows:

*H<sub>1</sub>: Relative to when Democratic governors are in office, infant mortality (and especially black infant mortality) is higher when states are under Republican governorships.*

*H<sub>2</sub>: Infant mortality is higher in states that tend to vote for conservative candidates in presidential elections.*

*H<sub>3</sub>: Black infant mortality is worse in states where the characteristics of any segregation laws were more extreme in terms of number of laws, duration, degree of specific racial targeting of blacks, and possible jail time for violation.*

*H<sub>4</sub>: States that require preclearance for election-related changes under Section 5 of the VRA of 1965 have worse outcomes for black infant mortality.*

*H<sub>5</sub>: Moralistic states should have the best outcomes in black and white infant mortality, with infant mortality expected to deteriorate in individualistic state cultures, presumably reflecting the relatively hands-off approach to governance and emphasis on private market concerns. Similarly, traditionalistic states, encompassing most of the former slave states, should have poor outcomes, reflecting social conservatism and anti-black affect.*

*H<sub>6</sub>: States with more racial and ethnic diversity have lower black infant mortality rates.*

*H<sub>7</sub>: States with more restricted funding of abortion have worse outcomes for both black and white infant mortality.*

*H<sub>8</sub>: Infant mortality rates decline sharply with the introduction of Medicaid, with black infant mortality experiencing the most dramatic decline. However;*

*H<sub>9</sub>: Medicaid payments per enrollee are lower in states with more extensive histories of segregation prior to the 1990s.*

*H<sub>10</sub>: Infant mortality rates, particularly the black IMR, are higher in states with lower Medicaid spending.*

*H<sub>11</sub>: Higher Medicaid income eligibility for pregnant women should result in lower infant mortality rates and a smaller racial gap.*

*H<sub>12</sub>: Black infant mortality is higher in states with higher incarceration rates and percentage of the black population disenfranchised.*

*H<sub>13</sub>: Infant mortality rates increase with more severe disenfranchisement laws in a state.*

*H<sub>14</sub>: The rise in incarceration rates, as an external stressor and proxy for disadvantage, is associated with growth in the gap in black-white infant mortality rates.*



*H<sub>15</sub>: Infant mortality rates increase in the years immediately following the passage of PRWORA.*

*H<sub>16</sub>: The black-white gap in infant mortality rates decreases following the passage of PRWORA.*

*H<sub>17</sub>: High infant mortality rates, as a proxy for need, are associated with higher AFDC payments. However,*

*H<sub>18</sub>: Consistent with the assumptions of Corollary 3a, from the 1960s, higher than average black population size is associated with lower AFDC payments.*

*H<sub>19</sub>: Consistent with Corollary 6a, AFDC payments will be lower in states that had more numerous or more punitive segregation laws.*

*H<sub>20</sub>: The more conservative a state, the lower the AFDC payments.*

*H<sub>21</sub>: Republican governors, reflecting the party's rhetorical opposition to public assistance and other social program, should be associated with lower AFDC payments.*

**Table 5.14 Support for Hypotheses Based on Difference of Means Tests**

Hypotheses	Supported	Hypotheses	Supported
H <sub>1</sub>	✗	H <sub>12</sub>	✗
H <sub>2</sub>	✓	H <sub>13</sub>	✓
H <sub>3</sub>	✓	H <sub>14</sub>	✓
H <sub>4</sub>	✓	H <sub>15</sub>	✓
H <sub>5</sub>	✓	H <sub>16</sub>	✗
H <sub>6</sub>	✗	H <sub>17</sub>	✓
H <sub>7</sub>	✗	H <sub>18</sub>	✓
H <sub>8</sub>	✓	H <sub>19</sub>	✓
H <sub>9</sub>	✓	H <sub>20</sub>	✓
H <sub>10</sub>	✗	H <sub>21</sub>	✗
H <sub>11</sub>	✓		

## Conclusion

The difference of means tests performed as part of hypothesis testing in this chapter offer a glimpse into how a variety of different factors, including past policy choices and political

culture, may impact a vital public health indicator. Given the distinct and persistent black-white gap in infant mortality and the racially driven context that has shaped it, it is noteworthy that the results suggest that America's historically recent segregationist past may still exert a negative effect on the health of both black and white infants. The time series regression models in the next chapter will attempt to examine this relationship in further detail.

## **Chapter 6: Empirical Analysis**

### **Part II: Time Series Analysis**

#### **Introduction**

In the previous chapter, a wide range of factors with both direct and indirect impact on infant mortality rates, the racial gap, and Aid to Families with Dependent Children was examined. In this section, I address these outcomes as dependent variables in four time-series regression models. The first model examines variation in infant mortality (state, white, black and the racial gap) using what I term a parsimonious model. This model uses only independent variables thought to have a direct impact on infant mortality rates based on the literature and the bivariate results from Chapter 5. A similar approach will be taken for predicting variation in monthly payments under Aid to Families with Dependent Children (AFDC), except that the predictor variables used will be political culture and other variables believed to shape the policy space in which AFDC was designed and executed. A third model returns to infant mortality rates, adding to the initial model the political variables used to predict AFDC payments. In this context, the conventional and racialized political culture measures are meant to proxy the policy space in which infant mortality, and attempts to address this issue via public policy, takes place. Finally, a two-stage regression model will be employed to explore the interaction between two policies and infant mortality rates—AFDC and Medicaid payments. The purpose of this final model is an attempt to address what has been a criticism in earlier iterations of this research—the need to bridge the gap between more amorphous or indirect political factors (i.e., histories of segregation, conservative political culture) and the health outcomes being attributed to them.

## **Model 1: State Variation in Infant Mortality Rates**

The first time-series model in the analysis examines factors drawn from the literature and the previous chapter that may have a more direct impact on variation in infant mortality rates and the racial gap. These factors, based on data collected for this research, can be classified under the following seven broad categories: Abortion, Race, Nutrition, Prenatal Care, Socioeconomics, Psychological (Environmental) Stress, and Policy. A breakdown of specific variables follows below.

Under the Abortion category, the variables used are the state abortion rate (1973-2008, with missing state-years interpolated<sup>41</sup>) and the restriction of use of public funds for abortion to cases in which the mother's life is endangered or cases of rape or incest. For Race, the percent black of the state's population is used. For Nutrition, Aid to Families with Dependent Children average payments per family is the proxy used. For Prenatal Care, Medicaid income eligibility for pregnant women (expressed as a percentage over the federal poverty level) is used. For Socioeconomics, income per capita (1950-2008, in current dollars) and black female educational attainment (college degree or more for women aged 25 or over) have been selected.

Under Psychological (Environmental) Stress, I use several variables that proxy disadvantaged social environments, both presumed most relevant for black infant mortality rates

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<sup>41</sup> Interpolation and extrapolation are statistical techniques for deriving missing data. Interpolation is generally used to fill in between available data points (ex. Estimate "B" when "A" and "C" are known). Extrapolation is typically used to estimate missing data prior to or after the last known data point (ex. Estimate "A" or "D" when "B" and "C" are known). These estimates are calculated in a linear manner, which could result in inaccuracies when attempting to estimate non-linear data.

given the disproportionate effects of each on that community. In addition to poverty rates, included as a measure of a disadvantaged social environment in the states is an index of a state being “tough on crime.” This measure consists of several variables viewed independently in Chapter 5, specifically higher than average incarceration rates (above 215.6 per 100,000 people), percentages of the black population of a state under felony disenfranchisement (over 9.09%), black-white disparities in imprisonment (over 6.6 to 1), and the most severe laws disenfranchising ex-felons (default permanent disenfranchisement).

Finally for Policy, I include for analysis state expenditures on maternal and child health services (in 2008 dollars) authorized under Title V of the Social Security Act of 1935, since the mandate for this federal block grant program explicitly calls for spending on efforts to reduce infant mortality.<sup>42</sup> Also included is a variable capturing the effects of an important policy change: infant mortality rates before and after the enactment of the Personal Responsibility and Work Reconciliation Act (PRWORA) in 1996.

In light of extant research on variation in infant mortality rates, the variables for the model from past research are as follows: abortion rates, percent black of the state’s population, Medicaid spending per enrollee (natural log), state income per capita (natural log), black female educational (college), and state poverty rates. The key variables of interest are: restrictiveness of public funding of abortion, average monthly payments to families by state under the Aid to Families with Dependent Children (AFDC) program, degree to which the state is considered “tough on crime,” state maternal and child health service spending (natural log), and the

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<sup>42</sup> U.S. Department of Health and Human Services, Human Resources and Services Administration (<http://mchb.hrsa.gov/programs/titlevgrants/index.html>). Accessed October 18, 2012.

difference in infant mortality rates after the 1996 passage of PRWORA. The simple equation modeled is thus:

$$\text{IMR}_{ij} = a + \text{ablaw}_{ij} + \text{post96}_{ij} + \text{logmatch08}_{ij} + \text{adcfam98}_{ij} + \text{pregeligbl}_{ij} + \text{toughoncrime}_{ij} + \text{blkpop}_{ij} + \text{logmedic70}_{ij} + \text{logincom}_{ij} + \text{blkedbs}_{ij} + \text{abort}_{ij} + \text{pover}_{ij} + e$$

where  $ij$  represent the state ( $i$ ) and year ( $j$ ), respectively.

#### *Results of Model 1 (State IMR)*

In Model 1 predicting state infant mortality rates, there is statistical significance for half of the independent variables used [see table below]. Contrary to expectations, more restrictive public funding of abortion is associated with the second-largest reduction in the state infant mortality rate of the variables examined. States that restrict the use of Medicaid and other public funds reduce state infant mortality rates by roughly .79 compared to those that do not. Average monthly AFDC payments to families are not a statistically significant predictor of a higher state IMR; neither is spending on maternal and child health services, the “tough on crime” measure, or a more generous threshold over the federal poverty rate for Medicaid income eligibility for pregnant women. As shown in Chapter 5 and reflected in the multivariate time-series analysis, the years after the passage of PRWORA, which placed a bevy of restrictions on public assistance recipients, are associated with an increased state infant mortality rate. The variables from past research perform largely as suggested by the relevant literature including per capita income

(natural log), which reduces the IMR by 5 for every unit increase in income. The exception is poverty, which is not statistically significant. These results offer support for  $H_{15}$ , which predicted worse infant mortality outcomes following passage of PRWORA. If the alpha level for significance is set to  $p > .1$ , AFDC payments, Medicaid income eligibility for pregnant women, and poverty all become statistically significant. However, only Medicaid income eligibility behaves as anticipated, helping to reduce the state IMR; higher AFDC are linked to higher infant mortality, while the rate is lower when poverty rates are higher.

