

RUNNING HEAD: Measuring Civic Engagement in a Historically Oppressed Population

Civic Duty and Participation through the Lens of Oppression: Measuring Civic Engagement in a  
Majority Black and Low-Income Population of Students in a High School Dropout Re-  
engagement Program

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**Abstract**

Documented differences in civic engagement across communities along lines of color and class pose significant challenges to maintaining the health of democracy and promoting social justice in the United States. The exact nature and causes of these civic gaps, however, are not well understood. Research on these gaps is hampered by the fact that extant measures of civic engagement do not account for the diverse conceptions and manifestations of civic engagement that may exist across different American sub-populations. The current study, therefore, sought to assess the validity and reliability of two measures of civic engagement, previously validated on a majority white, middle class sample of youth, using a new majority Black/African American and low-SES sample of youth participating in a high school dropout recovery program. Exploratory and subsequent Confirmatory Factor Analysis revealed that the two measures had different factor structures when validated on the new population. The restructured measures, however, did have good reliability and concurrent validity. The implications of these findings for theory, measurement, and future research, are discussed in light of several developmental theory frameworks.

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**Civic Duty and Participation through the Lens of Oppression: Measuring Civic Engagement in a Majority Black and Low-Income Population of Students in a Highschool Re-engagement Program**

Civic engagement is comprised of attitudes and behaviors focused on strengthening one's community or broader society (Zaff, Boyd, Li, Lerner, & Lerner, 2010). Gaps in civic engagement exist in America between communities along lines of race, ethnicity, income, and education (Levinson, 2010; Sullivan, 2014; Zaff, Hart, Flanagan, Youniss, & Levine, 2010). These gaps are particularly detrimental to the healthy development of low-SES individuals and communities of color, as well as to America as a whole (Flanagan, & Levine, 2010; Levine, 2013; Zaff, Youniss, & Gibson, 2009). These gaps must be closed, but a stronger research base is needed in order to understand how this might be accomplished. In particular, not enough is known about how civic engagement develops in youth of color, low-income youth, and non-college attending youth. The first step in building this necessary research base must be the development of measurement tools that are valid for populations most adversely affected by civic gaps. This study will, therefore, seek to validate two measures of civic engagement on a majority African American sample of youth, living in low-income neighborhoods, who have dropped out of high school, but are involved in a recovery program to complete a diploma.

Several civic gaps exist in the United States on the basis of race, ethnicity, and SES. The most pronounced gaps can be found between low and middle/high SES youth as defined by both education and income. For example, while youth voting has increased dramatically in recent elections, gaps based on SES have persisted. Specifically, 70% of young voters (between the age of 18 and 25) in 2008 were college educated despite being only 57% of the total youth population. Furthermore, only 6% of young voters had less than a high school diploma (Zaff et al., 2009). Similarly, 30% of college students engage in community service whereas only 8% of

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non-college attending youth do so (Flanagan & Levine, 2010; Zaff et al., 2009). Using income as an indicator of SES, the picture is similar. Low-income youth are less likely to have knowledge of American government, are less likely to participate in community service, and are less likely to vote than their middle- and upper-income peers (Atkins & Hart, 2003; Hart, Atkins, Markey, & Youniss, 2004; Levinson, 2010).

This is not just a gap in civic participation, but also in civic opportunities. Low-income youth are less likely than their middle- and high-income peers to attend schools that offer high quality civic education, opportunities to exercise leadership such as student government, and formal service activities (Hart & Kirschner, 2009; Kahne & Middaugh, 2008; McFarland & Starman, 2007; Verba, Schlotzman, & Brady, 1995). This opportunity gap extends beyond school-based civic activities. In fact, historically, the widening of civic gaps based on SES has coincided with the deterioration of civic institutions such as churches and labor unions, which have traditionally engaged post-high school working class youth (Levine, 2013; Zaff et al., 2010).

Differences in civic engagement based on race are more complex, but similarly problematic. Black youth, during the last 30 years, have registered to vote and voted consistently across elections at higher rates than any other racial or ethnic group including White youth (Marcelo, Lopez, & Kirby, 2007; Sullivan, 2014). Moreover, Black youth have been found to be more likely to raise money for charity and participate in protests than youth from other racial/ethnic groups (Lopez et al., 2006; Nie, Jun, & Stellick-Barry, 1996; Verba et al. 1995). Yet, Black youth who espouse interest in the political process remain disproportionately under-mobilized (Sullivan, 2014). That is, during the 2012 presidential election, Black youth who had high levels of stated commitment to political participation, were less likely to actually vote or

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volunteer for a campaign than White youth with similar intentions. This may be because civically committed Black youth were more likely to be low-income and thus less likely to be able to take off work to vote (Sullivan, 2014). Moreover, Black youth tend to lag White youth on other indicators of civic engagement. For instance, Black youth have been found to have less civic knowledge (Atkins & Hart, 2003; Levinson, 2010) and be less likely to participate in community service (Atkins & Hart, 2003) than White youth. Black youth are also less likely than White youth to express trust in public institutions (Marcelo et al., 2007). Lastly, while Black youth appear to have some civic advantages over other racial groups, it is important to remember that Black youth are disproportionately represented in the ranks of America's poor and working class, meaning that they are disproportionately likely to lack access to opportunities for civic engagement (Sullivan, 2014).

Understanding the civic gaps that exist in America is important for promoting both social justice and the healthy functioning of American democracy. From a social justice perspective, gaps in civic engagement represent gaps in opportunities for healthy individual and community development. From an individual standpoint, opportunity for civic engagement during youth represents an important asset (Sherrod, 2007) which can promote the development of critical thinking, social competence (Billig, Root, and Jesse, 2005), positive identity, social networks that facilitate academic success (Flanagan & Levine, 2010), and a sense of purpose and wellbeing (Levine, 2013). From a community perspective, communities comprised of civically disengaged individuals often do not have access to government decision-making processes and become politically marginalized (Levinson, 2010). Most importantly, adolescence is a particularly sensitive period for the development of habits and attitudes related to civic engagement (Zaff et al., 2009). Civic disengagement during youth can, therefore, deepen

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intergenerational cycles of non-participation (Zaff et al., 2009; Zaff et al., 2010). Understanding gaps in civic engagement is, therefore, important for ensuring equity in access to an important asset, as well as equal voice in political decision making across diverse communities.

Understanding civic gaps is also important for promoting the health of America as a democratic society. Communities that are comprised of civically engaged individuals are socially cohesive and able to mobilize to confront social problems (Levine, 2013; Putnam, 1995). For instance, one study found that more civically engaged communities were better able to weather the effects of the recent “Great Recession” than less engaged communities (Levine, 2013). Furthermore, when youth are civically engaged, they can contribute to their communities by helping to confront problems, such as school dropout and youth violence, and maintain political stability by channeling discontent into constructive channels (Flanagan & Levine, 2010). More generally, when individuals participate in the political process and are prepared to give their time in service to their country and communities, they can help to ensure that public institutions are effective, transparent, and accountable (Levine, 2013). Civically engaged individuals can lend expertise of local conditions to formulating solutions to community problems, minimize corruption by monitoring public officials, and unlock resources by volunteering their time (Levine, 2013). The existence of gaps in civic engagement, therefore, means that entire swaths of the American people are not being engaged in these processes of maintaining and improving public institutions and communities, robbing American society of valuable energy and resources.

It is problematic that gaps in youth civic engagement exist between communities in America based on race/ethnicity, income, and education. These gaps are an ongoing social issue with implications for the well-being of individuals, communities, and American society as a whole. This study, therefore, examined the measurement of civic engagement in a population of

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predominantly Black youth, living in low-income neighborhoods, who have dropped out of high school, but are currently attending re-engagement centers to complete their high school diploma.

The current study addressed this issue by validating two measures of civic engagement; the Civic Duty and Civic Participation subscales of the Active Engaged Citizenship (AEC) measure (Zaff, et. al., 2010). In addition to these two subscales, AEC also assesses Neighborhood Social Connections and Civic Skills. A diagram of AEC's structure can be found in Figure 1. Rooted in Eriksonian ego identity theory and German action theories which posit that thoughts, feelings, and actions are interconnected, AEC was constructed for the purpose of providing a holistic measure of civic engagement. As such, the measure integrates assessment of civic behaviors with the cognitive, emotional, and social motivations behind that behavior (Zaff, et. al., 2010). AEC was previously validated through a longitudinal survey study assessing the influence of participation in the national youth development organization 4H on developmental outcomes. The participants in this original validation study were predominantly White (69.6%) and female (62.4%), and mostly located in rural (52.1%) or suburban (30.3%) communities. In terms of socioeconomic status, 52.1% of participants' mothers had some post-secondary education (Zaff, et. al., 2010). In the present study, a theoretical case is proposed for why this measure may have different psychometric properties in a population that is majority Black/African American, urban, and low-income; The study then validated parts of the measure on a sample drawn from that population.

