# STRUCTURAL RACISM AND SYSTEM DYNAMICS: A THEORY AND METHODOLOGY FOR ADDRESSING RACIAL DISPARITIES

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## ABSTRACT<sup>1</sup>

Understanding how interactions between apparently race-neutral institutions and policies can reproduce racial disparities is essential to a Civil Rights Movement in the United States in the 21st Century. Moving from a discourse that focuses on individual intent as the determining factor in whether racism exists to a discourse that focuses on the presence/absence of racial disparities and the structures that reproduce them requires a new language and vocabulary, while conceptualizing and operationalizing effective interactions that will reduce these disparities requires a new methodology. System dynamics can play a key role in providing both a language and a methodology that fits in current thinking around structural racism. Having an empirical model that can reproduce the interactions between key racial disparities is especially important in formulating policy interventions, as most attempts to reduce racial disparities have met with considerable policy resistance. A dynamic hypothesis is proposed that the stock of African-Americans living in areas of concentrated poverty is one of the key drivers of racial disparities.

#### INTRODUCTION

In 2005, images from Hurricane Katrina came flooding into the national consciousness and these images showed largely the same thing: poor African-Americans<sup>2</sup> struggling to survive in a decimated city. However, in the ensuing national discourse we were collectively left stammering over our words as we tried to reconcile the fact that we clearly could not ignore race in this situation with the oft-repeated myth of living in a color-blind meritocracy, or a post-racial society.

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<sup>&</sup>lt;sup>2</sup> Throughout this paper, I will be using a primarily black/white paradigm for talking about race. I recognize that this may seem odd, as race relations in the United States are considerably more complex than they were 100 years ago. However, I hink that the black/white paradigm, in the simplicity of its binary perspective, does an excellent job of unmasking power relations. Note Pastor (2003): "While the traditional binary may be increasingly limited in its descriptive capacity and political salience, the risk entailed by rejection is simple: rooted as it is in the experience of slavery, Jim Crow, and other practices of racial exclusion, the Black-white paradigm tends to have the virtue of shining the spotlight on power." (p. 4) Particularly when we are discussing racial segregation and concentrated poverty, it is clear that the roots of this problem lie in historic anti-Black segregation practices and that, in its current manifestation, it is African Americans who bear the harshest burden of being cut off from opportunity. In many cases, if we take the steps necessary to alter the structures reproducing Black-white disparities, we will be improving the life chances for people of all races and ethnicities.

A structural theory of racism (or racialization) offers a way of understanding racial disparities in a post-civil rights America. It asks and answers questions about why racial disparities persist on almost every level<sup>3</sup> even as segregation-by-law is a thing of a past and most white Americans claim not to hold racist viewpoints . (Gilman 2005). It draws upon both traditional functional and systems theories of social science and critical race theory to re-conceptualize what we mean by the term racism, and how we understand race to operate within a society.

In his now-classic work on structural racism, Eduardo Bonilla-Silva (1997) points out that for much of its history, social science has been concerned with racism as a faulty belief structure. In this belief structure, "racism" is the reason why certain people, organizations, or institutions take actions that are harmful to people of a certain racial group. An effect of this is that for an action to be "racist" it must require an actor with a racist intent. He points out that the dominant social science ideologies usually point towards racism as an undesirable mental aberration leftover from periods of historical injustice. From the dominant perspective, then, it is easy to see then why segregation laws in the Jim Crow law were racist – they had clear racial bias behind their intent but it becomes impossible to explain how racism is still functioning to maintain African-American ghettos in every major city in the United States. Where is the person or organization with a racist intent? In the absence of that intent, is this segregation still racist?

When we examine the social problems that plague most central cities in the United States today, it is impossible to ignore race, yet we still do not collectively have the vocabulary to formulate the questions we need to ask. Too often we still focus on intent – needing to find proof of racism before we will agree that an institution or structure can have unjust outcomes. Yet it is precisely these questions that become not only irrelevant in a structural racism frame, but actively obfuscational. The extent that racism is still conceived of within an individual and intent-focused framework is the same extent that we are still unable to understand the reality of what race is. This

<sup>&</sup>lt;sup>3</sup> Compared to Whites in 2005, African-Americans have a 150% higher infant mortality rate, 5 year less life expectancy, greater than 8x chance of being imprisoned in their lifetime, 55% less chance of having a college degree, a 1 to 5 wealth gap regardless of income, and a 1-6 wealth gap overall (in some cities this is as high as 1-10), are less likely to own a house, are more likely to be victims of crime, especially violent crime, etc. For a more complete overview of disparities and key reference modes, see appendix I. (Source: Census Bureau: Statistical Abstract of the Unites States 2004-2005)

framework allows us to write off the racial disparities that we cannot explain by prejudice alone as somehow natural or just.<sup>4</sup>

However, with a structural racism lens, intent becomes subordinate to outcome, and it is possible for race-neutral policies to be "racist" if they produce racially disparate outcomes. Indeed, racist intent, in terms of psychological manifestations of race-specific negative attitudes, can be seen as an outcome of having structures that produce a racially organized society, rather than the cause of that racial organization. A theory of structural racism, then, asserts that racism's most deleterious effects in the United States today come from the interactions of institutions and structures, rather than because of prejudical intent. As Gilman puts it, "long after white people cease to actively hate…minorities…there persist social patterns, where people live, what social organizations they belong to…and so on…that are bearers of the racist past even though they may not…be populated by active bigots [today]. This social and economic exclusion on the basis of race is what "racism" is really about." (Gilman, p. 4) A theory of structural racism invites us to consider racism not as a static event that occurs at one moment but rather a historical process that is continually creating the meaning of race.