**Table 6.1 Model 1: Predictors of State Infant Mortality Rates**

Predictors	Coefficient	Standard Error	Significance
Restricted public funding of abortion	-0.7867043	0.2132897	***
Post-PRWORA	0.2567627	0.1095288	*
Maternal and child health spending	-0.0201845	0.0629823	NS
AFDC payments	0.0008867	0.0004685	NS
Medicaid income eligibility for pregnant women	-0.0042459	0.0023197	NS
State is tough on crime	-0.0042599	0.0758763	NS
Black population	0.1445894	0.0115877	***
Medicaid payments	-0.1554637	0.0749964	*
Per capita income	-5.323834	0.2163262	***
College ed attainment for black females	-0.024581	0.0176744	NS
Abortion rate	-0.0366704	0.0067731	***
Poverty rate	-0.0454168	0.0246442	NS

N=1183; \* $p > .05$ , \*\* $p > .01$ , \*\*\* $p > .001$ ; Overall  $R^2$ : .8531

*Results of Model 1 (White IMR)*

While similar to the results seen with state infant mortality rates, several variables differ in important ways. The post-PRWORA measure modeling the transformation of welfare, which was significant for the state IMR, is not a significant predictor of white infant mortality, nor is Medicaid spending per enrollee. Both poverty and black female educational attainment (college), however, are significant for lowering white infant mortality. More generous Medicaid income eligibility for pregnant women is associated with a lower white IMR, providing support for *H<sub>11</sub>*. Black female educational attainment and white female educational attainment are highly correlated, so this finding is effectively consistent with the literature on the salubrious effects of education on white American health.

**Table 6.2 Model 1: Predictors of White Infant Mortality Rates**

Predictors	Coefficient	Standard Error	Significance
Restricted public funding of abortion	-0.7684393	0.1619199	***
Post-PRWORA	0.1665756	0.1010539	NS
Maternal and child health spending	0.0230587	0.0501562	NS
AFDC payments	0.0008097	0.0004063	*
Medicaid income eligibility for pregnant women	-0.0054503	0.0017209	**
State is tough on crime	0.0663133	0.0627429	NS
Black population	0.0259529	0.0088312	**
Medicaid payments	-0.0083293	0.0689899	NS
Per capita income	-5.242979	0.193805	***
College ed attainment for black females	-0.0738734	0.0142993	***
Abortion rate	-0.033193	0.0059259	***
Poverty rate	-0.0889061	0.0204406	***

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8647



*Results of Model 1 (Black IMR)*

When predicting black infant mortality, a number of differences emerge in comparison to the state and white infant mortality rates. Among the variables of interest, two reach statistical significance: state spending on maternal and child health services and payments to families under AFDC. However, while maternal and child health spending is in the expected direction (i.e., a lower black IMR), AFDC payments are associated with an elevated black IMR. For the variables identified from past research, as with the state IMR, Medicaid spending per enrollee is associated with a lower black IMR. Interestingly, black female college educational attainment is not statistically significant, but the sign is in the direction of a higher rate. This is largely consistent with the weathering hypothesis proposed by Geronimus and others, in which black mothers experience better maternal and child outcomes at younger ages due to the cumulative effects of racism and disadvantage. At  $p > .1$ , the “tough on crime” measure is also significant, and in the expected direction of higher black infant mortality.

**Table 6.3 Model 1: Predictors of Black Infant Mortality Rates**

<b>Predictors</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Significance</b>
<b>Restricted public funding of abortion</b>	-0.1552442	0.6553751	NS
<b>Post-PRWORA</b>	-0.4097029	0.309223	NS
<b>Maternal and child health spending</b>	-0.4093283	0.1769773	*
<b>AFDC payments</b>	0.0046345	0.0013668	***
<b>Medicaid income eligibility for pregnant women</b>	0.0042288	0.0066494	NS
<b>State is tough on crime</b>	0.3698874	0.2131167	NS
<b>Black population</b>	0.0703644	0.0325274	*
<b>Medicaid payments</b>	-0.4581433	0.2034389	*
<b>Per capita income</b>	-6.754207	0.7421001	***
<b>College ed attainment for black females</b>	0.1534261	0.1155849	NS

<b>Abortion rate</b>	<b>-0.0161154</b>	<b>0.0202505</b>	<b>NS</b>
<b>Poverty rate</b>	<b>0.007738</b>	<b>0.0736014</b>	<b>NS</b>

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .5821

*Results of Model 1 (Racial Gap)*

Similar to results for the black infant mortality rate, the same two variables of interest—maternal and child health services spending and average monthly AFDC payments to families—are significant. Maternal and child health services spending is associated with a smaller black-white gap in infant mortality rates, with a unit increase in spending reducing the racial gap by 0.4. AFDC payments, meanwhile, continue to be associated with worse outcomes, although the impact (coefficient of 0.003) is admittedly slight. Here again, none of the predictor variables match per capita income in magnitude, with a unit increase in income associated with a reduction in the gap of 1.73. When p>.1, the post-PRWORA period is associated with a smaller racial gap, with Medicaid income eligibility, the “tough on crime” measure, and black female educational attainment (college) all linked to a wider racial gap.

**Table 6.4 Model 1: Predictors of the Black-White IMR Gap**

<b>Predictors</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Significance</b>
<b>Restricted public funding of abortion</b>	<b>0.3876049</b>	<b>0.625117</b>	<b>NS</b>
<b>Post-PRWORA</b>	<b>-0.5212797</b>	<b>0.3051543</b>	<b>NS</b>
<b>Maternal and child health spending</b>	<b>-0.4373504</b>	<b>0.1704013</b>	<b>**</b>
<b>AFDC payments</b>	<b>0.0030725</b>	<b>0.0013366</b>	<b>*</b>
<b>Medicaid income eligibility for pregnant women</b>	<b>0.012095</b>	<b>0.0063173</b>	<b>NS</b>
<b>State is tough on crime</b>	<b>0.3697822</b>	<b>0.2064669</b>	<b>NS</b>
<b>Black population</b>	<b>0.0626663</b>	<b>0.0309843</b>	<b>*</b>
<b>Medicaid payments</b>	<b>-0.4203611</b>	<b>0.2008027</b>	<b>*</b>

<b>Per capita income</b>	<b>-1.731426</b>	<b>0.7266674</b>	<b>*</b>
<b>College ed attainment for black females</b>	<b>0.1956221</b>	<b>0.1122367</b>	<b>NS</b>
<b>Abortion rate</b>	<b>0.0154709</b>	<b>0.0198147</b>	<b>NS</b>
<b>Poverty rate</b>	<b>0.0348644</b>	<b>0.0712878</b>	<b>NS</b>

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .1074

The breakdown of infant mortality and the gap above in Model 1 suggests both interesting commonalities but also important differences in outcomes. While the state and white IMRs are both lower when public funding of abortion through Medicaid and other means is restricted (an unexpected finding), only the state IMR is significantly impacted by the post-PRWORA period in Model 1. Similarly, while monthly payments to families under AFDC is associated with higher white and black infant mortality rates, only the black infant mortality rate and the racial gap experience a statistically significant reduction when state maternal and child health spending is considered. Model 1 thus suggests that seemingly universal policies, perhaps due to their design and intent, may nonetheless have varying effects on different ethno-racial groups in the U.S.

### **Model 2: State Variation in AFDC Payments**

The second major model for analysis tests the proposition that state political culture, and specifically measures of racialized political culture, help explain state variation in policy implementation. The dependent variable for the first model examined is average monthly payments to families under Aid to Families with Dependent Children (adcfam98), a program strongly associated with the kind of cash payment-based public assistance long attacked politically as breeding dependency in recipients, quite often with racial overtones.

Because of this racialized element, in addition to infant mortality rates (as proxies for need), the independent variables utilized include demographic and political culture measures that may describe and define the policy space in which AFDC and other policies are formulated and executed. These variables are the percent black of the state's population (blkpop) and the measure of racial animus (animus). Racial animus is an index of the degree of (primarily) anti-black racial hostility in a state's past that combines the extremes of seven policy expressions of racialized political culture discussed in the previous chapter: whether a state enacted any segregation laws, whether a state requires preclearance for any counties or the entire state under VRA 1965, the presence of more than 3 of the 5 types of segregation laws in 1950 described by Konvitz (1951), whether anti-miscegenation laws named blacks first, considered interracial children to be illegitimate and carried penalties of 3 or more years in jail for violation based on Browning (1951), and if the state had anti-miscegenation laws in place for 50 years or more.

I include Hero & Tolbert's (1996) state culture measure of white homogeneous (i.e., few white ethnics or nonwhites) as another proxy for the policy space around maternal and child health policy. Hero & Tolbert, using 1980 Census data, find white homogeneous states associated with higher black infant mortality rates. The authors also suggest that their homogeneous measure of state culture is effectively synonymous with Elazar's moralistic state culture. This newer measure will thus be used in analysis (see Table 7.1 in Chapter 7 for a look at how Elazar's measure performs using state infant mortality rates).

Given the historically negative construction of black citizens and their perceived connection to cash payment public assistance, both of these measures of political culture (racial animus and state racial demographics) have very likely shaped the policy space in which states designed aspects of the federal AFDC program under their discretion (such as cash payment

levels). Other conventional political measures used are the number of times states chose the more conservative candidate in presidential elections from 1952 to 2008 (conserva1), and Republican state governors (repguv2) since 1950. The remaining variables are the state poverty rate (pover) and state GDP in 2011 dollars (loggdp). To test  $H_{18}$ , which hypothesized lower AFDC payments from the 1960s, a variable for the post-1960s years (post60adc) was also used. The basic equation is as follows:

$$\text{ADCfam98}_{ij} = a + \text{imr}_{ij} + \text{blkpop}_{ij} + \text{animus}_{ij} + \text{pover}_{ij} + \text{conserva1}_{ij} + \text{repguv2}_{ij} + \text{herohomog}_{ij} + \text{loggdp}_{ij} + \text{post60adc}_{ij} + e$$

### *Results of Model 2 (Average Monthly AFDC Payments per Family)*

Tables 6.5 to 6.7 show the output of the regression models of AFDC payments to families<sup>43</sup>, beginning with state infant mortality rates as a key predictor. Confirming  $H_{17}$ , a higher state infant mortality rate is associated with an increase in AFDC payments. The size of a state's black population, meanwhile, is a statistically significant predictor of lower payments.

Racial animus, as anticipated by  $H_{19}$ , is both significant ( $p > .001$ ) and robust, with an increase in

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<sup>43</sup> A correlation matrix of the predictor variables for these models was examined to address concerns of possible high correlation between multiple predictor variables (multicollinearity). Correlation is measured on a scale of 1 to -1, with zero denoting no correlation, 1 high positive correlation and -1 high negative correlation. The only variables that were highly correlated (correlation of 0.7 or higher) were White IMR and State GDP (.7864), and Black IMR and State GDP (.802). Since GDP, as a measure of income, could not be dropped from the analysis due to the importance of income for predicting socioeconomic phenomena, no corrective action was taken. For more correlations, see Appendix III.

animus associated with a sharp reduction in payments. Two of the measures of political culture—state conservatism based on voting in presidential elections and white racial homogeneity—are also associated with lower AFDC payments, providing support for  $H_{20}$ . The same holds for state GDP, with higher GDP associated with lower payments, and poverty rates. The post-1960s period is also significant but associated with much higher payments, contrary to the expectations of  $H_{18}$ .

**Table 6.5 Model 2: Predictors of AFDC Payments to Families (State Infant Mortality Rate)**

Variables	Coefficient	Standard Error	Significance
State IMR	3.098971	0.3139066	***
Black pop.	-4.296019	1.572368	**
Racial animus	-34.19533	8.466785	***
Poverty rates	-5.504622	0.6516586	***
State conservatism	-18.95615	5.186936	***
GOP governors	-4.372735	4.662872	NS
White ethnic homogeneity	-80.12644	29.01221	**
State GDP	-87.57843	3.43477	***
Post-1960 AFDC payments	131.2377	8.63117	***

N=2273; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .4869

When white infant mortality rates are substituted for the state IMR, the results are largely the same, with the exception of percent black of the population and white racial homogeneity, both of which are no longer statistically significant.