### **Review of Empirical Literature**

#### **Civic Engagement from a PYD and Ecological Systems Perspective**

Civic engagement research has been shaped, throughout much of its history, by political socialization theories. These theories, which date back to the 1950s, hold that the process by

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which individuals develop civically can largely be characterized as the transmission of civic behaviors and values from one generation to another (Zaff, et. al, 2010). In other words, through their participation in schools and families, young people learn to trust existing institutions. Youth, in turn, internalize those institutions' beliefs about what it means to be a good citizen, forming habits in accordance with the norms and examples of those around them (Zaff. et al., 2010). According to this theoretical perspective, loyalties to political systems are forged early in life through identification with authority figures in families and schools. Early childhood was, therefore, viewed as the most politically formative period in an individual's lifespan (Flanagan & Sherrod, 1998). The Political Socialization process was, furthermore, viewed as maintaining social and political continuity over the course of history, through the integration of young people into societal institutions and the fostering of widespread support for existing social systems and values.

Those working within the Political Socialization Framework came to view young people as passive recipients of political norms whose political values and behaviors crystalized relatively early in life. Moreover, the focus of political socialization research on explicitly political behavior resulted in a fairly narrow field of civic engagement study (Flanagan & Sherrod, 1998). The 1970s, however, ushered in a new era in which researchers studying the student activists of the 1960s began to ask questions about how young people broke from the traditions of their elders and created systemic political and social change (Flanagan & Sherrod, 1998; Watts & Flanagan, 2007). Researchers working in this vein concluded that adolescence provided an extended period in which young people were not fully integrated into the existing political order. Thus, they were able to experiment with different political loyalties, resulting in rebellion against the existing political order and providing a driver for social and political change

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(Flanagan & Sherrod, 1998). Therefore, perspectives from this era focused on adolescence as the critical period for civic development, understood the individual as highly agentic in choosing political affiliations, and focused research on understanding political change rather than stability.

More recently, researchers have pointed out the need for new theories of civic development that recognize the agency of young people, can explain and describe how young people work to make positive changes in the world, and can encompass multiple ecological influences (e.g. Flanagan, 2003; Watts & Flanagan, 2007; Zaff et al., 2009). As a result, recent theoretical and empirical research has painted a far more complex picture of how civic engagement develops. The newer emerging research paradigms are characterized by several trends. First, civic engagement has been more broadly defined to include values and behaviors beyond those associated with political participation. Second, political/social change and stability have both become equally important foci of research in the last few decades. Third, the role of individual agency in civic development is increasingly being explored in the context of diverse contextual factors and early individual experiences

Calls have been made to for “civic engagement” to encompass a more fully “civic” definition. Whereas older political socialization theories focused their inquiry on political participation, newer civic engagement research embraces a more expansive definition of civic life, which includes political participation, but also additional means of interacting with others to improve the world, such as patterns of group affiliation, skills related to achieving group goals, and knowledge of community issues (Flanagan & Faison, 2001; Flanagan & Sherrod, 1998). Many researchers have heeded this call, studying charitable giving (Brooks, 2005), sense of group identification (e.g. Kirschner, 2009), and group problem solving skills (e.g. Larson & Hanson, 2005) as important components of civic engagement. Most importantly, volunteer

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community service has also emerged as a particularly salient and often researched civic outcome (e.g. Atkins & Hart, 2003; Fredericks & Eccles, 2010; Gibson, 2008; Lewis, MacGregor, & Putnam, 2013).

The interacting roles of continuity, change, agency, and environment in the process of civic development are also becoming important foci for recent civic engagement research. For instance, work by scholars of youth organizing initiatives have studied many ways in which young people exercise agency to change the social status quo around them (e.g. Kirschner, 2005; Larson & Hanson, 2005; Watts, Griffiths, & Abdul-Adil, 1999). Many of these scholars emphasize that young people develop civic skills, values, and motivation through a process known as “civic praxis” in which youth engage in a cycle of taking action with others and then critically reflecting on that action, building new civic capacity with each iteration (e.g. Hanson & Larson, 2005; Watts, Griffiths, & Abdul-Adil, 1999).

Theories of civic development have also begun to embrace paradigms in which civic behaviors that promote social change simultaneously arise from the exercise of agency and the internalization of values present in an individual’s early environment. An individual’s civic behaviors, therefore, can embody both civic continuity and change (Flanagan, 2003). For example, studies have found that student activists from the 1960s who were viewed as exercising agency and attempting to turn America’s political system on its head were in fact acting to preserve values of tolerance and compassion passed on to them in childhood by parents and teachers (Flanagan, 2003). These young people simply re-interpreted the values of their elders in the light of new historical conditions.

Finally, renewed interest in the promotion of civic engagement at the policy level during the 1990s and the research that has come in its wake has begun to reveal that an array of factors

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and processes influence civic development beyond the simple transmission of, or rebellion against the political habits and values of an individual's parents' generation. For example, personality (Matsuba, Hart, & Atkins, 2007), social connections (Duke et al., 2009), and access to civic organizations (McBride, Sherraden, & Pritzker, 2006) have all been found to influence the development of civic engagement in youth. Newer conceptions of civic development, incorporating many of the ideas from Positive Youth Development (PYD) and Bioecological Systems Theory perspectives have therefore become more expansive to include the whole range of influences present in an individual's ecology.

The Bioecological perspective (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006), asserts that an individual's development is influenced by multiple layers of the environment within which he or she is embedded. These layers of influence range from more proximal influences (e.g., families, peers, teachers), to more distal influences (e.g., historical events, public policies, cultural norms). Just as importantly, the developing individual constitutes his or her own level of this ecology, so his or her decisions influence his or her own development as well as that of the surrounding environment (Bronfenbrenner & Morris, 2006). Human development is, therefore, a function of the interaction between person and context (Bronfenbrenner & Morris, 2006). In line with this perspective, contemporary scholars of civic engagement have stressed the need to assess civic engagement in multiple contexts, diverse influences on civic development at different ecological levels, interaction between person and context, and ways in which youth exercise agency in civic contexts (e.g., Sherrod, Flanagan, & Youniss, 2002; Watts & Flanagan, 2007; Zaff, et. al, 2010). A growing number of studies have simultaneously assessed the influence of families, poverty, schools, social capital, structural opportunities, and place in the life-span on civic development (e.g., Duke, Skay, Pettingell, & Borrowski, 2009;

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Lenzi, Alessio, Pastore, & Santinello 2013; Mahatmya & Lohman, 2012; Sherraden, McBride, & Prtizker, 2006). Studies are also beginning to assess multiple aspects of civic engagement, such as attitudes and behaviors (e.g., Lenzi et al., 2013; Matsuba et al., 2007; Zaff et al., 2011), and examine how individual and contextual level variables interact with one another to influence civic development (e.g. Diemer & Li, 2011; Hart et al., 2004; Mahatmya & Lohman, 2012; Matsuba et al., 2007; Wilkenfeld, 2009).

The PYD perspective builds upon the ideas of Bioecological Systems Theory and stresses that where contextual supports are present and aligned with the existing strengths of individual youth, all youth can develop positive capacities and act as assets to their communities by working with others to develop greater community capacity to support healthy youth development (Lerner, 2004; Sherrod, 2007). Civic engagement in youth is, therefore, not only a positive developmental outcome, but also the main avenue through which youth act as assets and contribute to their communities (Flanagan & Levine, 2010; Sherrod, 2007). The PYD perspective, therefore, stresses that youth should be seen as full members of the communities in which they live, bearing a full share of rights and responsibilities (Damon, 2004). In empirical research, several civic engagement scholars studying youth organizing programs have echoed the need to view youth as assets and full participating community members by studying the role of individual agency in the civic development of youth, as well as how young people act to change the world around them (e.g., Christens & Dolan, 2011; Ginwright & Cammarota, 2007; Kirshner, 2005; 2009; Larson & Hansen, 2005; Watts, Griffiths, & Abdul-Adil 1999).