#### SYSTEM DYNAMICS

System dynamics represents an underutilized tool for both organizing/educating around structural racism issues and for seeking to find interventions that can reduce the seemingly intractable racial disparities that characterize nearly every facet of American life in the 20<sup>th</sup>, and now 21<sup>st</sup>, centuries.

If we consider racism as a process unfolding over time, rather than as an event, and if we consider structural racism to be the interactions between attitudes, policies, socioeconomic systems, and metropolitan dynamics, it is clear to see the role that a system dynamics framework would have in more rigorously understanding how racial disparities are reproduced in today's United States - a country where an African-American is president, yet an African-American male

<sup>&</sup>lt;sup>4</sup> This "writing off" can occur very explicitly – in terms of asserting that to the extent people focus on existing racial disparities they are being "racist" because they are still viewing humans in groups rather than individuals – using the biological fallacy of racial categories to argue against any social reality to those categories. But it can also occur on a subtler level of ascribing them to a dysfunctional Black culture without seeing the underlying structures and feedback loops that are both producing aspects of that culture and perpetuating disparities even without any individual behaviorial component like "working hard enough."

born today stands a higher chance of going to prison than graduating from college. (Justice Policy Institute, 2000)

## The need for SD models of racial disparities

The sheer endurance of racial disparities (See Appendix I) suggests a system that has a high degree of policy resistance.<sup>5</sup> The fact that nearly all racial disparities saw an immediate narrowing during the War on Poverty programs of the late 60s and early 70s and then either returned to their pre-dip levels or continued to remain stagnant suggests that there are strong balancing loops that are maintaining a system of racial hierarchy. Also, as I have talked about above, many dominant theories of racism suggest that racial attitudes and racial outcomes are closely linked—y et we have seen a tremendous improvement in racial attitudes without anything close to a corresponding decrease in racial disparities. (CITE FOOTNOTE) It is also clear that many disparities are mutually reinforcing, yet much work on racial disparities continues to treat them as if they were unrelated. It may in fact be possible to substantially reduce racial disparities along one particular indicator of wellbeing without affecting others. Yet, it is much more likely that there are one or more leverage points that can move many racial disparities at once, and that those leverage points will be found at the intersection of multiple disparities.

There has been no shortage of bright minds working on racial disparities, yet time and again we have seen interventions both large and small fail to make significant progress towards eliminating racial disparities. Indeed, one could make the case that if you look at the last 60 years of racial justice interventions—f rom broad national level programs (No Child Left Behind), to state or metropolitan level programs (unitary government structures), to neighborhood programs ("Weed and Seed" or other redevelopment initiatives)—we see policy resistance and unintended consequences rear their ugly heads again and again.

We also know that one of the canonical system responses to intervention is "worse-before better" or "better-before-worse" (Intro to System Dynamics website). Without a well validated model, we run the risk of either picking the wrong interventions because they show immediate gains in the short-term, or discarding a potentially useful intervention because it appears to be ineffective in the short term. While there is a growing movement within both public policy schools

<sup>&</sup>lt;sup>5</sup> Also worth noting here is the disconnect between the support white people generally have for racial equity in the abstract, but the lack of support for policies that would create that equity. There is some research to show that this is because the historical and structural factors underpinning racial disparities are not widely understood, and after being presented with them, support for re-distribution policies and other equity policies increases significantly (Tuch and Hughs, 1996)

and social work schools to move towards more empirically-supported interventions, it is not always clear how to analyze complex systems within acccepted statistical frameworks. Thus exists the need to move beyond simple correlational models and towards a simulation framework.

It is worth noting that *Urban Dynamics* (Forrester, 1969) is continually cited as one of the first examples of system dynamics being applied to a social problem. A system dynamics model that looks at racial disparities will have metropolitan and urban dynamics (white flight/urban sprawl, concentrated poverty, land use policies, deindustrialization, jurisdictional and taxbase fragmentation) at its core. In many ways, rather than applying system dynamics to an area that it has never touched I am calling for a continuation of Forrester's still-relevant work, with a specific focus on racial disparities.

Using a structural race lens does not deny that interpersonal and intentional prejudice still play a part in racism in the United States, nor does it suggest that the gains in racial tolerance, the abolishing of legal segregation, etc are not good things. However, those are simply inadequate to explain the durability of racial inequality in the United States, and in some cases not even the main causal factor. While racial steering still likely plays a part in racial residential segregation, f,or example, even if it were to disappear overnight, we would likely not see much of an increase in integration.

Additionally, using a system dynamics model that focuses on the current structures that perpetuate racial disparities does not in any way diminish the vicious legacy of past racism in the United States. Indeed, one of the strengths of a system dynamics model is that it can show that a simple feedback structure can continue "doing the work" of past racism, long after that input has diminished. For example, if homeownership is one of the primary ways in which Americans generate wealth, and only white Americans were eligible for FHA loans to buy houses in the 1940's and 1950's (Feagin, 1999), then *that same* intentional racism is still "echoing around the system" and driving today's racial wealth disparities, even though it hasn't existed as an input to the system in two generations. A system dynamics model then, does not provide us a way to show that intentional racism does not exist, but rather shows us *how it continues to live on* through structures, time-delays, and vicious cycles.