**Table 6.6 Model 2: Predictors of AFDC Payments to Families (White Infant Mortality Rate)**

Variables	Coefficient	Standard Error	Significance
White IMR	15.85484	0.7094735	***
Black pop.	-1.147603	1.460789	NS
Racial animus	-45.22162	7.846859	***
Poverty rates	-6.932044	0.6053498	***
State conservatism	-13.5575	4.803562	**
GOP governors	-6.051473	4.310535	NS
White ethnic homogeneity	-28.92678	26.95029	NS
State GDP	-31.19884	4.27934	***
Post-1960 AFDC payments	132.3706	7.960873	***

N=2273; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .6227

When the black infant mortality rate is used, the regression results are essentially identical to those of the first iteration involving the state IMR, with the size of the black population and white racial homogeneity once again significant and associated with lower AFDC payments.

**Table 6.7 Model 2: Predictors of AFDC Payments to Families (Black Infant Mortality Rate)**

Variables	Coefficient	Standard Error	Significance
Black IMR	7.858026	0.4331053	***
Black pop.	-6.079214	1.567187	***
Racial animus	-40.25383	8.799431	***
Poverty rates	-5.208991	0.6772696	***
State conservatism	-15.75706	5.653216	**
GOP governors	-0.32921	5.020357	NS
White ethnic homogeneity	-66.18951	32.11438	*
State GDP	-47.78179	4.604518	***
Post-1960 AFDC payments	158.5225	9.288191	***

N=1565; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .6878

Taken together, these variations of Model 2 provide strong evidence in support of several of the hypotheses concerning AFDC payments presented in Chapter 4. Specifically,  $H_{17}$ , which predicted higher payments as infant mortality rates increase appears to be strongly supported.  $H_{19}$  and  $H_{20}$ , which predicted lower payments in states with more segregation laws in the past and in conservative states, are also supported by the regression results. However,  $H_{18}$ , which anticipated lower payments based on black population size post-1960 and  $H_{21}$ , which predicted the same when Republican governors are in office, failed to reach significance. Ultimately, Model 2 is indicative that conventional and racialized political culture, as expected, may exert a powerful influence over how policies are designed and implemented.

### **AFDC Versus Medicaid: Policy Design and Negative Social Construction in the Policy Space at Work?**

The table below shows a side-by-side comparison of another federal program for the indigent, Medicaid (payments per enrollee) with ADFC. Similar to AFDC, states have a degree of discretion in setting eligibility requirements for this federal partnership program. Payments for Medicaid, however, are primarily made directly to vendors for services, rather than as cash payments to individuals or families. Prior research also suggests that Americans are more willing to support payment for medical services for the indigent than other forms of public assistance (Cook and Barrett, 1992, Holahan et al., 1993; Schlesinger and Lee, 1993). Lastly, the association between race and poverty in the United States is a powerful one for historical reasons. Nevertheless, the connection of Medicaid to black race (and the negative social construction entailed) is much weaker than with the now defunct AFDC program. Today,



Medicaid is considered as much a “middle-class” entitlement (i.e., inclusive of white recipients) as a program primarily serving the (disproportionately black) poor (Weiner and Stevenson, 1998; Grogan and Patashnik, 2003).

**Table 6.8 Side-by-Side Comparison of Medicaid and AFDC Using Black IMR**

Variables	Medicaid (Coeff)	Medicaid (Significance)	AFDC (Coeff)	AFDC (Significance)
<b>Black IMR</b>	-.081599	***	8.529735	***
<b>Black pop.</b>	.015747	*	2.475539	NS
<b>Racial animus</b>	.0290934	NS	-46.08069	***
<b>Poverty rates</b>	-.0521349	***	-11.01454	***
<b>State conservatism</b>	.0031159	NS	-16.09107	**
<b>GOP governors</b>	.0610795	NS	-7.165027	NS
<b>White ethnic homogeneity</b>	.4742479	***	16.47089	NS
<b>State GDP</b>	.5930471	***	-34.71077	***

\*p>.05, \*\*p>.01, \*\*\*p>.001; (AFDC) N=1565; Overall R<sup>2</sup>: .6694 (Medicaid) N=1405; Overall R<sup>2</sup>: .4542

Post-1960 variable from earlier AFDC model omitted for comparison.

The difference in how the factors analyzed impact these policies likely owes to the differing intent of the policies themselves (i.e., health care versus cash assistance). However, several points are worth noting. The level of racial animus strongly impacts AFDC. But for the more universal program, Medicaid, racial animus is not statistically significant, suggesting this racial factor may play less of a role in how Medicaid policy was shaped by the states. The same can be said for state conservatism, which is not significant for Medicaid but is (and is negative) for AFDC. At the same time, white racial homogeneity is linked with increased Medicaid spending but is not significant for spending (or payments) under AFDC. Lastly, state GDP, which is strongly associated with lower AFDC payments, has the opposite effect for Medicaid.

Since federal reimbursement of state money spent is an essential component of both programs, this may point to telling differences in the policy space in which both policies were designed and how each was consequently viewed by the states. This finding has broad implications for future policy design, as it suggests that state political culture, including an intensive history of past racial segregation, result in differential policy choices by political actors based on who the perceived target group of the policy.

### **Infant Mortality Rates and Political Culture**

In this third model presented, I return to infant mortality rates to incorporate the political culture variables utilized in Model 2, which predicted variation in AFDC payments. Other scholars have used political factors to predict infant mortality rates (LaVeist, 1993; Bird and Bauman, 1995; Hero and Tolbert, 1996). The rationale for the inclusion of such factors in the current research is that these measures of political culture form the policy space in which the phenomenon of infant mortality and efforts to address it take place. They thus represent an indirect but potentially vital vector for understanding why states differ in their infant mortality rates.

The basic regression model employed is:

$$IMR_{ij} = a + ablaw_{ij} + post96_{ij} + logmatch08_{ij} + adcfam98_{ij} + pregeligbl_{ij} + toughoncrime_{ij} + herohomog_{ij} + blkpop_{ij} + logmedic70_{ij} + logincom_{ij} + blkedbs_{ij} + abort_{ij} + pover_{ij} + animus_{ij} + conserva1_{ij} + repguv2_{ij} + herohomog_{ij} + e$$

*Results (State IMR)*

As shown below, compared to the earlier model of state infant mortality rates, the addition of the political culture variables has resulted in Medicaid payments per enrollee no longer being statistically significant. Both the measure of racial animus and white ethno-racial homogeneity in a state are significant. But unexpectedly, the measure of racial animus used is associated with a lower state infant mortality rate. The same outcome holds for white ethno-racial homogeneity, in direct contrast to Hero and Tolbert’s findings. In their 1996 analysis, the authors found that the best (i.e., the lowest) black infant mortality rates were in the most ethnically and racially diverse states. However, in the current analysis, ethno-racial diversity is strongly associated ( $p > .001$ ) with a substantial increase in the state IMR (data not shown). At the  $p > .1$  level, Medicaid income eligibility for pregnant women and Medicaid payments are linked to lower infant mortality.

**Table 6.9 Model 3: Political Culture as Predictor of State Infant Mortality Rates**

Variables	Coefficient	Standard Error	Significance
Restricted public funding of abortion	-0.6354892	0.2149496	**
Post-PRWORA	0.302047	0.1101315	**
Maternal and child health spending	0.0345377	0.0668783	NS
AFDC payments	0.0004552	0.0004844	NS
Medicaid income eligibility for pregnant women	-0.0047009	0.002693	NS

State is tough on crime	0.0396866	0.0764449	NS
Black population	0.1359667	0.0157578	***
Medicaid payments	-0.1280654	0.0752808	NS
Per capita income	-5.426822	0.2180165	***
College ed attainment for black females	-0.025249	0.0173608	NS
Abortion rate	-0.0436156	0.0069776	***
Poverty rate	-0.039581	0.0243207	NS
Racial animus	-0.1761431	0.0755214	*
White ethnic homogeneity	-0.6955752	0.2343174	**
State conservatism	0.0257766	0.0431904	NS
GOP governors	-0.0169939	0.0716331	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8601

### *Results (White IMR)*

When political culture is a predictor of the white IMR, two changes from the previous model emerge. First, Medicaid income eligibility for pregnant women is no longer statistically significant, nor is the size of the black population. One of the political culture variables, white ethno-racial homogeneity, is significant, and is associated with an increase in the white IMR. At the more relaxed p>.1 level, the post-1996 PRWORA period and AFDC payments are also associated with an increase in the white IMR.

**Table 6.10 Model 3: Political Culture as Predictor of White Infant Mortality Rates**

Variables	Coefficient	Standard Error	Significance
Restricted public funding of abortion	-0.7786508	0.1722548	***
Post-PRWORA	0.1760599	0.1020618	NS
Maternal and child health spending	0.0287887	0.0564235	NS
AFDC payments	0.0007452	0.0004329	*
Medicaid income eligibility for pregnant women	-0.0033783	0.0021333	NS
State is tough on	0.0603886	0.0659095	NS

crime			
Black population	0.0100991	0.0126067	NS
Medicaid payments	0.0145838	0.0695964	NS
Per capita income	-5.281086	0.1980441	***
College ed attainment for black females	-0.0735209	0.014645	***
Abortion rate	-0.0374104	0.0062857	***
Poverty rate	-0.0888305	0.020847	***
Racial animus	-0.0159972	0.0612469	NS
White ethnic homogeneity	-0.4834979	0.1872015	**
State conservatism	0.0507993	0.0342969	NS
GOP governors	-0.0221127	0.0664895	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8678

### *Results (Black IMR)*

For the black IMR variant, maternal and child health service spending is no longer significant compared to the regression results of Model 1, but having a “tough on crime” stance is, and is associated with a higher black IMR. The racial animus measure is also statistically significant, but as with the state infant mortality rate, the direction points to a lower rather than higher rate. When p>.1, Medicaid payments per enrollee are tied to a lower black IMR, with the rate is higher with black female educational attainment (college).

**Table 6.11 Model 3: Political Culture as Predictor of Black Infant Mortality Rates**

Variables	Coefficient	Standard Error	Significance
Restricted public funding of abortion	0.2464085	0.6795981	NS
Post-PRWORA	-0.2454931	0.3120331	NS
Maternal and child health spending	-0.2125677	0.1869121	NS
AFDC payments	0.0030738	0.0014442	*
Medicaid income eligibility for pregnant women	-0.0008809	0.0080255	NS
State is tough on crime	0.521085	0.2171391	*

Black population	0.1027942	0.044425	*
Medicaid payments	-0.3963601	0.2050796	NS
Per capita income	-7.369574	0.7624722	***
College ed attainment for black females	0.2017766	0.1159779	NS
Abortion rate	-0.0290926	0.0208967	NS
Poverty rate	0.014228	0.0734478	NS
Racial animus	-0.6013457	0.1993323	**
White ethnic homogeneity	-0.5621375	0.7567244	NS
State conservatism	0.0151903	0.1288967	NS
GOP governors	-0.0365255	0.1969546	NS

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .6043

### *Results (Racial Gap)*

Upon re-analysis with political culture variables, maternal and child health spending is no longer a significant predictor of the racial gap in rates, nor are payments to families under AFDC or Medicaid payments per enrollee. Conversely, a state having a “tough on crime” stance now is significant, leading to a wider gap. Black female educational attainment (college) too is significant, and consistent with the literature is associated with a larger racial gap. Of the political culture variables, only racial animus is significant, but it is associated with a smaller black-white IMR gap. At p>.1, the racial gap is also smaller when Medicaid payments increase.