From a measurement standpoint, ecologically oriented researchers of civic engagement have conceptualized civic engagement as being multi-dimensional. In particular, newer measures of civic engagement have attempted to capture both civic attitudes and civic behaviors as

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indicators of overall civic engagement. Civic behavior measures, often also referred to as civic participation, tend to assess the frequency with which youth engage in civically oriented actions such as voting (e.g., Smith, 1999), giving to charity (e.g., Gibson, 2008), or volunteering for community service (e.g., Atkins & Hart, 2003; Lewis, MacGregor, & Putnam, 2013; Matsuba et al., 2007). Less commonly, measures may also assess frequency of organizational membership (e.g., Fredericks & Eccles, 2010; Zaff et al. 2010), petition-signing (e.g., Kerestes, Youniss, & Metz, 2004), or protesting (e.g., Brooks, 2005).

Civic attitudes, by contrast, focus on the thoughts and feelings that individuals have about civic engagement. These measures, commonly referred to as civic commitment (e.g., Flanagan, Cumsille, Gill, & Galloway, 2007), civic responsibility (e.g., Lenzi et al., 2013), and civic duty (Zaff et al., 2010), assess the extent to which young people feel a sense of obligation or aspiration to improve the world around them. Civic duty is important for the measurement of civic engagement from a theoretical standpoint because it allows for some assessment of the motivation behind civic behaviors. A person's underlying motivation for civic behaviors indicates the depth of their engagement and may be an indicator of whether civic engagement behaviors persist across the lifespan or in the face of barriers to civic participation (Sherrod et al., 2002; Zaff et al., 2010).

A number of factors at different ecological levels have been found to correlate with both civic duty and civic participation. Connection to parents has been found in several studies with diverse samples to be a particularly strong correlate of civic values similar to civic duty (e.g., Duke, et. al., 2009; Mahatmya & Lohman, 2012; Smith, 1999). Furthermore, religious participation has been found, across several studies, to correlate strongly with civic participation (e.g., Gibson, 2008; Kerestes, Youniss, & Metz, 2004; Lewis, Macgregor, & Putnam, 2013).

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These constructs represent a useful standpoint from which to assess the concurrent validity of potential civic duty and civic participation measures.

### **Incorporating Lived Experience: Diversity and Measuring Civic Engagement**

Ecological and PYD perspectives on developmental civic engagement research represent progress in the development of theory and measurement around this phenomenon, but they are not beyond critique. The PYD approach and current applications of ecological approaches have been criticized for failing to incorporate an understanding of how oppression may shape how civic engagement is conceptualized and develops within historically oppressed populations, such as low-income communities and communities of color (Ginwright, Cammarota, & Noguera, 2005; Watts, Diemer, & Voight, 2011; Watts & Flanagan, 2007). Oppression refers to a process in which power is exercised unjustly by one group over another, as well as to the outcomes and circumstances that arise from this process (Watts, Abdul-Adil, & Pratt, 2002). In civic engagement research, little attention has been given to the fact that oppressed youth often experience structural barriers to civic development, such as police harassment and schools that lack democratic decision making structures (Ginwright, 2007). Existing frameworks for studying the development of civic engagement, therefore, often focus their attention on forms of civic engagement that favor formal institutions and the maintenance of the social status quo (Watts & Flanagan, 2007). This state of affairs may result in measures of civic engagement that do not capture forms of engagement such as civil disobedience, which may arise from the experience of oppression, are not mediated by formal institutions, and, therefore, are aimed at disrupting the social status quo (Ginwright, Cammarota, & Noguera, 2005; Watts & Flanagan, 2007).

The Phenomenological Variant on Ecological Systems Theory (PVEST) offers one way to reconcile current PYD and ecological systems frameworks for studying civic engagement with

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their critiques. PVEST is based in Bronfenbrenner's Ecological Systems Theory (Bronfenbrenner, 1979), but expands upon it, by emphasizing that past experiences shape individuals' worldviews. These worldviews ultimately inform the meaning that individuals make of their experiences, impact how they interact with their context, and influence their developmental outcomes (Spencer, 2006). Moreover, this framework emphasizes the need not to treat particular contextual configurations or developmental trajectories as normative and to understand all developmental phenomena within their relevant contexts (Spencer, 2006). More specifically, this theory has stressed that individuals from different social classes and ethnic backgrounds often develop in very different contexts and that these variations in contexts can powerfully shape individuals' worldviews and influence the processes and outcomes of their development (Spencer, 2006).

The PVEST framework, therefore, provides a theoretical rationale for why civic engagement may take on different meaning in historically oppressed communities. Indeed, a number of theorists have advocated theoretical frameworks that can integrate an understanding of the distinctness of civic engagement in historically oppressed communities from civic engagement in communities more integrated into the American mainstream. From a PVEST perspective, varying levels of experienced oppression can lead to different experiences with democratic institutions, and ultimately influence individuals' conceptions of what it means to be an American. For instance, the experience of racism can shape an individual's identity as a citizen (Spencer, 2011). Accordingly, scholars of civic engagement in historically oppressed contexts have stressed the ways in which the experience of oppression shapes individuals' conceptualization of civic engagement, as well as their civic development (e.g. Fox, Mediratta, Ruglis, Stoudt, Shah, & Fine, 2010; Ginwright, 2007; Ginwright & Cammarota, 2007;

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Ginwright, Cammarota, & Noguera, 2005; Watts, Abdul-Adil, & Pratt, 2002; Watts, Diemer, & Voight, 2011; Watts & Flanagan, 2007).

For instance, Ginwright and Cammarota's (2002;2007) Social Justice Youth Development Framework emphasizes that understanding civic development among youth of color requires understanding how those youth exercise agency within the context of life experiences that are often shaped by violence, discrimination, and other forms of oppression. In particular, they assert that adaptive civic development for youth of color requires building skills for recognizing the systems of oppression that shape their lives and taking action with youth struggling under similar circumstances to change the status quo (Ginwright & Cammarota, 2002). The result is a cycle of "civic praxis" in which civic action and critical reflection drive young people to better understand the conditions prevalent in the communities in which they live and their own ability to change those conditions (Ginwright & Cammarota, 2002; 2007). Most importantly, among youth of color living in contexts characterized by the frequent experience of oppression, conceptions of civic engagement and means of civic participation aimed at upsetting the social status quo take on greater salience than they would among white youth who do not experience oppression with the same frequency (Ginwright & Cammarota, 2002).

Theories of civic development in oppressed contexts suggest that the diversity of experiences across communities vis-a-vis oppression may create some issues of measurement that must be addressed in order to effectively carry out civic engagement research across diverse communities. Specifically, the psychometric properties of survey-based civic engagement measures may differ across communities on the basis of race, ethnicity, and SES in three important ways: (1) conceptualizations of civic duty and civic participation may vary across populations, posing challenges to measures' structural validity; (2) the relationship between

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indicators of civic engagement may vary across populations; and (3) the relationship between civic engagement and known correlates may also vary across populations posing challenges to concurrent validity.

How civic duty is conceptualized may differ across communities, resulting in some challenges to structural validity when measuring this construct. Different kinds of communities may have different values and different definitions of what it means to exhibit civic duty (Torney-Purta et al., 2010). In particular, the experience of racial oppression may influence minority youth to identify with their respective racial groups rather than with the broader polity (Stepick & Stepick, 2002). Civic duty in oppressed racial minorities may therefore arise from a politicized racial consciousness rather than from a sense of obligation to society as a whole (Ginwright, Cammarota, & Noguera, 2005; Levinson, 2010; Watts, Abdul-Adil, & Pratt, 2002). Measures assessing civic duty, however, tend to be formulated based on the assumption that the obligations and aspirations that constitute civic duty are universal in nature, rather than specific to one community or another (See Zaff et al., 2010). It is, therefore, possible that these different understandings of civic duty may result in the assumption of measurement invariance (i.e. the assumption that when a measure is used to assess two different groups it is assessing the same underlying psychological construct in both groups; see Milfont & Fischer, 2010) not holding across communities on the basis of race.