## The need for group model building efforts

In his book on group model building, Jac Vennix (1996) emphasizes model building with stakeholders not only as a way to gain validity, but also as a way of increasing stakeholder buy-in to the conclusions that come out of that model. In much the same way, I envision a casual- loop modeling exercise that provides a space where people can both talk about issues that are normally taboo (what creates racial disparities), and a process by which people gradually build their acceptance of the switch from individual and intent-based thinking to an understanding of race and racism that includes structures which at first glance might not appear to have anything to do with racial disparities.

#### *The inadequacy of correlational statistics*

One of the difficulties in using race as a variable in social science research is the risk of either reifying a socially constructed category into something essential, or stripping it of its very meaning by applying reductionist methodologies.<sup>6</sup> In particular, the approach of most multivariate quantitative studies that use race as a relevant variable is that of trying to consider race as a causal factor in the absence of all the various factors that give race meaning in contemporary society by using multiple regression models that control for factors like socioeconomic status, education level, household demographics, neighborhood poverty, etc.<sup>7</sup> A particular kind of holistic theory is necessary , one that not only recognizes racial categories as a social construct, but realizes the very categories and meanings that go along with those categories are interdependent with racial disparities (and thus, the structures that create them). While this paper will focus primarily on the interactions of structures that have no explicit racial intent, even racial intent becomes part of a multi-level system when we consider that the categories that this meaning are based on are meaningless on any essential level.<sup>8</sup> Or, to paraphrase David Roediger (1999), "White privilege is

<sup>&</sup>lt;sup>6</sup> One needs only to look at the way the Census has tabulated race over the years to get a handle on some of the difficulties of operationalizing such a slippery variable. It has gotten more complex with each passing Census. The 2000 Census included over 50 racial combinations and a write-in area for races/ethnicities not mentioned, creating all sorts of headaches for researchers using racial categories.

<sup>&</sup>lt;sup>7</sup> This gives rise to particular perverse studies, like a recent one published in *Science Daily* (June 31, 2007) which trumpeted "Disparities in Infant Mortality Not Related to Race" in the title but then concluded, "For black women, 'something about growing up in America seems to be bad for your baby's birth weight."

redundant." From a systems standpoint, we might view "race" as emerging out of a particular loop of structures, disparities, and racial meaning. (See below)

It is not simply a matter of misleading statistical methodologies, but rather the very assumptions that underpin them. Many correlational studies use race as the variable of interest, and then attempt to control for such things as income, employment, wealth, etc. Yet in the United States, more than in most Western countries, race and class have always been interdependent and mutually causative. In nearly every domain of life in the United States, class and race help define one another.

One of the advantages of a system dynamics based methodology is that it has no problems with the idea of causal recursion. A system producing both racial disparities and racial attitudes (which then play a part in the structures which re-create the disparities) is not taken as a problem to be solved, but a description of the way in which the world is actually working. This will be explored more in the next section.

Figure 1: Racial Meaning and Structures

<sup>&</sup>lt;sup>8</sup> While this paper focuses on contemporary forms of structural violence and the construction of racial meaning/racial disparities, it is important to note that in the history of the United States, the construction of white identities often required very explicit and egregious anti-Black violence by newly arriving European immigrants. See, for example, Noel Ignatiev's *How The Irish Became White* (CITE) and Gugliemo and Salerno's anthology, *Are Italians White*? (CITE)

## INITIAL CAUSAL LOOP WORK

In building an initial causal loop diagram of the structures that are creating racial disparities in the United States, I drew on a considerable amount of already existing work – some of which used terminology (i.e. vicious cycles) highly correlated with a feedback approach, some of which used more traditional social science terms of correlation. I would like to examine some of the structures that reproduce key individual disparities, highlight possible leverage points for policies/interventions, and provide examples of cumulative causation, feedback effects, and policy resistance. For a full overview of the causal loop diagram, see Appendix II.

#### WEALTH

Racial wealth disparities continue to persist at extraordinarily high rates in the United States. In 2001, the average net worth of a white household was \$121,000, while the average black household had about \$19,000 in net worth. (United for a Fair Economy, 2001) This disparity is substantially greater than the current income disparity, which is generally about 100%, or 2-1 (Census 2000).

In some ways, the positive feedback loops that drive wealth accumulation in a capitalist system are straightforward. (See Figure 2) Capital always seeks a return on itself, and the accumulation of wealth in the form of appreciating assets and investments allows that wealth to grow at an exponential rate.

It is key to see that there are two possible places for interventions. One is homeownership, which remains the primary way that people and families in the United States build wealth.<sup>9</sup> Homeownership disparities continue to persist (and similar homes in majority black neighborhoods are often worth less than they would be in a majority white neighborhood). Another, however, is in the inheritance loop. This is politically treacherous ground, as recent discussions categorizing the rather modest estate tax as a "death tax" prove. There is little support for modestly increasing the estate tax, much less declaring that all wealth is returned to society at death and all new children

<sup>&</sup>lt;sup>9</sup> Not only in terms of owning an appreciating asset, which is important, but also in terms of getting public money in the form of tax breaks. Currently, the nation's tax code provides benefits and tax cuts to homeowners that are not available to renters. In 1997, there were over \$90 billion in tax breaks distributed to home owners, and between 1978 and 1997 \$1.3 trillion was spent on these breaks compared to \$461.8 billion on *all* federal low-income housing subsidies.