**Table 6.12 Model 3: Political Culture as Predictor of the Racial Gap**

Variables	Coefficient	Standard Error	Significance
Restricted public funding of abortion	0.7395216	0.631282	NS
Post-PRWORA	-0.3389611	0.3080175	NS
Maternal and child health spending	-0.2324819	0.1772426	NS
AFDC payments	0.0014453	0.0014096	NS
Medicaid income eligibility for pregnant women	0.0071949	0.0073946	NS
State is tough on	0.5329252	0.2081288	*

crime			
Black population	0.0945326	0.0411057	*
Medicaid payments	-0.3603743	0.2024618	NS
Per capita income	-2.350397	0.745485	**
College ed attainment for black females	0.2426238	0.1114514	*
Abortion rate	0.0004496	0.0203665	NS
Poverty rate	0.0332889	0.0700674	NS
Racial animus	-0.5887285	0.1858379	**
White ethnic homogeneity	-0.5642617	0.6999286	NS
State conservatism	0.0215869	0.1189873	NS
GOP governors	-0.0000347	0.1946572	NS

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .1616

While no variable has the sheer impact of per capita income in reducing infant mortality, Model 3 strongly suggests that political culture plays an important explanatory role in the context surrounding infant mortality and the racial gap in rates. In addition to activating the significance of the “tough on crime” measure in the anticipated direction for black infant mortality, the consistently negative effect of AFDC for the black and white IMRs implies that this policy may have critical flaws in design or implementation.

### *Hypotheses Supported*

After analysis of Model 3, Table 6.13 below lists the hypotheses that were supported in multivariate analysis. For reference, the following hypotheses were supported:

(For white infant mortality rates)

*H<sub>2</sub>: Infant mortality is higher in states that tend to vote for conservative candidates in presidential elections.*

(For state infant mortality rates)

*H<sub>5</sub>: Moralistic states should have the best outcomes in black and white infant mortality, with infant mortality expected to deteriorate in individualistic state cultures, presumably reflecting the relatively hands-off approach to governance and emphasis on private market concerns. Similarly, traditionalistic states, encompassing most of the former slave states, should have poor outcomes, reflecting social conservatism and anti-black affect.*

(For state and white infant mortality rates)

*H<sub>11</sub>: Higher Medicaid income eligibility for pregnant women should result in lower infant mortality rates and a smaller racial gap.*

(For black infant mortality rates)

*H<sub>12</sub>: Black infant mortality is higher in states with higher incarceration rates and percentage of the black population disenfranchised.*

*H<sub>13</sub>: Infant mortality rates increase with more severe disenfranchisement laws in a state.*

*H<sub>14</sub>: The rise in incarceration rates, as an external stressor and proxy for disadvantage, is associated with growth in the gap in black-white infant mortality rates. (Also supported for racial gap)*

(For state infant mortality rates)

*H<sub>15</sub>: Infant mortality rates increase in the years immediately following the passage of PRWORA.*

(For AFDC)

*H<sub>17</sub>: High infant mortality rates, as a proxy for need, are associated with higher AFDC payments.*

*However,*

*H<sub>19</sub>: Consistent with Corollary 6a, AFDC payments will be lower in states that had more numerous or more punitive segregation laws.*



$H_{20}$ : The more conservative a state, the lower the AFDC payments.

**Table 6.13: Hypotheses Supported**

H1-H9	State IMR	White IMR	Black IMR	Gap	AFDC
H <sub>1</sub>					
H <sub>2</sub>		✓			
H <sub>3</sub>					
H <sub>4</sub>	✓				
H <sub>5</sub>					
H <sub>6</sub>					
H <sub>7</sub>					
H <sub>8</sub>					
H <sub>9</sub>					
H <sub>10</sub>					

H11-H21	State IMR	White IMR	Black IMR	Gap	AFDC
H <sub>11</sub>	✓	✓			
H <sub>12</sub>			✓		
H <sub>13</sub>			✓		
H <sub>14</sub>			✓	✓	
H <sub>15</sub>	✓				
H <sub>16</sub>					✓*
H <sub>17</sub>					✓*
H <sub>18</sub>					✓*
H <sub>19</sub>					✓*
H <sub>20</sub>					✓*
H <sub>21</sub>					✓*

\*Supported for state, white and black IMR as independent variables in separate regressions.

### *Two-Stage Regression Model*

The final model for analysis is a two-stage regression model. As mentioned previously, this methodological approach is an attempt to address a criticism lodged at earlier iterations of this research, namely the need to link indirect factors, such as political culture, with actual outcomes (in this case, infant mortality), using policy as an assumed vector. In this model, payments to families under Aid to Families with Dependent Children and Medicaid payments

per enrollee will be used as instrumented variables in separate regressions to estimate and compare the predicted impact of these policies on infant mortality rates, after accounting for factors believed to directly impact the policies themselves. For the AFDC model, the following two equations will be interacted.

$$IMR_{ij} = a + ablaw_{ij} + post96_{ij} + logmatch08_{ij} + pregeligbl_{ij} + toughoncrime_{ij} + herohomog_{ij} + blkpop_{ij} + logmedic70_{ij} + logincom_{ij} + blkedbs_{ij} + abort_{ij} + pover_{ij} + animus_{ij} + e$$

$$ADCfam98_{ij} = a + blkpop_{ij} + animus_{ij} + pover_{ij} + conserva1_{ij} + repguv2_{ij} + herohomog_{ij} + loggdp_{ij} + post60adc_{ij} + e$$

In the infant mortality equation adcfam98 the instrumented variable in the second equation, has been removed, together with political culture variables herohomog, conserva1 and repguv2, which are thought to more directly affect policy than infant mortality rates. These changes are also necessary in order to properly differentiate the equations for two-stage regression analysis.

For the Medicaid model, the same rationale stated above applies, with the following equations interacted:

$$IMR_{ij} = a + ablaw_{ij} + post96_{ij} + logmatch08_{ij} + + adcfam98_{ij} + pregeligbl_{ij} + toughoncrime_{ij} + herohomog_{ij} + blkpop_{ij} + logincom_{ij} + blkedbs_{ij} + abort_{ij} + pover_{ij} + animus_{ij} + e$$

$$\log\text{medic70}_{ij} = a + \text{blkpop}_{ij} + \text{animus}_{ij} + \text{pover}_{ij} + \text{conserva1}_{ij} + \text{repguv2}_{ij} + \text{hero homog}_{ij} + \log\text{gdp}_{ij} + \text{post60adc}_{ij} + e$$

### *Results (State IMR)*

For the AFDC model in Table 6.14, consistent with the literature, the state abortion rate is strongly associated with a lower state infant mortality, while the state IMR rises in step with the size of the state’s black population. In line with expectations, more generous Medicaid income eligibility for pregnant women is associated with a lower state IMR. The most dominant factor by far, however, is state per income (natural log used), with a unit increase in income associated with a reduction of 4 in the state IMR. At  $p > .1$ , AFDC payments becomes a significant predictor of higher state infant mortality rates.

In the Medicaid variant of the model, state infant mortality rates are impacted by three factors—the size of the black population, per capita income and the period after enactment of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), which pushed public assistance into a much more stringent direction. Consistent with previous results, while income is associated with a very robust decline in the state IMR (coefficient of approximately - 4.2), black population size and the post PRWORA period are linked to a higher rate. At the more relaxed  $p > .1$  level of significance, both racial animus and the “tough on crime” measure are also significant, although both factors, contrary to expectations, are associated with a lower state IMR.

**Table 6.14 Estimates of State Infant Mortality Using Two-Stage Regression**

Predictors	Coefficient	Standard Error	Significance
AFDC payments	0.0104121	0.0058963	NS
Abortion rates	-0.0394784	0.0080589	***
Restricted public funding of abortion	0.1199663	0.5461059	NS
Black pop.	0.1791224	0.0189619	***
Medicaid income eligibility	-0.0071664	0.0032164	*
Medicaid payments	0.0512428	0.1432788	NS
Per capita income	-4.062129	0.8660946	***
College ed attainment for black females	-0.0398071	0.0257421	NS
Racial animus	0.2211856	0.2720064	NS
Tough on crime	-0.124876	0.1273391	NS
Maternal and child health spending	-0.2540982	0.1917899	NS
End of welfare	-0.0228539	0.2271247	NS
Poverty rates	0.137455	0.1047779	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .7860

Predictors	Coefficient	Standard Error	Significance
Medicaid payments	-0.8949426	0.7224373	NS
Abortion rates	-0.0295486	0.0159095	NS
Restricted public funding of abortion	-0.3781998	0.5394333	NS
Black pop.	0.1713933	0.0344203	***
Medicaid income eligibility	-0.0050793	0.0059877	NS
AFDC payments	-0.0005634	0.0009193	NS
Per capita income	-4.179307	1.422969	**
College ed attainment for black females	0.0259362	0.0242001	NS
Racial animus	-0.2726987	0.1607535	NS
Tough on crime	-0.1971315	0.1157605	NS
Maternal and child health spending	-0.0943497	0.1176183	NS
End of welfare	0.4804788	0.1869198	**
Poverty rates	0.0205317	0.0325377	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8207

*Results (White IMR)*

For the white infant mortality rate (see Table 6.15), the same factors as for the previous state IMR are statistically significant, with the addition of black female educational attainment (college). Understood as a proxy for female educational attainment in general, this factor is associated with a reduction in the white infant mortality rate. Interestingly, the size of the black population is also a significant predictor of higher white infant mortality.

In the Medicaid model, white infant mortality rates are lower when the state abortion level rises, a relationship that is repeated with higher income and black female educational attainment (college). As with the state IMR, when the Medicaid payments per enrollee measure is used, the white infant mortality rate increases with in the post-PRWORA period. Higher poverty, however, is associated with a decline in the white IMR.

**Table 6.15 Estimates of White Infant Mortality Using Two-Stage Regression**

Predictors	Coefficient	Standard Error	Significance
AFDC payments	0.0056915	0.004754	NS
Abortion rates	-0.033959	0.0064054	***
Restricted public funding of abortion	-0.3761778	0.418344	NS
Black pop.	0.0322263	0.0119329	**
Medicaid income eligibility	-0.0057092	0.0020241	**
Medicaid payments	0.0814338	0.1105835	NS
Per capita income	-4.557477	0.7086743	***
College ed attainment for black females	-0.084082	0.0189265	***
Racial animus	0.1998619	0.2143772	NS
Tough on crime	0.0113477	0.0904811	NS
Maternal and child health spending	-0.1217229	0.154546	NS
End of welfare	0.0169815	0.1850004	NS
Poverty rates	0.0005225	0.0893091	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8372

Predictors	Coefficient	Standard Error	Significance
Medicaid payments	-0.8269012	0.5229668	NS
Abortion rates	-0.0248457	0.0108093	*
Restricted public funding of abortion	-0.5270944	0.2778693	NS
Black pop.	0.016416	0.0176231	NS
Medicaid income eligibility	-0.0042737	0.0027464	NS
AFDC payments	0.000133	0.0006476	NS
Per capita income	-3.652932	1.049912	***
College ed attainment for black females	-0.063589	0.0179068	***
Racial animus	0.010169	0.0798808	NS
Tough on crime	-0.0094903	0.0939923	NS
Maternal and child health spending	-0.0822584	0.0901549	NS
End of welfare	0.3877908	0.1592794	*
Poverty rates	-0.0807488	0.0257476	**

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8517

### Results (Black IMR)

In predictions of the black IMR using AFDC as the instrumented variable (Table 6.16), only the size of the black population, black female educational attainment (college) and income are statistically, with the latter alone strongly associated (p>.001) with a lower infant mortality rate. At p>.1, AFDC and maternal and child health service spending are also significant, with the former associated with higher and the latter with lower black infant mortality.