Forms of civic participation may also vary across diverse communities, resulting in challenges to the structural validity of measures of that construct. The experience of oppression may promote kinds of civic participation in low-SES communities of color that are less recognized in whiter, more educated, and more affluent communities. Specifically, state institutions in historically oppressed communities may fail to cultivate, or even actively obstruct,

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civic participation through police harassment or what are perceived as draconian school-discipline policies (Ginwright & Cammarota, 2007; Ginwright, 2007; Watts & Flanagan, 2007). Productive civic engagement for youth living in these communities can, therefore, take on the form of resistance to oppression mediated by informal associations, rather than activities aimed at maintaining the status quo mediated by existing formal institutions (Ginwright & Cammarota, 2007; Ginwright, 2007; Watts & Flanagan, 2007). Civil disobedience, protest, and mass political education through informal associations such as hip hop clubs or dance crews may therefore, be more prevalent in historically oppressed communities than they might be in others (Ginwright, 2007). Moreover, because recognition of oppression is critical for resisting it, building an awareness of oppression may constitute an important form of civic participation for youth experiencing oppression (Watts, Abdul, Adil, & Pratt, 2002; Watts, Diemer, & Voight, 2011). Measures of civic participation validated on White or middle income youth may not capture these important forms of civic participation and therefore may exhibit measurement invariance along racial and socio-economic lines.

The relationship between indicators of civic engagement may differ across communities, thus posing another challenge to the structural validity of measures of different aspects of civic engagement. For instance, civic duty and civic participation have been found to be indicators of overall civic engagement, which correlate strongly with one another (Zaff et al., 2010). However, youth with a strong sense of civic duty living in poverty may experience barriers to civic participation that their middle class counterparts do not, such as lack of time to vote or volunteer due to the need to earn income, or lack of institutional opportunities to participate civically (McBride, Sherraden, & Pritzker, 2006; Sullivan, 2014). Moreover, race may also be associated with similar barriers to participation. For instance, Black youth with high levels of interest in

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civic engagement have been found to be more likely to be under-mobilized in terms of voting than White youth (Sullivan, 2014). Moreover, whereas civic duty measures often assess a commitment to helping others, it has been theorized that the impetus for civic participation among youth in historically oppressed communities may stem less from a sense of other-oriented civic duty and more from a reframing of personal problems, such as poor access to education and social services as political problems shared with a racial or economic group (e.g. Ginwright & Cammarota, 2007). These notions all suggest that different aspects of civic engagement (i.e., duty and participation) may relate differently to one another in socio-economically marginalized and racial minority populations than they do for youth in Whiter, more affluent communities (Fox et al., 2010).

Finally, SES and race have both been found to moderate the effects of some factors on the development of civic engagement (e.g. Diemer & Li, 2011; Flanagan, Cumsille, Gil, & Gallay, 2007; Hart et al., 2004; Mahatmya & Lohman, 2012; Wilkenfeld, 2009), posing some challenges for establishing the concurrent validity of potential civic engagement measures. For instance, high ratios of youth-to-adults in a community have been found to be detrimental to the development of civic engagement, but only for youth living in economically distressed communities (Hart et al., 2004). Moreover, the magnitude of the influence that access to social capital has on civic development may vary by an individual's socio-economic status (Mahatmya & Lohman, 2012). When race is considered as a moderator, conversations at home and school about political issues have a stronger relationship to young people's likelihood of engaging in protest activities among youth of color than among White youth (Diemer & Li, 2011). Measures of both civic participation and civic duty may, therefore, require the use of different constructs and criteria for establishing concurrent or predictive validity for different samples depending on

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the racial and socio-economic composition of the samples on which those measures are being validated.

It is clear from a theoretical standpoint that civic participation and civic duty may differ across communities in how they are conceptualized, how they are instantiated, how they are related to one another, and with what other factors they correlate. Measures of civic engagement validated on predominantly middle-class White samples may, therefore, not have the same psychometric properties when used to assess civic engagement in populations where the experience of oppression is more common place, such as racial/ethnic minorities, or low-SES youth. Validating measures of civic engagement on historically oppressed populations is, therefore, critical for promoting a broader understanding of youth civic engagement and addressing America's civic gaps. (Watts, Diemer, & Voight, 2011; Watts & Flanagan, 2007).

### **The Current Study**

Although rigorous qualitative research has been conducted with educationally disadvantaged minority youth living in low-income communities (e.g., Kirschner, 2005; Kirschner, 2009; Mediratta, McAlister, & Shah, 2009; Watts & Abdul-Adil, 1998), quantitative studies in this area are rare (Zaff et al., 2009). Existing quantitative research on civic engagement in historically oppressed youth populations has focused on the specific construct of critical consciousness as an outcome (e.g., Diemer & Li, 2011) or compared low-income and minority youth to middle income and White youth using measures validated on only White youth (e.g., Atkins & Hart, 2003; Hart et al., 2004; Mahatmya & Lohman, 2012). The need for the development of theoretically predicated and psychometrically sound measures of youth civic engagement, as well as their use across studies and communities (Torney-Purta, Amadea, &

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Andolina, 2010; Wilkenfeld, Laukhardt, & Torney-Puerta, 2010) is, then, particularly salient for the study of youth from historically oppressed populations.

The current study addressed this need by examining the validity and reliability of two measures of civic engagement (Civic Participation and Civic Duty) on a population that is comprised primarily of African-American youth who have re-engaged in school after previously dropping out. These youth also lived in primarily low-income neighborhoods and came from families with low levels of parental education. To assess the validity and reliability of these two measures I examined four questions: (1) What are the factor structures of Civic Participation and Civic Duty measures in a population of predominantly African American youth, living in low-income neighborhoods, who have re-engaged with school after having dropped out?; (2) How do Civic Duty and Civic Participation relate to one another in this population?; (3) Do the Civic Participation and Civic Duty measures have concurrent validity in this population?; (4) Are the Civic Duty and Civic Participation measures reliable when used with this population?

## **Method**

### **Context for Study**

The current study was carried out in partnership with a network of schools that specializes in serving the needs of youth who have dropped out of high school and are attempting to re-engage with school to attain a high school diploma. These schools, located in several urban areas in Ohio, Illinois, New Jersey and North Carolina, meet the needs of re-engaging students by offering blended learning (i.e. personalized computer-based instruction) with a flexible class schedule. Staff mentors are also present at the schools to monitor students' progress, provide social support, and connect students to necessary services, as well as provide educational enrichment and community service opportunities.

## Data Collection

Data for the current study were drawn from a larger longitudinal study of the relationships between both attitudinal and relational assets and academic and civic outcomes among economically marginalized minority youth who had dropped out of school. All data were derived from an on-line questionnaire administered during the spring semester of the 2014 school year. Students were notified of the survey and encouraged by the teachers and other staff to complete the survey. The survey was split in half and each half was administered separately on different days in order to promote a high completion rate. The Civic Duty and Civic Participation measures were each split in half, with each half being administered on a different day.

## Participants

The sample for the proposed study consisted of 838 youth attending 12 schools located in Cincinnati, OH, Columbus, OH, Cleveland, OH, Chicago, IL, Bridgeton, NJ, and Durham, NC. The mean age of these students was 16 years ( $M = 16.00$ ;  $SD = 1.90$  years); 49.8% of participants were female. Of the 838 participants, 76% identified as African American, 18% as White, 2% as Asian, and 11% as Hispanic. A majority (69.3%) of participants came from families where the mother had a high school diploma or less. Among the neighborhoods in which participants lived, the mean percentage of households falling below the federal poverty level was 31.9% ( $SD = 8.6\%$ ).

## Measures

All of the measures used in this study are based on self-reports to the online survey.

**Active and Engaged Citizenship.** The Active and Engaged Citizenship measure (AEC; Zaff et al., 2010) represents an attempt to assess deep engagement with civic life beyond civic

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behaviors. As such, it is consistent with both Bioecological and PYD perspectives on the measurement of civic engagement. It is consistent with ecological perspectives in two senses: (1) It draws upon German action and developmental systems theories to take a multi-faceted approach to assessing civic engagement by conceptualizing it as individual (in terms of sense of duty and civic skills), institutional (in terms of participation), and relational (in terms of social connections); (2) Within the Civic Participation subscale of the measure, civic engagement is assessed within different microsystems (e.g. schools, neighborhoods, and religious institutions) (Zaff et al., 2010). The measure is consistent with a PYD perspective in that it assesses the development of capacities that allow youth to make a positive contribution to their communities and society as a whole. Furthermore, the creation of the measure was rooted in an attempt to assess mutually beneficial person  $\leftrightarrow$  context relations or adaptive developmental regulations in the civic sphere, consistent with the PYD approach to civic engagement research (Zaff et al., 2010).