born are given an equal amount of money from the same pot that can be accessed later in life for educational expenses, homeownership, etc (as has recently been implemented to a small scale in some European countries). However, it remains a potentially interesting intervention, which would have the effect of "resetting" personal wealth each generation and effectively breaking the amplifying effect of intergenerational wealth transfer that has begun to look like a caste system. For example, in his work writing about expanding access to educational opportunities, Roberto Unger (2000) also writes about replacing individual/family transmission of property and wealth:

> The family transmission of property and the family transmission of differential education al opportunity are the two great mechanisms sustaining the class structure of contemporary societies. The strengthening of rights to education should be seen as the germ of a more ambitious idea: the idea of social inheritance according to which people inherit primarily from society rather than from their parents. (p. 94)

One of the reasons racial disparities remain so intractable is because of the linkages between race and class in the United States and the fact that the United States has the lowest level of social mobility in the industrialized world. (Solon, 1992) Conversely, it has also been posited that the reason so little social mobility is present in the United States, whereas there has been significant pushes for more wealth redistribution in most European countries, is because poverty has been racialized in the US. (Roediger, 1999)



#### FIGURE 2: WEALTH CLD

CASE STUDY 1: GI BILL (historical input with current/compounding effects)

During the post-war boom, many mortgages were financed through 30 year long GI Bills through the Federal Housing Administration. Yet, these low-interest mortgages were mostly off the table for African-Americans, and many of the new suburbs being built were explicitly for whites only. (CITE) Due to a historical segregation practices, many African-American families missed out on the chance to buy into the American Dream and accumulate substantial assets - in fact, less that 1% of African-American households were able to receive a mortgage during the suburban boom years of 1930-1960. "By 1984, when GI Bill mortgages had mainly matured, the median white household had a new worth of \$39,135; the comparable figure for black households was only \$3,397 or just 9 percent of white holdings." (Katznelson, 2005) Since many Americans now leverage their wealth to purchase homes in areas with high quality and high performing schools, the initial disadvantage has both compounded in terms of being cut off from a reinforcing feedback loop (housing equity/investment) and in terms of feeding into other causal structures (ie; new children being born to parents who lack the wealth to move to areas with higher-performing school districts, etc)

## EDUCATIONAL SEGREGATION AND HOUSING SEGREGATION

School is probably the only place outside of home we spend most of our time as a child, and educational attainment is a strong predictor of future earnings and job satisfaction. Not only does educational attainment affect life as a working adult in terms of job opportunities and wages, that income is a prime determiner of what neighborhood you live in, and what the educational attainment of your children will be. (Urban Institute, 1994)

One of the main ways in which racial disparities are reproduced in education is by determining both the school you attend and the resources of that school. As the Brookings Institution notes in a report on Concentrated Poverty and Katrina, "[c]hildren who live in extremely poor urban neighborhoods generally attend neighborhood schools where nearly all the students are poor, and are at greater risk for failure, as expressed by low standardized test results, grade retention, and high drop-out rates." (Katz, 2005) Whatever measures we use: looking at the educational spending per pupil, the percentage of teachers teaching in areas where they have higher education training, the availability of after-school programs, etc it is clear that there is a large and persistent gap between the educational opportunities available to children in low-poverty neighborhoods vs children in high-poverty neighborhoods. (Fund, 2004)

In recent years, many have felt free to downplay the role of funding disparities in reproducing educational disparities, pointing out for example that educational spending per pupil only weakly correlates with educational outcomes (problems with measuring those outcomes aside). However, in our model we can see that funding may be inadequate to capture the full picture of the structures reproducing racial disparities, but it is certainly one effect. Others include environmental factors (sufficient nutrition and health care), environmental factors, teaching quality/relevance, etc.

It is because educational attainment correlates strongly with income later in life (access to job opportunities) that this represents a key strategic area for change. It also is a relatively straightforward (if often politically unfeasible) intervention to break the causal loop that links the wealth of your neighborhood with the resources of your school - simply implement a common pool funding of all public schools in a metropolitan region. Tax-sharing programs have even been court ordered in some cases (for example, in Ohio), although legislatures have felt free to ignore those orders.

Who, following the momentous *Brown vs Board of Education* decision, would believe that schools would continue to be highly segregated a half-century later? Yet not only does school

segregation continue to persist, extreme segregation is getting worse. The number of nearly allminority schools (defined as a school where fewer than 5% of the students are white) in the United States **doubled** between 1993-2006. (Fry, 2007) This segregation is not only racial, but also classbased - nearly 2/3 of majority-minority schools are located in areas of concentrated poverty.

It will come as no surprise that students in economically and racially isolated schools tend to do worse than their counterparts in more well-funded schools. However, research has also shown that the socioeconomic status of a school has more impact on a child's educational attainment that her own socioeconomic status.

In a vicious/virtuous loop, not only is housing segregation a prime cause of school segregation, but school integration can actually contribute towards more integrated neighborhoods. (Orfield and Luce, 2005) Yet our public policies by and large continue to focus on housing and education as completely separate arenas for intervention, rather than as interconnected ones.