In the Medicaid model, the only statistically significant predictor of black infant mortality rates is the measure of racial animus. But as seen with the black IMR in Model 3, an increase on this scale of racial hostility is associated with a lower rate.

**Table 6.16 Estimates of Black Infant Mortality Using Two-Stage Regression**

Predictors	Coefficient	Standard Error	Significance
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AFDC payments	0.0134293	0.007601	NS
Abortion rates	-0.0274313	0.0211272	NS
Restricted public funding of abortion	1.244639	1.00906	NS
Black pop.	0.1356068	0.0389873	***
Medicaid income eligibility	-0.0062809	0.0076717	NS
Medicaid payments	-0.2613728	0.2353612	NS
Per capita income	-6.285704	1.118305	***
College ed attainment for black females	0.2927686	0.1352907	*
Racial animus	-0.1816896	0.3744766	NS
Tough on crime	0.3776052	0.2510946	NS
Maternal and child health spending	-0.5120294	0.292627	NS
End of welfare	0.0134293	0.007601	NS
Poverty rates	-0.0274313	0.0211272	NS

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .5384

Predictors	Coefficient	Standard Error	Significance
Medicaid payments	-1.585118	1.738996	NS
Abortion rates	0.010926	0.0439117	NS
Restricted public funding of abortion	0.6002547	0.8979505	NS
Black pop.	0.0964748	0.0547816	NS
Medicaid income eligibility	0.0030795	0.0117193	NS
AFDC payments	0.0028445	0.0020676	NS
Per capita income	-4.924721	3.774902	NS
College ed attainment for black females	0.2040648	0.147367	NS
Racial animus	-0.5558383	0.2700027	*
Tough on crime	0.354949	0.2969302	NS
Maternal and child health spending	-0.4522724	0.3262947	NS
End of welfare	-0.1283472	0.4200291	NS
Poverty rates	0.1234249	0.0881792	NS

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .5822

### *Results (Racial Gap)*

When AFDC is used (Table 6.17), the only two factors that are significant, size of the black population and black female educational attainment (college) have effects consistent with the literature. That is, both predictors are associated with a wider racial gap in infant mortality rates. When the alpha level is relaxed to  $p>.1$ , both more restricted use of public funds for abortion and the “tough on crime” measure are associated with a wider racial gap, with the gap shrinking in step with more maternal and child health spending.

When the instrumented variable is Medicaid, none of the variables are significant predictors of the racial gap at the  $p>.05$  level of significance. If relaxed to  $p>.1$ , black female educational attainment (college), racial animus and poverty are all significant. But here again, while education attainment and poverty are associated with larger gap, the racial gap is smaller when racial animus is higher.

**Table 6.17 Estimates of the Racial Gap Using Two-Stage Regression**

Predictors	Coefficient	Standard Error	Significance
AFDC payments	0.0111547	0.0073183	NS
Abortion rates	0.0020613	0.0206686	NS
Restricted public funding of abortion	1.679272	0.9490053	NS
Black pop.	0.1254722	0.0362994	***
Medicaid income eligibility	0.0019311	0.0071574	NS
Medicaid payments	-0.2374416	0.2295545	NS
Per capita income	-1.299811	1.10411	NS
College ed attainment for black females	0.3214582	0.1279627	*
Racial animus	-0.190684	0.3581567	NS
Tough on crime	0.4026373	0.2392614	NS
Maternal and child health spending	-0.5128103	0.2789164	NS
End of welfare	-0.5703163	0.3507337	NS
Poverty rates	0.1832881	0.1294832	NS

N=836; \* $p>.05$ , \*\* $p>.01$ , \*\*\* $p>.001$ ; Overall  $R^2$ : .0873



Predictors	Coefficient	Standard Error	Significance
Medicaid payments	-1.509538	1.768988	NS
Abortion rates	0.0489971	0.0449367	NS
Restricted public funding of abortion	1.221017	0.9360651	NS
Black pop.	0.080228	0.057046	NS
Medicaid income eligibility	0.0119088	0.0122165	NS
AFDC payments	0.0013302	0.0021019	NS
Per capita income	-0.0955232	3.829884	NS
College ed attainment for black females	0.2739902	0.1488624	NS
Racial animus	-0.5273128	0.2805944	NS
Tough on crime	0.3315301	0.2967376	NS
Maternal and child health spending	-0.4906004	0.3313999	NS
End of welfare	-0.2802059	0.4192918	NS
Poverty rates	0.1660977	0.0884661	NS

N=836; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .1156

Taken together, the iterations of Model 4 imply that political factors matter. The model also reinforces a key finding of Models 1 and 3 – the differential impact that the same seemingly universal policies on black and white infant mortality.

## Conclusion

In this analytical chapter, I attempted to empirically analyze the possible relationship between a vital public health indicator, infant mortality rates, and a variety of demographic, socioeconomic and political factors. Several of the measures used explicitly attempt to capture racialized aspects of state political culture, rarely considered in empirical treatments of U.S. health outcomes and health policy. In that sense, this largely exploratory analysis was a first step in an ongoing attempt to unravel the persistent racial gap in U.S. infant mortality rates and other health outcomes. For this research project, the approach taken was to incorporate a frequently omitted concept—the possible legacy of intense and legalized discrimination in the recent past—

as part of this explanatory narrative. In the final and concluding chapter, I discuss some of the implications of this analysis, the limitations of these findings, and directions for future research. Several policy recommendations will also be proffered based on what the analysis has shown thus far.

## Chapter 7: Conclusion

In this final chapter, I begin with a brief discussion of some of the empirical results from Chapters 5 and 6. I then conclude with an examination of the contribution of this research to the fields of race and ethnicity, health policy and the theory of the social construction of target groups. The implications and limitations of this project, directions for future research, and policy recommendations are also discussed.

### *Discussion*

The empirical analyses of the two preceding chapters confirm several prior findings from the literature concerning state variation in infant mortality rates. At the same time, the analyses also revealed a number of surprising relationships to consider going forward.

First, while not true with difference of means tests, the time-series regression models in this research update and confirm the county-level findings of Grossman and Jacobowitz (1981), who found an association between higher abortion rates and lower infant mortality rates. Similarly, the regression analysis provided additional evidence of the counterintuitive relationship between black female educational attainment and the black-white racial gap in infant mortality. As previously shown by Colen et al. (2006), Geronimus (1996, 1997), and others, this research suggests that college educational attainment is associated with a wider racial gap in infant mortality. Finally, this research updates and confirms Copeland and Meier's (1987) finding regarding the small but statistically significant impact of Medicaid in reducing the black

infant mortality rate. In addition, the current research suggests that the racial gap is also reduced as Medicaid payments increase.

I now turn to several unexpected findings revealed by the analysis. Poverty, as measured by percent of the state under the federal poverty level from 1950 to 2000 Census data, has a significant impact only on white infant mortality rates. While that alone is surprising, the larger shock is that it is actually associated with a *lower* white IMR. According to data from the Kaiser Family Foundation only 13% of U.S. whites lived in poverty in 2011, compared to 35% of blacks, 33% of Hispanics and 23% of individuals from other ethno-racial groups.<sup>44</sup> It is somewhat intuitive then that living in poverty represents a much greater change in socioeconomic circumstances for whites, and thus carries greater consequences for infant mortality and other health outcomes for this group. The associated reduction in white infant mortality with higher poverty may suggest more robust responsiveness to the health needs of this population when poverty is high, or perhaps better access to or a greater willingness to use food stamps, Medicaid and other assistance programs that support better health. This unexpected relationship, though, is one that demands greater scrutiny in future research.

Several of the unanticipated results, however, surround the variables of interest in the analysis, beginning with restricted public funding of abortion. As offered in *H<sub>9</sub>*, I hypothesized that infant mortality rates would suffer in states that restrict the use of public funds for abortion to cases in which the life of the mother is at stake, or cases of rape or incest. The underlying assumption follows the logic offered by Grossman and Jacobowitz (1981), i.e., that freer access to abortion results in fewer unwanted pregnancies, translating into a reduction in infant mortality.

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<sup>44</sup> See statehealthfacts.org (<http://www.statehealthfacts.org/comparebar.jsp?ind=14&cat=1>). Accessed October 21, 2012.

The regression results showed otherwise, with the state and white infant mortality rates both lower in the presence of more restrictive abortion funding. Elucidating the mechanism at work in this mystery (perhaps by examining this relationship in individual states) is beyond the scope of this research, but this point is another that deserves closer examination.

Two of the political culture measures used, racial animus and Hero and Tolbert's (1996) measure of white ethno-racial homogeneity, offer equally surprising results. Many of the hypotheses advanced in Chapter 4 revolved around measures of past racial hostility in the states, such as the number of segregation laws enacted and the design of anti-miscegenation laws. One of the core assumptions of this research is that black infant mortality rates are likely exacerbated by the lingering effects of historically recent racial animus in the states. The impact is certainly there for state and black infant mortality rates and the racial gap, but in the direction of *lower* rates and a *smaller* gap. LaVeist (1993) has found black political empowerment (more black city councilors, mayors, etc.) to be associated with lower infant mortality rates. While only speculation at this point, this seeming paradox might reflect growing black political power in states that scored high (above 3 on a 7-point scale) for racial animus. Many of these same states, most of which are in the traditional South, are also home to larger-than-average sized black populations. Alternatively, the presence of high poverty rates in high animus states may attract more programmatic attention to poverty alleviation and the health of the impoverished from the federal government, resulting in better-than-expected outcomes for black infant mortality.

The second political culture variable, white racial-ethnic homogeneity as developed by Hero and Tolbert (1996), was used as a more up-to-date alternative to Elazar's (1966) older and oft-criticized typology of state cultures. Following Hero and Tolbert's suggestion that white homogeneous states were essentially synonymous with Elazar's moralistic state cultures, the

latter was not used in the formal analysis. However, the results of this more modern measure were mixed, contributing to lower state infant mortality but associated with an increase in the white IMR.  $H_8$ , which predicted a lower black IMR with increased racial diversity (and its inverse, a higher rate with less diversity), was not supported despite Hero and Tolbert's earlier claim that this was the case. The likely culprit behind this non-finding in the current research is the limited range of Hero and Tolbert's original data (i.e., 1980 Census data). This limitation, coupled with the decision to apply the authors' typology in a fixed manner across a broader range of data (1950 to 2008) may have led to the seemingly contradictory findings.