AEC consists of four latent factors (Civic Participation, Civic Duty, Civic Skills, and Neighborhood Social Connection) all of which load onto a single, second-order latent factor (AEC). This measure was previously validated as part of larger developmental survey of a sample of youth participating in 4H, previously described in the introduction. The validation procedures included a Confirmatory Factor Analysis (CFA) using the initial wave of data to validate the factor structure. Additionally, a CFA in which factor loadings were set as equal for males and females was used to test for measurement invariance across gender and a longitudinal CFA with subsequent waves of data was used to test for measurement invariance across time. Additionally, reliability (internal consistency) of the measure was tested by computing alpha values for each subscale. The four-factor model was found to have good fit with the data and to

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be invariant across time. The measure exhibited good fit for both male and female participants, and was structurally invariant between the two groups. However, a final factor model in which intercepts for all measured variables were set as equal across males and females resulted in a reduction in model fit, indicating that male and female scores at baseline were not equivalent (Zaff et al., 2010). Each subscale had good reliability across time. Sub-samples of ethnic minority and low-income participants were too small to allow for sub-group analyses by socioeconomic status or race/ethnicity.

The current study was concerned with the Civic Duty and Civic Participation sub-scales of the AEC measure. Some benefit may be gained from validating the measure as a whole. However, the data for this study were derived from a larger study that assessed a number of developmental assets and outcomes. When the larger study was being designed, the decision was made to include only part of the AEC measure to keep the questionnaire short and facilitate consistent completion of whole questionnaire. The Civic Duty and Civic Participation subscales were selected because the larger study in which they were included was focused on civic duty and civic participation.

*Civic Duty.* Civic Duty measures the extent to which participants feel a “deep sense of obligation to give back to their communities,” (Zaff et al., 2010). Civic Duty was measured using a twelve-item sub-scale from Zaff and colleague’s (2010) Active and Engaged Citizenship measure. One example item from this scale is “I often think about doing things so that people in the future can have things better.” Answers to these questions were given on a six point scale (1 = “*strongly disagree*,” 6 = “*strongly agree*”). Items six and 10 of the Civic Duty scale were negatively worded (e.g. “When I see someone being treated unfairly, I don’t feel sorry for them.”) These two items were therefore reverse coded for the purposes of analysis.

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*Civic Participation.* Civic Participation assessed the extent to which participants engaged in activities that were aimed at strengthening or maintaining the communities in which they lived. This is an eight-item sub-scale from Zaff and colleague's (2010) Active and Engaged Citizenship measure. One sample question from this measure is "How often do you help out at your church, synagogue or other place of worship?" Responses were given on a six-point scale ( $1 = \text{never}$ ,  $6 = \text{very often}$ ).

**Measures of Concurrent Validity.** Measures of parent social support and religious participation were used to assess concurrent validity. Support from parents has been found in several studies to be a consistent predictor of adolescents' sense of civic duty (e.g., Duke, et. al., 2009; Mahatmya & Lohman, 2012; Smith, 1999). Associations between these two variables have generally been significant but modest (e.g.,  $r = .11$ ,  $p < .05$ ; Mahatmya & Lohman, 2012). The questionnaire used for the current study includes a 5-item scale adapted from Procidano and Heller's (1983) Perceived Social Support from Family measure, which assesses the extent to which youth perceive themselves as having a positive relationship with their parents characterized by sharing and emotional support. A sample item from this scale is "I rely upon my Mother/Father/Guardian for emotional support." Responses were given on a six-point scale ( $1 = \text{"strongly disagree"}$ ,  $6 = \text{"strongly agree"}$ ). This measure has been found to have good validity and reliability (Procidano & Heller, 1983) and has been used across several studies to assess the quality of relationships between parents and children (e.g. Gavazzi, 1994; Sheets & Mohr, 2009).

Participation in religious institutions has also been found across several studies to be a modest to moderate (e.g.,  $\beta = .25$ ,  $p < .05$ ; Gibson, 2008) predictor of an individual's civic participation (e.g., Gibson, 2008; Kerestes, Youniss, & Metz, 2004; Lewis et al., 2013; Lewis, Macgregor, & Putnam, 2013). The religious participation measure, in contrast to the Parent

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Social Support scale, is a single item asking participants to “Please indicate the number of hours you spent per week in religious organizations?” Responses ranged continuously from zero to 40+ hours per week. It is often desirable to test concurrent validity with multi-item measures.

However, of the variables available in the current study’s existing dataset, religious participation has the most support in the literature as a predictor of civic participation. Moreover, previous studies have successfully used similar single item measures to find associations between religious and civic participation (e.g. Gibson, 2008; Lewis, et. al., 2013).

### **Analytic Plan**

I tested the structural validity of the two civic engagement measures using both Exploratory and Confirmatory Factor Analysis. Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) are both procedures used to model the observed co-variation among variables as a function of latent constructs (Bandalos & Finney, 2010). EFA is less restrictive than CFA, and largely describes the shared variance between measured variables. Therefore, EFA is used to generate hypotheses about the factor structure of sets of measured variables. CFA, by contrast, is more restrictive in that it requires the specification of paths between measured variables and latent constructs, and allows for the specification of paths between latent constructs (i.e. second order latent constructs), as well as for covariance between the error terms of measured variables. CFA is used to test hypotheses about the structure of latent factors (Bandalos & Finney, 2010).

When conducting a CFA, a researcher will usually test several potential models, each defined by a different number of factors. Using theory and/or previous empirical work as a guide, a researcher will start with a model that is likely to provide the best solution, but test models with one to two more factors, as well as one to two fewer factors than the original model.

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A researcher then chooses the best solution, based on a number of criteria, the most important of which is the model that results in the most consistent pattern of each item loading strongly onto a single factor. Similarly, when conducting a CFA, a researcher will test a hypothesized best-fit model generated by an EFA.

In all models tested in a CFA, paths between items and factors are specified. In a CFA, global fit indices are generated, which can be used to compare goodness of fit between models. Modification indices are also generated. Using these and theory as a guide post, a researcher, upon testing a hypothesized best-fit model, may also make slight modifications to the model, such as allowing the error terms of items with similar wording to co-vary.

It is recommended that EFA be used where theory or previous research about scales are weak (Bandalos & Finney, 2010). The measures being examined in this study have been previously validated, but with a substantially different sample. From a theoretical standpoint, as discussed above, there is reason to believe that it is possible that these measures may work differently for different populations. I, therefore, could not assume that the factor structure would remain the same in this new population. For this reason, an EFA was appropriate for initially examining the factor structure of the measures in question. Based on the factors identified in the EFA, I then conducted a CFA to confirm the factor structure. It is considered inadvisable to perform EFA and CFA on the same data, due to the fact that a CFA done on the same data as an EFA is too likely to fit the theory generated by the EFA and does not provide a true cross validation (Howell, 2012). For this reason, I randomly sampled half of this study's 838 participants surveyed in the spring of 2014. This random sub-sample was then subjected to an EFA using SPSS (version 21) in order to determine whether the factor structure of the two civic engagement measures remained constant for the new population. These sub-samples were also

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subjected to a series of Chi Square and T-Tests to assess their equivalence to one another in terms of participant' demographic characteristics and questionnaire responses.

The EFA was run four times to determine the theoretical factor structure of the items; first with two factors (the number indicated by the previous validation study), as well as with one, three, and four factors. I used Principal Axis Factoring as the extraction method to maximize the common variance between items (Bandalos & Finney, 2010). Because my indicators and constructs were theoretically related, I used an oblique rotation method. Several indicators were used to determine the optimal number of factors. First a scree-plot, or graph in which Eigen values are plotted against number of factors, was used to visually ascertain where Eigen values stopped substantially decreasing (Courtney, 2013). The correlation between factors was also used, as high correlations (greater than 0.7) suggest redundancy. Additionally, communality values were used (i.e. the variance in each measured variable explained by the extracted factors; Bandalos & Finney, 2010). The model that produced the most communalities over .50 was likely a good solution. Last, both pattern coefficients (i.e., the unique relationship between a measured variable and a factor controlling for all other measured variables) and structural coefficients (i.e., the zero-order correlation between a measured variable and a factor; Bartalos & Finney, 2010) were used to determine the number of factors. That is, the factor solution that produced a pattern of each item loading strongly onto a single factor was selected as the best solution. These two coefficients were also used to eliminate measured variables, where necessary. Measured variables that did not load strongly (i.e. below .50) onto any factor were evaluated for elimination.