#### Figure 3: EDUCATION CLD

## CASE STUDY 2: MORE UNINTENDED CONSEQUENCES

In California, HR 881 was passed in an effort to impact racial disparities by providing incentives to schools to lower class sizes Suburban schools that had the money to hire more teachers lowered their class sizes, thus opening up vacancies for teaching positions. Many senior teachers in innercity schools took jobs teaching in the suburbs, forcing inner city schools to hire less qualified teachers. The number of teachers with less than 5 years of experience teaching currently teaching in inner city schools in Los Angeles and Oakland has **tripled** since the resolution was passed. (Kirwan Institute, 2008)

## MASS INCARCERATION

The US has one of the highest rates of incarceration in the world. Incarceration statistics are staggering. According to Bureau of Justice Statistics, the incarcerated population of the US has increased from 150,000 in 1969 to over 2.2 million in 2003. While most other industrialized nations have incarceration rates below 1 in 1,000. (Mauer, 2003), as of December 31, 2003, one in every 140 U.S. residents was confined in a state or federal prison or a local jail. ("U.S. prison population approaches 1.5 million", 2004)

These rates are not distributed evenly in terms of race. Human Rights Watch notes that nationwide, a black man stands a chance over 8-9 times greater than his white counterpart in going to prison. In some states the disparities are even more shocking—in Minnesota, the state with the greatest racial disparity in incarceration, a black man is 26.8 times more likely to be in prison than a white man. Perhaps the most shocking statistic of all is that, nationwide, currently nearly one out of every three black men above the age of 18 are in prison, on probation or on parole. (Mauer, 2003). As Glen Loury (2008) notes,

[A]t eight to one, the black to white ratio of male incarceration rates dwarfs the two to one ratio of unemployment rates, the three to one nonmarital child bearing ratio, the two to one ratio of infant mortality rates and the one to five ratio of net worth. More black male high school dropouts are in prison than belong to unions or are enrolled in any state or federal social welfare programs

Incarceration has obvious negative effects for those incarcerated in terms of further life opportunities post-incarceration. One study by the Institute for Research on Poverty has shown that fathers who had been incarcerated earned on average 53 percent less than never-incarcerated fathers. (Lewis, 2002) It also has destabilizing effects on families and communities, and possible increased crime effects (some studies show that those imprisoned for non-violent offenses are more likely to commit violent crimes in the future than counterparts diverted to other probationary programs for similar offenses - cite), public health effects, etc.

There are a few things to note about the incarceration feedback loops. One is that incarceration has the potential to increase crime - if incarceration decreases employment opportunities later in life, then that decrease has the effect of putting pressure on one to participate in black market economic activities. If that "crime pressure" loop is more dominant than the "deterrance" balancing loop, incarceration will beget even more incarceration.<sup>10</sup>

The second thing to notice is that due to the nature of incarceration, the stock of offenders re-entering society is highly time-lagged. In essence, we have a stock of people in prison who may be more likely to engage in criminal activities when they leave prison, than when they went in. This stock is accumulating at an alarming rate, so some of the effects of the mass incarceration of the past 10-20 years will actually be occurring in the future. If in fact one of the pressures to incarcerate is to keep the unemployment level acceptable, as some radical economists suggest, and we see significant macroeconomic decline and/or the global migration of low-skilled jobs away from the United States at the same time as more and more potential workers are being released from prisons, we would expect that loop to keep increasing incarceration as well. (Released from prison increases unemployment, unemployment increases pressures to incarcerate). Besides the direct casual loops, because incarceration affects job opportunities, which affects the tax base of a community, which affects the rate of incarceration, communities that have high proportions of incarcerated members run the risk of being sucked into a downward spiral.

Lastly, it is worth noting that in terms of disparities over time, this is one of the few disparities that is continuing to increase, rather than remaining stagnant or showing small improvements.

<sup>&</sup>lt;sup>10</sup> There is the possibility that both of these loops are relatively weak because we have not seen any corresponding reports of rises in crime that would account for a rise in incarceration, nor is there evidence that incarceration acts as a significant deterrent. The exponential growth may instead be being driven by the war on drugs and the incarceration of people for things that they would not have been incarcerated for 20 years ago.

## HEALTH DISPARITIES

Health disparities continue to persist across racial lines - including mortality rates (both infant and adult), mental health statistics, diabetes rates, drug abuse rates, insurance coverage, etc. In fact, there are nearly no indicators of physical or mental health - no matter how broad or narrow - that do not exhibit a race-based disparity. Most of the current research being done of these disparities has highlighted the role that unintentional bias or lack of cultural competence plays into treatment decisions and advocated for evidence-based practice to provide neutral and consistent guidelines for care (HHS Fact Sheet, 2006). However, there has also been substantial evidence showing that neighborhood quality, workplace stress, insurance, access to primary care, etc reproduce disparities.

## FIGURE 4: HEALTH CLD

## SEGREGATION AND CONCENTRATED POVERTY:

## THE PERSISTENCE OF THE BLACK GHETTO IN THE UNITED STATES

All of the above key disparity areas include a spatial component. Where one lives affects educational opportunities, job opportunities, wealth creation, health risks, access to public services, investment by public and private investors, etc. When talking about racial disparities, one must talk about "the ghetto". The existence of black ghettos are particular to the United States, and poor black people are, in fact, the only group in this country that can be classified as hypersegregated (Massey and Denton, Cashin, 2004). While racial segregation persists at all income levels, and economic segregation exists regardless of race, poor African-Americans are much more likely to live in areas of highly concentrated poverty than poor whites, and this disparity continues to increase.