Finally, Aid to Families with Dependent Children (AFDC), as measured by average monthly payments to families, contrary to expectations, is associated with increased white and black infant mortality rates. One possible explanation for this is that AFDC has less of a direct connection to infant mortality and a greater one to general poverty than the author anticipated. This seems unlikely, though, considering the longstanding linkage of this program to (black) welfare mothers in political discourse attacking the program for breeding dependency. A more satisfying explanation is that increased AFDC payments proxy a rise in general hardship in the state and simple cost of living adjustments. As such, payments would have less to do with state welfare generosity (as was assumed for this research project) and more to do with macroeconomic conditions and other external factors driving payments upward.

### *Conceptual Hypotheses Revisited*

In Chapter 4, I posed three conceptual hypotheses that would guide the analysis in the succeeding chapters.

*1. Important political factors with seemingly no direct connection to health, such as partisanship and political culture, are associated with state variation in infant mortality rates.*

*2. Profoundly racist policies of the recent past, though legally dismantled, take a continuing toll on the health of Americans, most notably that of black Americans.*

*3. Political and policy action have the potential to reduce the relatively high U.S. infant mortality rate.*

The 21 operational hypotheses that followed all derived in some way from these three concepts. Upon analysis, Model 2, which used political culture to predict average monthly payments per family under Aid to Families with Dependent Children, and Models 1 and 3, which predicted infant mortality rates, the latter using political culture variables, provided support for a total of 10 of the 21 hypotheses forwarded. Following the two-stage regression, only **H<sub>11</sub>**, which predicted lower infant mortality rates and a smaller gap with more generous income eligibility for Medicaid for pregnant women, and **H<sub>15</sub>**, which hypothesized that infant mortality rates would rise in the years following PRWORA, were supported.

Taken together, the results of the analysis offer strong support for the impact on both actual health outcomes and policy outputs of political culture, as described in Conceptual Hypothesis 1, and policy as captured in Conceptual Hypothesis 3. Support for Conceptual

Hypothesis 2, however, was far less confirmatory. The results of the difference of means tests performed in Chapter 5 strongly suggested that racialized measures of political culture, such as the number and quality of anti-miscegenation laws and other past segregation policies, may have a profound impact not only on black infant mortality but on state and white infant mortality rates as well. But these relationships were not confirmed in the time-series regression analysis. As mentioned above, when racial animus emerged as significant in any of the models of infant mortality, the result was in the direction of lower, not higher, rates. By the same token, racial animus was shown in the time series to impact AFDC payments both powerfully and in the negative direction anticipated. The tentative conclusion to draw from this is that the relationship between past racial hostility and health is complex, and that it is less direct in its effects on this particular health metric than it is for how certain policies are shaped.

### *Contribution of the Research*

While still an exploratory research agenda, the findings of the current research project offer key scholarly contributions to the academic study of health and political science.

First, the research results contribute to the literature on race and ethnicity within political science by highlighting the differential impact that policies have on racial groups in the United States. The regression results suggest that so-called “tough on crime” laws that result in high levels of incarceration and disenfranchisement, for example, negatively impact black infant mortality, but have no discernable effect on the mortality rate for white infants in the time-series models (a lower white IMR is seen, however, in difference of means tests of incarceration variables). Conversely, white infant mortality appears to have suffered more with the



introduction of a more stringent, less generous public assistance policy in 1996 (PRWORA) than black infant mortality. Another contribution, this time to the study of political culture, is that this research offers some confirmation that the alternative to Elazar formulated by Hero and Tolbert (1996) has validity as a measure in its own right. With that said, the results of this research suggest less congruence between the authors' ethno-racial population-based measure of political culture and Elazar's measure than what Hero and Tolbert claim in their earlier study. To wit, Elazar's moralistic state measure, when substituted into Model 3, is associated across the board with a significant and substantial reduction in infant mortality and the racial gap (see Table 7.1), providing further support of Elazar's measure as well. The Hero and Tolbert measure of white ethno-racial homogeneity, which the authors suggest is virtually synonymous with Elazar's moralistic state cultures, is not statistically significant for reducing either the black infant mortality rate or the racial gap. The research also provides some confirmation of path dependency theory, since past racial animus (though in the opposite direction predicted) clearly has lingering effects on both modern-day health outcomes and on policy formation and execution.

**Table 7.1 Moralistic States and Infant Mortality (Model 3 for State IMR shown)**

<i>Variables</i>	<i>Coefficient</i>	<i>Standard Error</i>	<i>Significance</i>
<b>Restricted public funding of abortion</b>	-0.423767	0.219217	NS
<b>Post-PRWORA</b>	0.2898228	0.1095807	**
<b>Maternal and child health spending</b>	0.0768473	0.0664241	NS
<b>AFDC payments</b>	0.00061	0.0004808	NS
<b>Medicaid income eligibility for pregnant women</b>	-0.0064667	0.0025531	*
<b>State is tough on crime</b>	0.0002318	0.0766463	NS
<b>Black population</b>	0.1487982	0.0131812	***
<b>Medicaid</b>	-0.1447619	0.0746034	NS

<b>payments</b>			
<b>Per capita income</b>	-5.545152	0.2191685	***
<b>College ed attainment for black females</b>	0.0077136	0.0188503	NS
<b>Abortion rate</b>	-0.0382309	0.0067636	***
<b>Poverty rate</b>	-0.0413309	0.024074	NS
<b>Racial animus</b>	-0.3021247	0.0782399	***
<b>Elazar's Moralistic state culture</b>	-1.065565	0.2382719	***
<b>State conservatism</b>	0.0143929	0.041488	NS
<b>GOP governors</b>	-0.0306005	0.0714346	NS

N=1183; \*p>.05, \*\*p>.01, \*\*\*p>.001; Overall R<sup>2</sup>: .8639

This research also furthers the literature on the role of social and non-medical factors on health. No other factors examined have the sheer power of per capita income and GDP, both in terms of the level of significance (consistently  $p > .001$ ) and the coefficient (typically 4 or higher versus less than 1 for other variables). There was also confirmation of the counterintuitive and adverse effects of black female educational attainment. This provides additional support for the weathering hypothesis advanced by Geronimus, in which black women experience more negative health outcomes effectively due to internal aging linked to socioeconomic stress and racism. Finally, this research contributes to the theory of the social construction of target groups in two ways. First, I have added explicit corollaries to the theory based on the historically negative construction of black Americans as an undeserving group in order to better contextualize the theory to policy formation in the U.S. Second, the research results of Model 2, which predicted AFDC payments, highlights how past policies and negative social constructions may have led to the eventual termination of AFDC in 1996, to be replaced with a new, harsher policy that has clearly been detrimental to infant mortality rates virtually across the board (see Fig. 5.7).

## *Implications*

The current research project has four main implications. The first is that political culture, both conventional and racially sensitive measures of it highlighted in this research, has a discernable impact on policy outputs. While prior research has demonstrated a relationship between political culture and various social and economic policy choices by the states, this research project is one of the few to explicitly examine the role that racialized measures of political culture may play with respect to policy outcomes.

A second implication pertains to health policy. The current research suggests that policies such as public assistance and Medicaid have disparate impacts on different racial groups depending on how the policies are designed, and may not actually have the positive effects that the designers presumably intended. To give an example, AFDC payments appear to be associated with similarly adverse effects on both white and black infant mortality rates. Whether this is the result of macro-social or macroeconomic factors is unclear, but it is evident that something in the way the policy (and its successor, TANF) was designed or executed probably warrants closer examination. Similarly, white infant mortality rates seem to benefit from more generous income eligibility requirements for pregnant women seeking Medicaid, yet this effect is not apparent for black infant mortality in multivariate analysis.

The third main implication also relates to health policy and public policy. Specifically, certain elements of the policy space that often go formally unexamined, such as the racial makeup of a state and its past policy history, including its adherence to segregationist policies,

should be better incorporated in understanding the contemporary policy space when crafting policy.

Finally, the fourth implication involves assumptions regarding anti-black racism and the South. Because of the region's intense history of chattel slavery, racial segregation and social conservatism, the South has earned a reputation for racial hostility that continues to fuel assumptions in formal research about how southern states will behave, particularly in matters of race and ethnicity. Similar assumptions were at the heart of many of the hypotheses forwarded as part of this research. Yet however well deserved, this reputation may be misleading in unraveling racial health disparities, at least in the case of black infant mortality rates. In 2008, none of the nine states with a high actual or adjusted black infant mortality rate (above 15 per 1,000 live births) was in the Deep South. The same holds for other measures, such as the racial disparity in incarceration rates. While the disparity exists, nowhere among states like Alabama, Mississippi, Georgia and the Carolinas does that disparity (in 2005) rise above 5.5-to-1. These figures are far lower than Vermont and New Jersey, each of which has incarceration disparities of over 12-to-1. As it stands, these data suggest that the South may have done a great deal to confront its racially charged past, while many states outside of the region have done little to confront their own. In short, future analyses that incorporate assumptions about the performance of the modern South based on its past racial history may benefit from a closer examination of whether these assumptions are actually valid today.

### *Limitations*

The most serious limitations of this research project relate mainly to issues of data and measurement. As mentioned in Chapter 5, data availability was an issue for black infant mortality rates in states with low numbers of live births of black infants. The initial solution to rectify this issue was to manually calculate missing values based on raw vital statistics data, which frequently led to artificially inflated infant death figures for some states. While all state-years with fewer than 1,000 live births were eventually dropped for the formal analysis, the black IMR data are effectively incomplete for nearly a dozen states in a state-level analysis of infant mortality. While adjustments of this kind for statistical purposes are common with respect to examinations of black infant mortality, it should be emphasized nonetheless that accurate data for all states are not present in this empirical analysis of state variation in infant mortality rates.

On a similar note, the long period of this analysis (59 years from 1950 to 2008) presented challenges in the collection of certain past data, including racial breakdowns of incarceration data, data on Medicaid spending, GDP, female educational attainment rates, AFDC payments, and maternal and child health service spending. Interpolation and extrapolation techniques, which essentially create linear estimates, were used to fill in missing years for many of these data points to enable effective time-series analysis. The resulting data, however, are simply estimates, and may not accurately reflect the real year-on-year changes in the states for missing years. Depending on how significantly actual data deviate from these linear estimates, the results of this study could be seriously and adversely impacted. Along these lines, the role of Medicaid spending per enrollee in the analysis must also be interpreted with caution, since the most reliable data were from 1991, the period in which Medicaid is said to have become a “middle-class entitlement.” This could bias results against one of the hypotheses forwarded—that

Medicaid spending would be affected in its association with poor black Americans, a negatively constructed group.

Arguments could also be made that AFDC payments do not have sufficient global impact on infant mortality rates to warrant its use as a predictor, since the analysis did not control for families with newborns receiving AFDC assistance. Medicaid spending, meanwhile, encompasses all spending on Medicaid-related health care assistance, not just spending on pregnant women and infants. As such, it too may be a suboptimal proxy for access to health care, particularly in states where Medicaid spending may be dominated by expenditures related to demographic aging, disabilities and other health areas covered by Medicaid.