After the factor structure of these two measures was determined for the new population, the model that appeared to be the best fit to the data was subjected to a CFA with the remaining

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419 participants, using the MPlus (Version 7) software platform (Methuen & Methuen, 2007). Because the current study included only two of the four civic engagement measures from the original AEC validation study, only first order latent factors were investigated with the new sample. This procedure generated several model fit indices, which were used to determine whether the best fit model generated by the EFA fit the data, as well as modification indices which suggested ways in which model fit might be improved. A Chi Square tested the hypothesis that the model implied covariance matrix matched that in the population (Geiser, 2013). The Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) both assessed the extent to which a specified factor model fit the data better than an independent model (in which variables are uncorrelated), with values above .90 indicating a reasonably good model fit (Geiser, 2013; Hu & Beltler, 1999). The Standardized Root Mean Square Residuals (SRMR) evaluated the model's residuals with low values (i.e. below .10) indicating more variance explained by the model and thus a good model fit (Geiser, 2013). Finally the Root Mean Square Error of Approximation (RMSEA) coefficient which is similar to the SRMR, but accounts for model complexity (i.e. the tendency of adding model specifications to increase fit; Bandalos & Finney, 2010), was used as well. Values of the RMSEA below .05 indicated good model fit (Geiser, 2013).

Each fit index has different pros and cons. Many methodologists have criticized the Chi Square Test for being too stringent in that it assumes a perfect fit to the population and is very sensitive to sample size (Bandalos & Finney, 2010). The RMSEA, may be the most reasonably conservative fit index in that it takes into account model complexity. However, there is not necessarily good agreement on which indices are best. It is, therefore, recommended to assess the range of fit indices together (Bandalos & Finney, 2010).

Finally, once the measurement model was established, I used SPSS to test each measure's concurrent validity. I computed mean scores for each scale and then produced bivariate correlations between Civic Duty measures and Parent Social Support, as well as between Civic Participation measures and Religious Participation. These were done with manifest variables. Religious participation was the best documented predictor of civic participation available in my existing dataset, so while it is often desirable to do this kind of validation with latent variables, this procedure was not possible in this case, because religious participation is a single item. Finally, I tested the internal consistency (reliability) of the constructs by using SPSS to obtain Cronbach's alpha values for each scale.

## Results

The current study examined the factor structure of twenty items, initially used to assess civic engagement in a predominantly white, middle class, and rural/suburban sample of youth, when used with a Black, urban, and low-SES sample of youth. The current study also assessed whether these measures are reliable and have concurrent validity when used with this new population. These questions were addressed using EFA, CFA, Chronbach's alphas and bivariate correlations, respectively. The following sections detail the results of these analyses.

### Item Descriptive Analyses and Sub-sample Equivalence

Overall, participants scored highly on all positively worded indicators of Civic Duty, with mean scores indicating that the average participant was somewhere between *somewhat agreeing* and *agreeing* with statements about the importance of civic duty. Participants' mean scores on the two negatively worded Civic Duty items, CD6, "It's not really my problem if my neighbors are in trouble/need help," ( $M = 3.30$ ,  $SD = 1.47$ , Range: 1-6) and CD10, "When I see someone being treated unfairly, I don't feel sorry for them", ( $M = 2.89$ ,  $SD = 1.67$ , Range: 1-6) indicated

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that the average participant was somewhere between *somewhat agreeing* and *disagreeing* with these items. Participants scored somewhat lower on indicators of Civic Participation, scoring lowest on CP6 “How often do you tutor another young person?” ( $M = 2.04$ ,  $SD = 1.60$ , Range: 1-6) and highest on CP1, “How often do you help make your city or town a better place for people to live,” ( $M = 3.62$ ,  $SD = 1.60$ , Range: 1-6), indicating that the average participant engaged in civic participation activities between sometimes and rarely. All items’ skewness and kurtosis scores had absolute values less than two, indicating that scores for all items were normally distributed (see Table 1). All Civic Duty items were moderately correlated with one another and the same was true for Civic Participation items. Civic Duty and Civic Participation Items were either modestly correlated or uncorrelated with one another (see Table 2). Chronbach’s alpha values for each scale are normally reported here, but because this study is concerned with scale construction, these were obtained later in the analytical process (i.e., after new scales were identified) and are discussed later.

A series of T-tests and Chi Square tests were conducted in order to assess the equivalence of this study’s two subsamples. These analyses confirmed that the study’s two sub-samples were equivalent both in terms of demographic background characteristics and questionnaire item responses, with the exception of maternal education, where participants in the EFA sample had mothers who had completed slightly more formal education than participants in the CFA sample (see Tables 3-7).

### **Exploratory Factor Analysis**

As a first step to the EFA, a scree plot was obtained. The scree plot shows that Eigen values stopped decreasing substantially after the use of a model utilizing a four factor solution, indicating that optimal model fit might be achieved (see Bandalos & Finney, 2010) with four

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factors (see Figure 2). Therefore, based on the Scree Plot and the results of the previous AEC validation study, I performed EFAs for models with one, two, three, and four factor solutions.

Model 1 used a one-factor solution treating all items as indicators of a single undifferentiated construct of civic engagement. Model 1 yielded a number of factor loadings which were quite low. Moreover, 13 out of the total 20 items had communality values under .50 (see Table 8). Low loading and communality values (see Bandalos & Finney, 2010) indicated that Model 1 was a poor fit for the data.

Model 2 used a two-factor solution, in line with the theory behind the original AEC validation study in which items were expected to load onto either a Civic Duty or a Civic Participation factor. This model also yielded several low factor loadings, indicating some items were not good indicators of either factor. Model 2 also resulted in several items having spread loadings, indicating poor differentiation between factors. Lastly, Model 2 yielded communality values below 0.5 for eight out of 20 items (see Table 9). Again the number of low factor loadings and communalities suggested that Model 2 does not fit the data well.

Model 3 used a three-factor solution and continued to improve the viability of the factor structure. In this model, only the first three Civic Participation items failed to exhibit pattern loadings onto any factor below 0.50. However, these same three items also had comparable pattern loading values across all three factors. The three-factor model also reduced the number of items with communality values below 0.50 to six (see Table 10). The fit of the model to the data appeared to improve somewhat, especially in terms of communality values, the spread loadings of the first three Civic Participation items still indicated a less than acceptable fit of Model 3 to the data.

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Model 4 used a four-factor solution and resulted in all items loading at above 0.50 onto a single factor without any items displaying spread pattern loading values. The use of a four-factor solution also reduced the number of communality values below 0.5 to three (see Table 11). However, closer examination of these results raised some suspicions about this model's third factor. This factor consisted of the two negatively worded Civic Duty items that had very low factor loadings in previous models. Negatively worded items are often included in scales comprised of a majority of positively worded items to reduce response bias due to "acquiescence." However, some recent research suggest that these kinds of items do not actually reduce response bias and often confuse respondents, causing some to erroneously agree with negatively worded statements (Colosi, 2005; Sauro & Lewis, 2011). It is likely that these two items constitute a factor not due to being indicators of a common construct, but because of similar negative wording. In other words, the correlation of responses to these two questions with each other does not stem from thematic commonality between the questions, but rather from the two items be associated with the same kind of response error.

Due to the problematic nature of the third factor in Model 4, I constructed Model 5, which specified a four-factor solution in which the two negatively worded Civic Duty items were dropped. In Model 5, all items loaded strongly onto one of the four factors and the number of low communality values was reduced to two (see Table 12). Additionally, the four-factor solution in Model 5 resulted in two Civic Duty and two Civic Participation factors, which aligned with previous theory about these two constructs being more differentiated in a historically oppressed youth population than they would be in a whiter and more affluent youth population. Moreover, the correlations between these four constructs were all moderate, indicating that none were redundant (see Table 13). Model 5 is, therefore, likely to fit the data

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better than the previous four models. Looking at Model 5, it appears that Civic Duty and Civic Participation are internally differentiated in the current population. For this reason, I refer to Model 5 from this point on as the Differentiated Constructs Model.

It appears that participants in the current population displayed a split conception of Civic Duty. The five questions in the first Civic Duty factor roughly indicated a sense of universal civic obligation in which the individual feels a duty to help all people and address universal problems. By contrast, the second Civic Duty factor contains items pertaining to participants' own community or asks the participant to think about their duty to specific individuals, and may, therefore, indicate a more proximal sense of civic duty. I, therefore, named the two new scales *Universal Civic Duty* (made up of the first five Civic Duty items) and *Duty to Community* (made up of the final five positively worded Civic Duty items).