In 1960, a poor black child was about 3 times more likely than her white counterpart to live in an area of concentrated poverty. *By 2000, that had grown to be 7x more likely*. Three out of four residents in neighborhoods of concentrated poverty are black or Latino, and blacks in metropolitan areas in 2000 had a 1 in 10 chance of living in concentrated poverty, compared to a

1 out of 100 chance for whites - a ten fold disparity. (CITE)

If I were to propose a single dynamic hypothesis to be focused on, it would be that the stock of African-Americans living in concentrated poverty is capable of being the prime driver of racial disparities across multiple indicators. Not only does concentrated poverty magnify the deleterious effects of poverty in general, the virtual (and often physical) separation of high- poverty urban neighborhoods from the rest of a metropolitan area creates its own unique problems. As Douglas Massey (1996) puts it, "[r]esidential segregation is the institutional apparatus that supports other racially discriminatory processes and binds them together into a coherent and uniquely effective system of racial subordination. Until the black ghetto is dismantled as a basic institution of American urban life, progress ameliorating racial inequality in other arenas will be slow, fitful and incomplete." (p 101)

As we can see below, there are two main processes driving the maintenance of concentrated poverty in most urban central cities in the United States. The first is the "sprawl+fragmentation" loop, written about by john powell, Paul Jargowski, and others. This is a particularly vicious cycle, because sprawl combined with jurisidictional fragmentation leaves some sections of a metropolitan

area able to isolate themselves from any obligations to the region as a whole financially, but still reap the benefits of being part of that region.<sup>11</sup>

powell (2001) notes:

In theory, localized political structures are designed to address local problems, and it is clear that there are many matters best suited to local decisions incorporating local beliefs and needs. In reality, the proliferation of municipalities in metropolitan areas facilitates race and wealth differences through territorial segregation and fiscal separation. To an extent, the localized model for governance also has become an anachronism as the development of our society and technological advances in information and transportation have broadened the individual's spheres of activity and influence and connected communities that at one time would have been considered distant.(p. 42)

The more fragmented an area becomes, the more separated, the more tenuous the threads that bind the region together into any sense of shared community decay, the less likely they are to enact regional plans to reduce sprawl, promote in-fill development, share educational taxes, etc, which drives even more flight away from disinvested cities, etc. Segregation begets more segregation.

The second is a loop related to desirability - as a neighborhood declines, so too does its taxbase. Educational opportunities go down, jobs move away, crime increases -- all factors that make it much less likely to attract investment. Residential mobility - the ability to move elsewhere - is also cut. As employment opportunities decline, the ability to have enough saved money to move out of the area decreases. However, there is a balancing loop related to property cheapness - as a neighborhood and its property values decline, their price also decreases, which makes it more likely that a developer will buy it. Unfortunately, when this loop begins to dominate, it often kicks off a process of gentrification, rather than controlled redevelopment that doesn't displace people.

Figure 5: Segregation and Concentrated Poverty CLD

<sup>&</sup>lt;sup>11</sup> Just as, on a more micro level, suburbs reap the windfall of government spending on highways and infrastructure, sewers, yet decry government spending on social welfare programs.



### CULTURE/BEHAVIOR

One thing that is not yet in this model are cultural and behavioral factors. This is not because they don't matter, but because simply too often the questioning of racial disparities in this country comes with it an entire set of assumptions/beliefs about what behaviors or attitudes need to be changed among those caught in these vicious circles . However, we could and should add them I at some point, because they remain the elephant in the room when talking about race. Meanings, beliefs, behaviors - all emerge from the same structures as well as feedback into them.

In her book XXX, Cashin (2004) spends a considerable amount of time analyzing the psychological consequences for affluent whites who may live and work among mostly other affluent whites and rarely see African-Americans. She examines the cultural norms that concentrated poverty can create in terms of dysfunctional anti-social behaviors, and some forms of racism as being facilitated by having large groups of African-Americans living in conditions of extreme deprivation and developing cultural norms which are diametrically opposed to some of the mainstream norms (and how those behaviors affect the meaning of Blackness as a whole).

When we look at things in this way, it can become clearer that some behaviors are, in fact, dysfunctional, whereas others are simply markers of difference. High rates of substance abuse that often occur in conjunction with extreme poverty have an actual causal mechanism behind their negative consequences of health risks and employment difficulties. Other behaviors, such as differences in using language or styles of dress, are simply different. They are only marked as signs of uneducation because they visibly identify someone as being located at a certain place in this whole web of structures that gives meaning to race. The fact that these behaviors and attitudes effect employment opportunity or likelihood of incarceration is not inherent to the behaviors themselves.

These are also part of a reinforcing feedback loop. To the extent that isolated areas exist in the US, they begin to develop their own cultural norms - whether that isolated area is a black ghetto or a wealthy country club. Some of these will be basically neutral, some of them in direct response to social and environmental conditions, some of them simply linguistic variations,. However, both sets of emerging cultures can be barriers to further integration, which creates even more isolation, which creates even further divergence, and so forth.<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> Note that this is substantially different from conservative "culture of poverty" arguments. The primary argument there is that bad morals contribute to these negative outcomes and that any attempt to alleviate those outcomes (social welfare programs) will keep people from dealing with the full consequences of their decisions and further incentivize the behavior that produced those problems in the first place. On the other hand, I am arguing that it is

## **REFERENCE MODES**

The following section explores some key reference modes of racial disparities aggregated nationwide (United States). These reference modes are not meant to be comprehensive, but rather offer some snapshots of typical disparity typologies.

## Disparity Type: Locked in at Initial Value

Looking at the reference mode for Median HH Income, we can see a disparity that appears to be locked in at its initial values and subject to many of the same macro-level forces. That is, while median household income changes over time for both African-Americans and Whites, the reference modes are simply shifted on the Y-Axis. When we look at African-American income as a percentage of white income, we can see that it is essentially a straight line. While the minor fluctuations may be of importance in teasing out factors that have moved this disparity in the past, from a birds-eye view we can see that the disparity ratio remains largely unchanged.