Finally, as Moss and Carver (1998) suggest, the timing of program participation (Medicaid, AFDC/TANF, etc.), as well as the timing and cause of infant death, are also important issues to consider in maternal health and infant mortality rates. As a broad exploratory analysis of political determinants of infant mortality, these issues were not measured or covered. Each of these factors, however, could have important implications for why certain policies (such as Medicaid income eligibility) seemed to achieve significance more reliably in the analysis than AFDC and Medicaid spending. Moreover, this analysis used infant mortality (deaths of infants under 365 days old), instead of a breakdown of this measure into neonatal (first 28 days of life) and infant mortality. It is entirely possible that policy impacts and racial disparities could diverge greatly if neonatal mortality were examined, since maternal and early newborn nutrition, for example, may be more significant factors in mortality.

### *Directions for Future Research*

Limitations aside, the results that emerged from this research project offer fertile ground for future inquiry. Related to the limitations stated, the next stage of this project should examine whether the same results seen with infant mortality hold for neonatal mortality. Along those lines, future research will explore whether there is a correlation between policy, political culture variables and actual causes of infant death, which also vary substantially by race.

Another research path involves the small states (states with fewer than 1,000 live births of black infants). In a future project, plans call for focusing specifically on these states to ask several questions. First, why did states with such small black populations, like Wyoming and the Dakotas, nonetheless choose to enact anti-miscegenation and other segregation laws? Was this merely a bizarre example of policy diffusion from other “innovator” states, as seen with other policies and programs (Walker, 1969; Eyestone, 1977), or was the impetus for such laws embedded largely within the state itself? Another question involves the black infant mortality rate in states with small black populations. In 2003 to 2005, the State of New Mexico, with a black population of less than 3 percent, had a black infant mortality rate of 14.7, virtually mirroring the national black IMR for the period. But why should the black IMR in states with small populations so closely resemble those of states with large black populations, like Virginia or New York? Future research will attempt to unravel this puzzle, as well as whether political culture and past histories of strong racial animus help to explain why more is not done to prevent deaths among what should ostensibly be a very manageable number of black infants.

Local health department governance type (i.e., local, state, shared or mixed) was initially examined in the analysis, with state governance found to be associated with worse infant mortality in difference of means tests. In another test (not shown), local governance of local health departments appeared to be associated with lower infant mortality. Future research may

incorporate this institutional variable following further digging into why this particular configuration should behave differently from the other types.

Over the course of the current research project, the state of Arizona emerged as a state with strong racial animus and poor black infant mortality performance dating back to the start of the period of analysis (1950). This raises another question for future research—are the state’s controversial stances on immigration (embodied in S.B. 1070) and opposition to recognition of slain civil-rights leader Dr. Martin Luther King Jr.’s birthday as a national holiday simply an outcropping of a long history of racially charged policy decisions? If so, does this offer clues for the shape that health policy and outcomes in the state will take going forward?

Infant mortality rates are simply one of several important public health indicators. Future research will expand beyond IMRs to examine whether similar or more robust relationships exist between conventional and racialized political culture, policies, and health outcomes such as mental illness, causes of death and onset of diabetes and other diseases.

Lastly, is the research design of this project, with its emphasis on conventional and racialized political culture, generalizable to examining ethno-racial disparities in infant mortality in other countries? Future research will look at other countries colonized by the British where racial animus is likely to exist, such as Australia and New Zealand, to determine if outcomes similar to those seen with black infant mortality in the U.S. are found among non-white populations in those countries.

*Policy Implications, Recommendations and Final Remarks*



In closing, the findings of this research project have two key implications for policies to address important U.S. health issues going forward. First, the often-ignored aspects of political culture embodied in segregation laws of the recent past *matter*. Second, ostensibly universal policies nonetheless have a divergent impact on the members of different ethno-racial groups. Conscientious policymakers should be well aware of these two embedded issues when designing policy in order to maximize effectiveness. The one real policy recommendation I offer comes ironically from the small states dropped from the formal analysis. As mentioned previously, several of these states (Wyoming and Vermont, for example) have fewer than 100 live births of black infants in any given year. Once an analysis of the causes of death among black infants is performed, this small number of births is easily within the ability of a single public health professional to impact should the causes of death prove preventable. Given the level of infant mortality risk and public knowledge of the problem, a standing policy of active pre- and postnatal surveillance of black mothers and infants is a policy that, if not already in place, should be strongly considered in applicable states. More immediately, newborn intensive care units (NICUs) should be installed in all communities serving largely black communities, since black infants are at most risk for pre-term birth and low birthweight, the conditions most frequently linked to infant mortality. Ironically, the high levels of residential segregation that persist today (Polednak, 1996; Williams and Collins, 2001; Vaughn Sarrazin, Campbell and Rosenthal, 2009) should make it relatively easy for public health officials to identify and prioritize hospitals that should receive this life-saving response system.

Finally, while the performance of the racial animus variable in the formal analysis was completely contrary to expectations, there is reason for hope in this unexpected finding. Despite the many racial problems that plague the former slaveholding South, there is something very

positive in knowing that black infant mortality rates are not at their worst in states that were virtually synonymous with irrational racial hostility up through the mid 20<sup>th</sup> century. But as the data show, boldly confronting the gross racial injustices of the past and their legacy effects on the health and socioeconomic wellbeing of modern citizens remains a continuing challenge that *all* states must face. The hope is that this research project will, in some small way, help the research community consider the issues presented more openly in their own projects. If we are fortunate, policymakers may someday gain a better understanding of how to design policy in ways that enhance social justice, minimize harm, and are less mired in the prejudices born of a still painful and unresolved past.

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### Appendix I: Research Variables and Data Sources

Variable	Measure	Source
State infant mortality rate (stimr)	Infant deaths in a state per 1,000 live births	CDC WONDER ( <a href="http://wonder.cdc.gov">http://wonder.cdc.gov</a> ), U.S. Vital Statistics
White infant mortality rate (wimr)	White infant deaths/deaths of infants born to white mothers in a state per 1,000 live births	CDC WONDER ( <a href="http://wonder.cdc.gov">http://wonder.cdc.gov</a> ), U.S. Vital Statistics

Black infant mortality rate (bimr)	Black infant deaths/deaths of infants born to black mothers in a state per 1,000 live births	CDC WONDER ( <a href="http://wonder.cdc.gov">http://wonder.cdc.gov</a> ), U.S. Vital Statistics
Gap in black-white IMRs (gap)	Black-white gap in infant mortality rates in a state (black IMR – white IMR)	Calculated by the author from black and white infant mortality rates
Percent black of state population (blkpop)	Percentage of the states population African American/black	U.S. Census data from 1950 to 2010; data for missing years extrapolated and interpolated
State abortion rate (abort)	State abortion rates from 1973 to 2008	Guttmacher Institute ( <a href="http://www.guttmacher.org">www.guttmacher.org</a> ); missing data interpolated from 1973 onward
College or better, black female (blkedbs)	Percentage of black female population age 25 or older with a college degree or more	U.S. Census data from 1950 to 2010; data for missing years extrapolated and interpolated
Percent of black population disenfranchised (blkfelondis)	Percentage of the state's black population disenfranchised in 2005	The Sentencing Project ( <a href="http://www.sentencingproject.org/template/index.cfm">http://www.sentencingproject.org/template/index.cfm</a> )
Black-white imprisonment ratio (prisondis)	The black-white disparity in incarceration expressed as a ratio to 1 (whites) in 2005	The Sentencing Project ( <a href="http://www.sentencingproject.org/template/index.cfm">http://www.sentencingproject.org/template/index.cfm</a> )

<p>Degree of felony disenfranchisement (disenfran)</p>	<p>Coded 1- none, 2-Voting rights restored automatically upon release from prison, 3- restored automatically upon release from prison and discharge from parole (probationers may vote), 4- restored upon completion of sentence, including prison, parole, and probation, 5-permanent disenfranchisement for at least some or all people with criminal convictions, unless government approves individual rights restoration</p>	<p>Brennan Center (<a href="http://www.brennancenter.org/page/-/Democracy/USA%20MAP%203.23.2011.pdf">http://www.brennancenter.org/page/-/Democracy/USA%20MAP%203.23.2011.pdf</a>)</p>
<p>Restrictiveness of public funding of abortion under Medicaid (ablaw)</p>	<p>Coded 1 if all medically necessary abortions funded (including under court order) and 2 if public funding is restricted to cases in which the mother's life is in danger, cases of incest, or is never funded. Applicable from 1977 with enactment of Hyde Amendment</p>	<p>Guttmacher Institute (<a href="http://www.guttmacher.org">www.guttmacher.org</a>)</p>

Medicaid income eligibility for pregnant women (preeligbl)	Ranges from 133% of federal poverty line to 300%	Kaiser Family Foundation, <a href="http://www.statehealthfacts.org">statehealthfacts.org</a> , <a href="http://www.statehealthfacts.org/comparereport.jsp?rep=77&amp;cat=4">http://www.statehealthfacts.org/comparereport.jsp?rep=77&amp;cat=4</a>
Health department governance type (hdguvtype)	Type of local health department (LHD) governance in a state, where 1=local (all LHDs in state are units of local government); 2= state (all LHDs are units of state govt.), 3=shared (All LHDs are governed by both state and local authorities), and 4=mixed (LHDs have more than one governance type)	National Association of County & City Health Officials (NACCHO) ( <a href="http://www.naccho.org">http://www.naccho.org</a> )
Preclearance requirement under VRA 1965	States requiring preclearance for elections and election-related changes as stipulated by Section 5 of the Voting Rights Act of 1965. Coded as: 1- state not covered, 2-partial coverage low (less than 10 counties or townships), 3-partial coverage (10 or more counties or townships covered), 4-entire state	U.S. Department of Justice, Civil Rights Division ( <a href="http://www.justice.gov/crt/about/vot/sec_5/covered.php">http://www.justice.gov/crt/about/vot/sec_5/covered.php</a> )

<p>State political culture proposed by Elazar (1966)</p>	<p>Collapsed version of the eight-category typology of political cultures across the American states developed by Elazar (1966). Categorical variable coded as 1= Moralistic, 2= Individualistic, 3= Traditionalist.</p>	<p>Elazar, Daniel. 1966. American Federalism: A View from the States. New York, NY: Crowell.</p>
<p>Conservatism measure</p>	<p>State conservatism based on total times state electorate chose a conservative candidate in 15 presidential election cycles (1952-2008)</p>	<p>Electoral data from "Atlas of U.S. Presidential Elections," <a href="http://uselectionatlas.org/RESULTS/">http://uselectionatlas.org/RESULTS/</a></p>
<p>Duration of anti-miscegenation laws</p>	<p>Length of time (years) from enactment to repeal of anti-miscegenation laws</p>	<p>LovingDay.org</p>
<p>Blacks first in anti-miscegenation laws</p>	<p>Were blacks named first in AM laws? 1= no law, 2=others, 3=blacks first</p>	<p>Browning (1951)</p>