Similarly, the Differentiated Constructs Model yielded two Civic Participation factors. The first Civic Participation factor contained items pertaining to civic behaviors such as helping a neighbor which constitute general helping behaviors aimed at bettering the participant's community, but are only loosely organized or structured. The second Civic Participation factor contained items pertaining to more structured and organized civic activities such as tutoring, which also tend to be mediated by formal institutions, such as schools. I have named these two new factors *Informal Civic Participation* (consisting of the first three Civic Participation items regarding general helping behavior) and *Formal Civic Participation* (consisting of the last five Civic Participation items regarding more formalized community service).

With this hypothesized model formulated, I conducted a CFA to confirm the new factor structure of the items being analyzed. I tested a model in which items can be grouped into four

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correlated factors representing (1) *Universal Civic Duty*, (2) *Civic Duty to Community*, (3) *Informal Civic Participation*, and (4) *Formal Civic Participation*.

### **Confirmatory Factor Analysis**

A CFA was conducted to test the replicability of the Differentiated Constructs Model. In this CFA, Civic Duty items one through five were constrained to indicate a first order factor of *Universal Civic Duty* and the remaining Civic Duty items were constrained to indicate a first order factor of *Duty to Community*. Civic Participation items one through three were constrained to indicate a first order factor of *Informal Civic Participation*, and the remaining five Civic Participation items were constrained to indicate a first order factor of *Formal Civic Participation*. Fit index values yielded by the CFA of this model were all below recommended thresholds (see Table 14) with the exception of the Chi-square test, which was significant ( $\chi^2 = 293.90, p < .001$ ), indicating good fit to the data.

Because the Chi-Square test was still significant in this model, indicating a different correlation matrix from the population, I consulted the modification indices generated by MPlus for this model to determine if model fit could be improved further. These indices suggested that fit could be improved if two sets of error terms were allowed to correlate. First, allowing CD7's error terms to co-vary with those of CD9 and CD10 was predicted to improve fit. Allowing the error terms of CP5 and CP6 to co-vary was indicated to do the same. These items also shared common question stems. Because allowing items with similar wording to co-vary is an accepted practice for improving model fit (Bowen & Guo, 2011), a second CFA was conducted to produce a modified Differentiated Constructs Model, which retained the factor structure of the original Differentiated Constructs Model and allowed the specified error terms to co-vary. This final model resulted in improvement to all fit indices, but the Chi Square test remained significant ( $\chi^2$

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= 255.04,  $p < .001$ ). However, because the Chi Square test is considered to be the most conservative of the fit indices (see Bandalos & Finney, 2010) and also sensitive to sample sizes greater than 200 (see Albright & Park, 2009; Thompson, 2004), I chose to disregard this index and conclude that the modified Differentiated Constructs Model was the best fit for the data.

The modified Differentiated Constructs Model resulted in all indicators loading moderately (e.g., .56 for CD9 loading onto *Civic Duty to Community*) or strongly (e.g., .90 for CD3 loading onto *Universal Civic Duty*) onto one of the four latent factors. Moreover, all latent factors were moderately correlated with one another (e.g.,  $r = .61$ ,  $p < .001$  for the two Civic Duty factors), with the exception of *Universal Civic Duty* and *Formal Civic Participation*, which were only modestly correlated ( $r = .30$ ,  $p > .001$ ). These correlations are consistent with the four factors representing related but differentiated civic engagement factors. The final factor structure of the modified Differentiated Constructs Model with all loadings and correlations can be found in Figure 3.

### Reliability and Concurrent Validity

Cronbach's alphas were obtained for the four revised Civic Duty and Civic Participation scales to assess their internal consistency. *Universal Civic Duty* ( $\alpha = .94$ ), *Duty to Community* ( $\alpha = .84$ ), *Informal Civic Participation* ( $\alpha = .80$ ), and *Formal Civic Participation* ( $\alpha = .86$ ) all exhibited good internal consistency indicating that all items within each scale were substantially inter-correlated. Finally, participant responses to the Parent Social Support scale were aggregated by obtaining a mean of the item scores. Religious Participation, being a single item was not aggregated. The same procedure was followed for the four new civic participation and civic duty scales. Correlations were run between religious participation and manifest aggregates of the two civic participation variables, as well as between Parent Social Support and manifest aggregates

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of the two civic duty variables to test concurrent validity. Both *Universal Civic Duty* ( $r = .19, p < .001$ ) and *Duty to Community* ( $r = .22, p < .001$ ) were modestly correlated with Parent Social Support. Both *Informal Civic Participation* ( $r = .09, p < .01$ ) and *Formal Civic Participation* ( $r = .14, p < .001$ ) were modestly correlated with Religious Participation. All of these effect sizes fell within the range of effect sizes found in previous studies (e.g., Lewis et al., 2013; Mahatmya & Lohman, 2012) and thus indicate that all four new measures have concurrent validity.

## Discussion

The current study assessed the structural validity, reliability, and concurrent validity of two measures of civic engagement among a predominantly low-SES Black/African American population of youth enrolled in an urban dropout recovery program at a single time point. The initial EFA indicated that the 20 civic engagement items would best fit the data if they were reduced to 18 items by dropping two negatively worded questions and broken down into four factors. This factor structure was confirmed by a CFA resulting in a final four-factor Modified Differentiated Constructs Model in which the error terms of five items were allowed to correlate. Fit indices showed that this model had good fit to the data and, thus good structural validity, albeit with a different factor structure from that which was found in the measures' original validations study (i.e., four factors rather than two). These four factors were named *Universal Civic Duty*, *Duty to Community*, *Informal Civic Participation*, and *Formal Civic Participation*.

All four constructs were moderately correlated with one another, as was the case in the original validation study. However, both Civic Duty factors related more weakly to *Formal Civic Participation*, and *Universal Civic Duty* was more weakly correlated with *Informal Civic Participation* than the results of original validation study led me to expect (i.e., Civic Participation and Civic Duty loaded strongly onto the second order AEC factor in the original

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validation study; Zaff et al., 2010). Chronbach's alpha values indicated that the four new scales had good internal reliability. Finally, all four factors were significantly correlated with variables found to predict civic duty and civic participation in previous research. These correlations were modest, but in-line with the lower range of effect sizes found in previous empirical studies involving similar constructs (e.g., Lewis et al., 2013; Mahatmya & Lohman, 2012) indicating acceptable concurrent validity.

### **Implications for Theory**

In this study the measures being validated were found to have sound psychometric properties when used to assess low-income youth of color who have dropped out of school. This lends further support to the PYD and Bio-ecological perspectives as sound theoretical lenses through which to assess civic engagement among historically marginalized youth. This study also addressed gaps in the extant literature by lending some preliminary quantitative support to the theoretical notion that the experience of oppression may result in differences in the manifestations of civic engagement across lines of race and socio-economic status (Spencer, 2011; Ginwright & Cammarota, 2007). The results of this validation study lent some support to the PVEST perspective and related theories specific to civic engagement among low-SES youth and youth of color, which suggest that civic engagement in these populations is distinct from civic engagement in more mainstream American populations (e.g. Fox, Mediratta, Ruglis, Stoudt, Shah, & Fine, 2010; Ginwright, 2007; Ginwright & Cammarota, 2007; Ginwright, Cammarota, & Noguera, 2005; Watts, Abdul-Adil, & Pratt, 2002; Watts, Diemer, & Voight, 2011; Watts & Flanagan, 2007).

Specifically, these findings suggest that low-SES youth and youth of color may have different conceptions of civic duty and may act on that sense of civic duty in different ways than

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white and upper/middle income youth. From PVEST (see Spencer, 2011) or SJYD (Ginwright & Cammarota, 2007) perspectives, it may be that the experience of oppression shapes a youth's conceptions of civic engagement. Specifically, my results suggest that low-income youth of color conceptualize their duty to their specific community as separate from their duty to the general body politic, lending some credence to the theory that the experience of racial oppression may result in civic duty that is shaped by racial solidarity rather than universal civic duty (e.g., Watts, Williams, & Jaegers, 2003). Moreover, results also point to the importance of distinctions between kinds of civic participation by low-income youth of color. Specifically informal civic participation (composed of general helping behaviors), which is historically prevalent in marginalized communities, constitutes a separate form of civic participation from more structured and planned participation among low-income youth of color (e.g. Torney-Purta et al., 2010).