What this suggests is that neither changes in prejudicial attitudes nor programs meant to increase African-American HH income (affirmative action programs, job training programs, etc). This is particularly striking as this reference mode spans a half-century. Surely the racial landscape has changed dramatically in the United States over the past five decades, yet we can see that in terms of household income, this shifting landscape has nearly zero effect.

true that certain cultural norms can exacerbate already existing disparities, and it is also true that some of the social welfare programs in and of themselves won't result in noticeable changes in outcomes because of the presence of overlapping feedback loops, but in fact these dysfunctional behaviors have arisen out of social/economic isolation, and that in fact many of the cultural/behavioral issues are simply markers of difference (style of dress, language, etc never being inherently good or bad) **or** are only problematic within the current structural arrangements we have. (ie; being a poor single mother does have effects on the life of the child because of various structural arrangements, but we could think about various structural arrangements where the marital status of the parents wouldn't in fact have a bearing on say, a child's chance to get health insurance.



## **REFERENCE MODE 1: MEDIAN HH INCOME**



## Disparity Type: Initial value with amplification effects

Looking at the reference mode for unemployment, we see that once again the reference modes for both African-Americans and Whites appear to be subject to most of the same macrolevel forces. However, whereas for income we saw a simple phase-shift, for unemployment we see amplification effects. That is, where white unemployment and African-American unemployment are subject to spikes at similar times, those spikes are considerably larger for African-Americans. This suggests that there is more vulnerability to shocks within the African-American community.



### **REFERENCE MODE 2: UNEMPLOYMENT RATES BY RACE**

Source: Bureau of Labor Statistics, Employment Situation Historical Table A-2.

## Disparity type: Reduction followed by locking-in

Many of the reference modes for racial disparities show the following behavior (initial reduction followed by a locking in at a lesser disparity) – here represented by percent of children living below the poverty line. An initial improvement is seen during and immediately following the "War on Poverty" social programs and Civil Rights Movement in the Unite States. In this particular reference mode, we also see a dip in the 1990s followed by a new leveling off (likely due to macroeconomic factors). Properly identifying the balancing feedback loops that are resulting in this locking in behavior will be a key part of any simulation model for policy analysis.

#### **REFERENCE MODE 3: PERCENT OF CHILDREN LIVING BELOW POVERTY LINE**



PERCENT OF CHILDREN LIVING BELOW THE POVERTY LINE BY RACE.

WHITE PERCENT BELOW POVERTY
BLACK PERCENT BELOW POVERTY

## Disparity type: Separate structures

Some disparities suggest entirely different structures affecting African-Americans and Whites. For example, per capita homicide rates show little relationship. Many of the disparities that exhibit this pattern suggest more localized and neighborhood effects.



### **REFERENCE MODE 4: PER CAPITA HOMICIDES**

## Disparity Type: Be careful what you wish for

Perhaps the most interesting cases of disparities are those where the underlying referent of the reference mode is getting better for both African-Americans and Whites, yet the disparity continues to increase. When we look at infant mortality for example, we see that infant mortality is dropping for both white infants and African-American infants, yet the disparity ratio continues to increase.

This presents interesting questions on both a structural level (if some disparities cause other disparities, we are likely more concerned with the disparity ratio than disparities that are mostly symptomatic in nature) and a normative/ethical level. If there is a trade-off between absolute gain and disparity levels, which do we choose? For example, if we had a magic program that would halve African-American infant mortality over the next five years, but would quarter White infant mortality, would it be more or less ethical to implement than an intervention that would cut both white and black infant mortality by 10%?



#### **REFERENCE MODE 5: INFANT MORTALITY BY RACE/DISPARITY RATIO**

## Disparity Type: Getting Worse

Some disparities, rather than decreasing are actually continuing to increase. Key among these are wealth disparities and incarceration disparities. Identifying the feedback loops that are driving these increasing disparities and figuring out ways to intervene to reverse them are of critical importance.



### **REFERENCE MODE 5: MEDIAN HOUSEHOLD WEALTH**

## Disparity Type: Improving Disparities

Lastly, there are some disparities that are improviing and moving towards parity. An example of this disparity type is high school graduation rates, which we can see are steadily approaching parity. One of the key issues in any simulation model will be understanding how/when movement towards parity in some areas affects dispairities in other areas. For example, even as we see movement towards parity in high school graduation ratios we do not see corresponding movement towards parity in income. (Also, it should be noted that we are seeing a continual decrease at the speed in which this gap is closing characteristic of a most gap closing structures with a delay)



#### **REFERENCE MODE 6: HIGH SCHOOL GRADUATION RATES**

#### CONCLUSION: A NEED FOR SIMULATION MODELS

The largest limitation in this paper is the lack of a simulation model – arguably the method by which system dynamics generates its most useful knowledge (Homer, 2001). I also realize that the snapshot overviews of some of the feedback loops inherent in each disparity area are, for brevity's sake, incomplete. This work remains almost entirely conceptual at this point, unanchored in the iterative process of model-building.

A series of working simulation models could prove extremely useful in evaluating some of the current debates occurring around some of these issues. For example, should we put energy in the de-concentration of poverty in terms of housing mobility programs, vouchers, etc (moving people to opportunity) or in dismantling some of the structures that connect where you live so strongly with the opportunities available (eg; educational finance reform, public transit funding - moving opportunity to people). Should we focus strictly on wealth/asset issues (IDAs, inheritance tax, homeownership programs, other asset-building programs) or should we focus on in-kind programs (job training, public housing). Would reducing/eliminating imprisonment for non-violent drug offenders help or hurt impoverished communities in the short-term? Broadly speaking, we need to know whether to work within existing frameworks to turn vicious cycles into virtuous ones or whether to alter structural arrangements through large scale macro- level interventions. Especially because of the time lags involved in the model, we need a way to be able to look for what looks like the most promising course of action, rather than only being able to evaluate it 50 years post-implementation and see that our strategies didn't work.