Status of interracial children in anti-miscegenation laws	Legitimacy of interracial children, where 1=no law, 2=legitimate, 3=illegitimate	Browning (1951)
Penalties for violating anti-miscegenation laws	Penalty in terms of possible jail term for violating anti-miscegenation laws, where 1=no law, 2=0 to 2 years, 3=3 to 5 years, 4=5+ years	Browning (1951)
State GDP	State gross domestic product, in millions of current dollars, years prior to 1963 extrapolated	U.S. Department of Commerce, Bureau of Economic Analysis
State per capita income	Per capita income from 1950 to 2008, in 2011 dollars	U.S. Department of Commerce, Bureau of Economic Analysis
Aid to Families with Dependent Children (cash payments)	Average monthly cash payments to families under the Aid to Dependent Children (Aid to Families with Dependent Children) program, in 1998 dollars	The Book of the States (1951 to 1984); U.S. Department of Health and Human Services, missing data
Title V maternal and child health spending (logmatch08)	Payments by the federal government to the states under Title V of the Social Security Act, in thousands of 2008 dollars (natural log used)	Statistical Abstracts of the United States, 1950 to 1972; U.S. Department of Health and Human Services, missing data interpolated
Incarceration rates (incar)	State incarceration rate per 100,000 population, 1977-2008	Bureau of Justice Statistics ( <a href="http://bjs.ojp.usdoj.gov">http://bjs.ojp.usdoj.gov</a> )
Medicaid payments per enrollee (logmedic08)	Medicaid vendor payments per recipient/payments per enrollee, 1965-2008 (natural log used)	U.S. Statistical Abstract (1977-1991); Centers for Medicare & Medicaid Services (1991-2008); data prior to 1977 extrapolated, with missing years interpolated
Republican governors (repguv2)	Republican governors in the state, from 1950 to 2008	National Governors Association ( <a href="http://www.nga.org/cms/home.html">http://www.nga.org/cms/home.html</a> )

Racial animus (animus)	Measure of racial hostility in the state; index based on combination of extreme values (high values) of 7 other segregation law variables. 1=Low hostility, 7=high hostility	Created by author
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## Appendix II: Supplemental Information

**Table 1: States With Average Percent Increases in Infant Mortality After PRWORA**

States	Average Pct. Change in State IMR Pre-PRWORA (1995)	Average Pct. Change in State IMR Post-PRWORA (2001)
Alaska	-21.7	0.1
Connecticut	-8.8	0.8
Delaware	-24.9	6.0
Hawaii	-1.6	6.7
Idaho	-28.7	1.3
Louisiana	-8.4	0.2
Michigan	-24.8	0.2
Nevada	-13.6	1.2
New Hampshire	-14.2	4.9
New Mexico	-30.0	1.2
North Dakota	-5.9	11.3
Oklahoma	-9.5	0.2
Oregon	-28.5	0.6
Rhode Island	-12.6	5.2
South Carolina	-15.2	1.3
South Dakota	-7.7	1.8
Tennessee	-10.7	1.7
West Virginia	-15.6	1.7
Wyoming	-6.0	1.2

Calculated as average percentage-point change for the six-year periods 1990 to 1995 and 1996 to 2001, based on data from *Vital Statistics of the United States* and CDC WONDER.

**Table 2 30 States That Enacted Anti-Miscegenation Laws**

STATE	Century Enacted	Duration (Yrs.)	STATE	Century Enacted	Duration (Yrs.)
Alabama	19 <sup>th</sup>	145	Delaware	18 <sup>th</sup>	246
Arizona	19 <sup>th</sup>	97	Florida	19 <sup>th</sup>	135
Arkansas	19 <sup>th</sup>	129	Georgia	18 <sup>th</sup>	217
California	19 <sup>th</sup>	98	Idaho	19 <sup>th</sup>	95

Colorado	19 <sup>th</sup>	93	Illinois	19 <sup>th</sup>	45
Indiana	19 <sup>th</sup>	147	Indiana	19 <sup>th</sup>	147
Iowa	19 <sup>th</sup>	12	Iowa	19 <sup>th</sup>	12
Kansas	19 <sup>th</sup>	4	Kansas	19 <sup>th</sup>	4
Kentucky	18 <sup>th</sup>	175	Kentucky	18 <sup>th</sup>	175
Louisiana	18 <sup>th</sup>	243	Louisiana	18 <sup>th</sup>	243

Source: LovingDay (<http://www.lovingday.org/>), accessed December 2, 2012

**Table 2 30 States That Enacted Anti-Miscegenation Laws (Cont'd)**

STATE	Century Enacted	Duration (Yrs.)	STATE	Century Enacted	Duration (Yrs.)
Maine	19 <sup>th</sup>	62	Oklahoma	19 <sup>th</sup>	70
Maryland	17 <sup>th</sup>	275	Oregon	19 <sup>th</sup>	89
Mass.	18 <sup>th</sup>	138	Penn.	18 <sup>th</sup>	55
Michigan	19 <sup>th</sup>	45	Rhode Is.	18 <sup>th</sup>	83
Miss.	19 <sup>th</sup>	145	S. Carol.	18 <sup>th</sup>	250
Missouri	19 <sup>th</sup>	132	S. Dakota	20 <sup>th</sup>	48
Montana	20 <sup>th</sup>	44	Tenn.	18 <sup>th</sup>	226
Nebraska	19 <sup>th</sup>	108	Texas	19 <sup>th</sup>	130
Nevada	19 <sup>th</sup>	98	Utah	19 <sup>th</sup>	111
New Mex.	19 <sup>th</sup>	9	Virginia	17 <sup>th</sup>	276
N. Carol.	18 <sup>th</sup>	252	Wash.	19 <sup>th</sup>	13
N. Dakota	20 <sup>th</sup>	46	W. Virgin.	19 <sup>th</sup>	104
Ohio	19 <sup>th</sup>	26	Wyoming	20 <sup>th</sup>	52

Source: LovingDay (<http://www.lovingday.org/>), accessed December 2, 2012

## Appendix III: Correlation Tables for Chapter 6 Time-Series Regression Models

### *Model 1 Infant Mortality Rates and Direct Factors*

	Restricted abortion funding	End of welfare	Maternal/child health spending	AFDC	Medicaid eligibility for pregnant women	Tough on crime
Restricted abortion funding	1					
End of welfare	0.0075	1				
Maternal/child health spending	-0.044	-0.0007	1			
AFDC	-0.4475	0.299	0.0067	1		
Medicaid eligibility for pregnant women	-0.2481	0.0032	0.1298	0.2557	1	
Tough on crime	0.2688	-0.2124	-0.0284	0.3338	-0.0924	1
Black population	0.2394	-0.0272	0.2576	0.4983	0.045	0.2216
Medicaid payments	-0.0175	-0.4912	-0.0887	0.2564	0.0114	0.177
Per capita income	-0.1418	-0.6317	0.0434	0.2194	0.061	0.2259
Blk. female college education attainment	-0.2936	-0.3696	-0.1977	0.0545	-0.057	-0.0952
Abortion rates	-0.3789	0.1368	0.2905	0.3167	0.1071	0.0064
Poverty rates	0.223	0.046	0.1216	0.5834	-0.1944	0.0731

	Black population	Medicaid payments	Per capita income	Blk. female college educational attainment	Abortion rates	Poverty rates
Black population	1					
Medicaid payments	-0.0822	1				
Per capita income	-0.0352	0.8662	1			
Blk. female college educational attainment	-0.3391	0.47	0.4924	1		
Abortion rates	0.0336	0.1392	0.2357	0.0711	1	
Poverty rates	0.4964	-0.2086	-0.2927	-0.2258	-0.3562	1

### *Model 2 AFDC, Medicaid and Political Factors*

	State IMR	Black pop.	Racial animus	Poverty rates	State conserv.	GOP gov.	White ethnic homog.	State GDP (log)
State IMR	1.0000							
Black pop.	0.1289	1.0000						

Racial animus	0.1532	0.6586	1.0000					
Poverty rates	0.5851	0.4040	0.4485	1.0000				
State conserv.	0.0860	0.2108	0.5268	0.2970	1.0000			
GOP gov.	-0.1129	-0.1716	-0.1822	-0.1843	-0.0354	1.0000		
White ethnic homog.	-0.0873	-0.5442	-0.2140	-0.0615	0.1688	0.0984	1.0000	
State GDP (log)	-0.6126	0.2533	0.0380	-0.4576	-0.1402	0.0395	-0.2321	1.0000

	White IMR	Black pop.	Racial animus	Poverty rates	State conserv.	GOP gov.	White ethnic homog.	State GDP (log)
White IMR	1							
Black pop.	-0.0495	1						
Racial animus	0.0582	0.6586	1					
Poverty rates	0.5913	0.404	0.4485	1				
State conserv.	0.0497	0.2108	0.5268	0.297	1			
GOP gov.	-0.0906	-0.1716	-0.1822	-0.1843	-0.0354	1		
White ethnic homog.	0.01	-0.5442	-0.214	-0.0615	0.1688	0.0984	1	
State GDP (log)	-0.7684	0.2533	0.038	-0.4576	-0.1402	0.0395	-0.2321	1

	Black IMR	Black pop.	Racial animus	Poverty rates	State conserv.	GOP gov.	White ethnic homog.	State GDP (log)
Black IMR	1							
Black pop.	0.0485	1						
Racial animus	0.0913	0.6331	1					
Poverty rates	0.5949	0.4641	0.5002	1				
State conserv.	0.0758	0.3241	0.6183	0.3875	1			
GOP gov.	-0.1867	-0.1579	-0.2083	-0.2727	-0.1288	1		
White ethnic homog.	-0.0352	-0.5018	-0.2167	-0.0704	0.1077	0.0289	1	

State GDP (log)	-0.802	-0.0214	-0.1686	-0.5908	-0.1783	0.1815	-0.1155	1
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**Model 3 Infant Mortality Rates, Direct Factors and Political Factors**

	Restricted abortion funding	End of welfare	Maternal/child health spending	AFDC	Medicaid eligibility for pregnant women	Tough on crime
Restricted abortion funding	1					
End of welfare	0.0075	1				
Maternal/child health spending	-0.044	0.0007	1			
AFDC	-0.4475	0.299	0.0067	1		
Medicaid eligibility for pregnant women	-0.2481	0.0032	0.1298	0.2557	1	
Tough on crime	0.2688	0.2124	-0.0284	0.3338	-0.0924	1
Black population	0.2394	0.0272	0.2576	0.4983	0.045	0.2216
Medicaid payments	-0.0175	0.4912	-0.0887	0.2564	0.0114	0.177
Per capita income	-0.1418	0.6317	0.0434	0.2194	0.061	0.2259
Blk. female college education attainment	-0.2936	0.3696	-0.1977	0.0545	-0.057	0.0952

	Black population	Medicaid payments	Per capita income	Blk. female college education attainment	Abortion rates
Restricted					

Restricted abortion funding					
End of welfare					
Maternal/child health spending					
AFDC					
Medicaid eligibility for pregnant women					
Tough on crime					
Black population	1				
Medicaid payments	-0.0822	1			
Per capita income	-0.0352	0.8662	1		
Blk. female college education attainment	-0.3391	0.47	0.4924	1	
Abortion rates	0.0336	0.1392	0.2357	0.0711	1
Poverty rates	0.4964	-0.2086	-0.2927	-0.2258	-0.3562
Racial animus	0.6482	-0.1027	-0.1302	-0.288	-0.2372
White ethno-racial homogeneity	-0.5711	0.038	-0.0984	0.1658	-0.4557
State conservatism	0.1995	-0.0349	-0.1302	-0.0342	-0.4036

	Poverty rates	Racial animus	White ethno-racial homogeneity	State conservatism	GOP governors
Abortion rates					
Poverty rates	1				
Racial animus	0.5832	1			
White ethno-racial	-0.0895	-0.2105	1		

homogeneity					
State conservatism	0.4156	0.5267	0.1769	1	
GOP governors	-0.1092	-0.1064	0.0429	0.0067	1