Many correlational studies remain caught in the trap of trying to disentangle racial effects from class effects, without any clear reason for doing so. Furthermore, policy interventions are largely confined to a few variables of interest, based on either the outcomes of natural experiments or programs with few participants. The "cycle of poverty" is common enough language to be referenced a half-million times on Google, yet we are lacking in simulation models that explicitly take into account the racialization of concentrated poverty in the United Sates.

More importantly perhaps, there has, throughout US history, been periods of time when both opponents of racial hierarchy and proponents of racial hierarchy felt that they were involved in the key battle to end it/maintain it. The Civil War, the fall of anti-miscegenation laws, outlawing school segregation -- all of these were thought to be, at the time, a major turning point. Yet, we have seen racial hierarchy stubbornly persist and find new ways of reproducing itself. If we are to have a viable anti-racist strategy, we need to be able to anticipate the ways in which racial privilege will attempt to reproduce itself after we start altering these structures. We need to be able to head racism off at the pass, so to speak. Some theorists are currently arguing that the changing demographics of the United States will take care of race issues, as more and more places become "majority-minority." Yet, if we look at the history of racial hierarchy in the US, it is extremely optimistic to assume that this 'will take care of itself', and there are certainly plenty of examples around the world where being a demographic majority does not translate into power.

I think that system dynamics presents a possibly vital tool in theorizing about how racial meaning is formed in the US, educating and organizing around racism, in evaluating what approaches will be necessary in reducing racial disparities, and what that journey might look like, and where new tensions might emerge. Group model building exercises are a viable strategy for both community organizing work and education, and allow us to build models with high degrees of face validity and buy-in. Reference modes suggest that some disparities are simply phase-shifted – that is it is likely that much of the remaining disparity can be explained by differences at time-zero (ie; most economic variables when averaged out across the population – median income for example – look highly similar), while other disparities exhibit behavior that suggests either compounding problems (wealth disparities, incarceration disparities) or different structures entirely.

After looking at these structures it becomes clear that many of them are not just negatively affecting people of color. Lani Guinier refers to the structural marginalization and disenfranchisement of people of color as a 'canary in the coal mine', warning us all of important failings in our political and social systems. "As the canary metaphor reminds us, by starting with the experience of people of color we can begin to identify the crucial missing elements of American democracy--missing elements that make the system fail not just for blacks or Latinos but for other groups that are similarly situated." (Guinier, 2007) To the extent that we truly understand how these structures concentrate both power and disadvantage, we all should recognize the dangers of leaving them intact.

In some ways it is clear that just as we have, as a society, decided racism is a past attitude problem that we have moved past, we have begun to pretend that the Civil Rights Movement was only about Jim Crow laws and where people get to sit on the bus. I can think of no better way to end my argument on why structural tools are vital for understanding race than with a quote from Martin Luther King, Jr. that shows that, in fact, the aim of the civil rights movement was always about changing the very foundational structures of the US:

#### STRUCTURAL RACISM (DRAFT) -- 31

"The black revolution is forcing America to face all its interrelated flaws – racism, poverty, militarism and materialism. It is exposing evils that are rooted deeply in the whole structure of society. It reveals systemic rather than superficial flaws and suggests that radical reconstruction of society itself is the real issue to be faced... There is no separate white path to power and fulfillment, short of social disaster, that does not share power with black aspirations for freedom and human dignity." *from* A Testament to Hope

## APPENDIX 1: SNAPSHOTS OF ENDURING DISPARITIES

- The typical Black family had 60% as much income as a white family in 1968, but only 58% as much in 2002.
- Black infants are almost two-and-a-half-times as likely as white infants to die before age one a greater gap than in 1970.
- At the slow rate that the Black-white under poverty gap has been narrowing since 1968, it would take until 2152, to close.
- For every white dollar earned, African Americans earned 55 cents in 1968 and only 57 cents in 2001.
- While white homeownership has jumped from 65% to 75% since 1970, Black homeownership has only risen from 42% to 48%. At this rate, it would take 1,664 years to close the homeownership gap – about 55 generations (if we assume a linear path).
- African-American men were 1.8x more likely than white men to be unemployed in 1980, by 2000 that had risen to 2.4x more likely – 2007 estimates indicate this has increased even further. If incarcerated populations are included in the jobless count, African-American men are now over 3x more likely than white men to be unemployed, a larger disparity than even the 1950s.
- The Black-White disparity in incarceration was close to 3-1 in 1930. Today it is higher than 8-1, and still increasing exponentially. Incarceration for drug-related offenses peaked at a 20-1 disparity in the mid 90s and is currently holding steady at 15-1. (In 2007, nearly 7% of African-American children had one or both parents *currently in prison*, a higher percentage than ever before in history)
- The likelihood of a poor African-American child living in concentrated poverty compared to her white counterpart was about 3x in the 1960s, it is now 7.2x.

SOURCES: State of the Dream 2004 (United for a Fair Economy), Census 2000, Sentencing Project

## APPENDIX 2: CAUSAL LOOP OVERVIEW



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