Finally, the weaker than expected correlations between Civic Duty and Civic Participation measures lent some support to previous findings indicating that structural conditions in low-income communities of color may pose barriers to civically committed individuals acting on their sense of commitment through civic participation (e.g., McBride, Sherraden & Pritzker, 2006; Zaff, Youniss, & Gibson, 2009). This conclusion must be tentative because it is based on simple bivariate correlations, but the findings are suggestive of how differing contextual conditions matter in terms of civic development.

More generally, the fact that Duty to Community correlated more strongly with Informal Civic Participation than Universal Civic Duty with either Civic Participation factor suggests that the interplay between civic motivations and actions in a population of low-income youth of color was distinct from the relations found in whiter more affluent youth populations (e.g., Zaff et al.,

2010). Specifically, it may be that community-specific conceptions of civic duty and informal civic participation constitute a pairing of motivation and action which is particularly salient for youth living in historically oppressed communities. Civic duty of both kinds, on the other hand, appears to be a less salient motivation for formal civic participation in the new population.

### **Implications for Measurement**

The results of this study addressed important gaps in the extant literature on youth civic engagement by validating a measure that can be used to quantitatively assess different forms of civic engagement in low-income communities of color. Specifically, the measures validated in this study were found to be psychometrically sound for the population being assessed, but results also suggested that there are important distinctions between kinds of civic engagement among low-SES youth and youth of color, which these measures were not necessarily designed to capture.

Measures for assessing civic engagement in diverse populations must take into account the split conceptions of civic duty held by youth belonging to historically oppressed groups. Duty to the broader body politic should be assessed as separate from young people's sense of obligation to their specific community or racial group. Moreover, measurement of civic participation among low-SES youth and youth of color must take into account ways in which participation may differ across communities not only in quantity, but in kind. Measures must therefore assess civic participation mediated through formal institutions and more informal civic participation, such as helping out a neighbor in need. When using such differentiated measures for analyses, it would be prudent to analyze them as separate but related constructs rather than as indicators of a single underlying construct of civic engagement. Lastly, it is important to take into account the possibility that the relations between different kinds of civic duty and civic

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participation may vary across populations. Because conceptions of civic duty, forms of civic participation, and the relationship between the two may differ across communities, each must be considered in its own right.

### **Limitations**

This study was limited in several important ways. First, the sample used was cross sectional. The measure being validated could not, therefore, be assessed for structural validity across times of measurement, an important form of validity for longitudinal research with latent variables. Second, all data for this study were derived from self-report measures. Convergent validity could, thus, not be established by triangulating self-reports with other forms of assessment. Finally, the conclusions must be tempered in light of the fact that the civic engagement measures were each proctored in two halves at different times. For example, all participants responded to the Universal Civic Duty items during April or May of 2014, but responded to Community-Specific Civic Duty items during June or July of 2014. Responses to items in the two civic participation scales followed a similar pattern. The new factor structure aligns with time of data collection (i.e. *Universal Civic Duty* aligns with the half of the Civic Duty measure administered during the spring of 2014, whereas *Duty to Community* aligns with Civic Duty items responded to during the summer of 2014, etc.). It may be that the new factor structure of the data is not related to underlying differences between participants from the original AEC validation study and participants in the new sample in terms of how they conceive civic duty and engage in civic participation, but rather to differences in the pattern of time of data collection, thus confounding the results.

### **Future Research**

## Measuring Civic Engagement

Based on the results of this study, future researchers would do well to develop and validate measures of civic engagement that assess the differentiated forms of civic duty and civic participation that exist across communities on the basis of race and SES. The measures validated in this study have good structural and concurrent validity, as well as good reliability when used to assess the civic engagement of low-SES youth of color. These items, however, were not designed to identify forms of civic duty and civic participation which theory suggests should be prevalent among youth from historically oppressed populations (e.g. civil disobedience mediated by hip hop clubs and dance crews; Ginwright, 2007) , and therefore represent, at best, an improved but ad hoc method for assessing civic engagement across diverse communities. I, therefore, suggest that future researchers expand and amend the current scales to specifically assess *Universal Civic Duty*, *Duty to Community*, *Informal Civic Participation*, and *Formal Civic Participation*. Additionally, such scales might also include measures for assessing forms of civic participation aimed at combatting oppression and disrupting the status quo which may be important in historically oppressed populations. Once new measures have been designed which capture these diverse aspects of civic engagement, it will be important to longitudinally validate these measures using a diverse sample of youth with large enough sub-groups of low-SES and minority participants to allow for comparisons of validity and reliability across groups often affected by civic gaps. Finally, in order to establish the convergent validity of such new measures, future researchers should triangulate these self-report measures with parent, teacher, or perhaps youth worker reports, depending on the context of the study.

## Conclusion

The results of the current study highlight the challenges associated with assessing civic engagement among youth with diverse experiences in diverse contexts. Confronting these

## Measuring Civic Engagement

challenges is critical for understanding and ultimately addressing the civic gaps that exist across communities in America based on race and socio-economic status. The results of the current study are, therefore, also a cause for optimism in that they show a path towards new and ultimately more accurate measures for assessing youth civic engagement in a diverse country, such as the United States. I, thus, leave it to future researchers to build upon these findings and find ways to understand just how civic engagement differs across diverse communities, and to identify ways in which all forms of civic duty, civic participation, and ultimately social justice can be promoted in communities throughout America.

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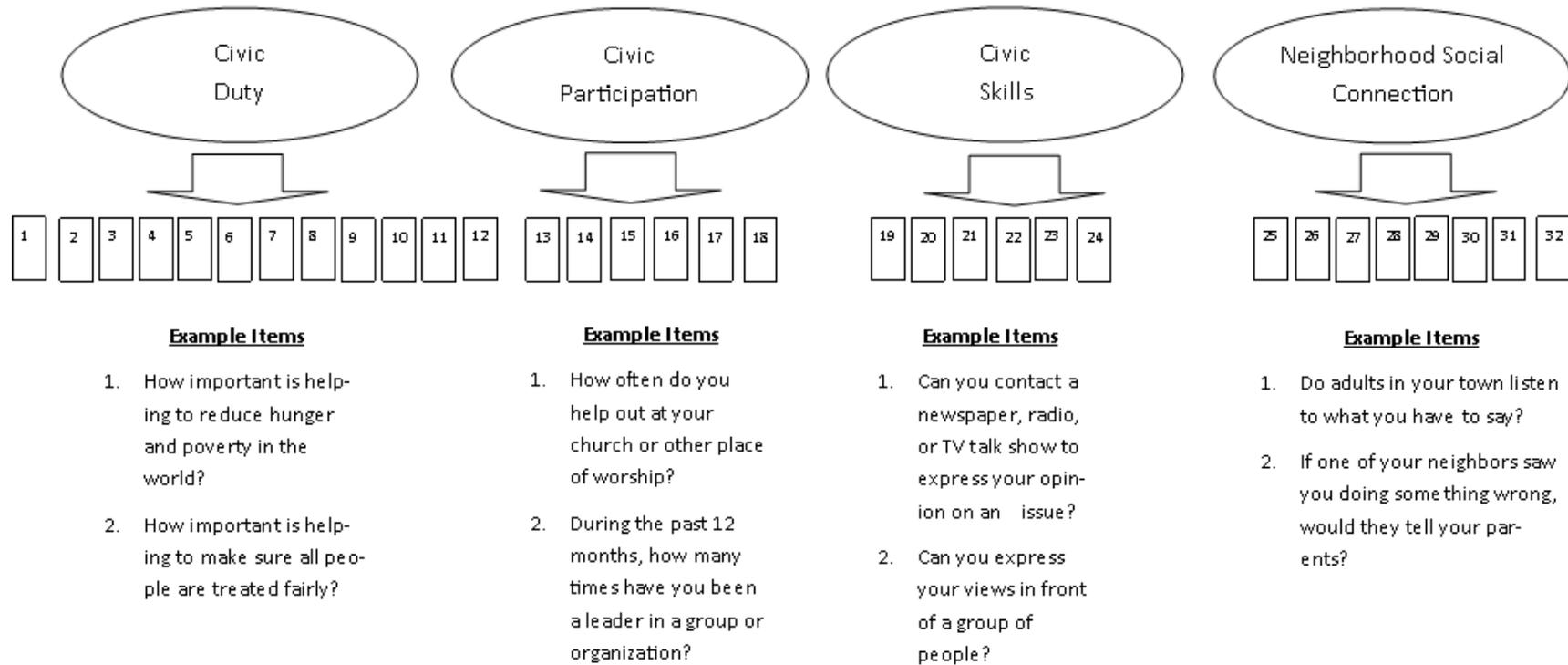
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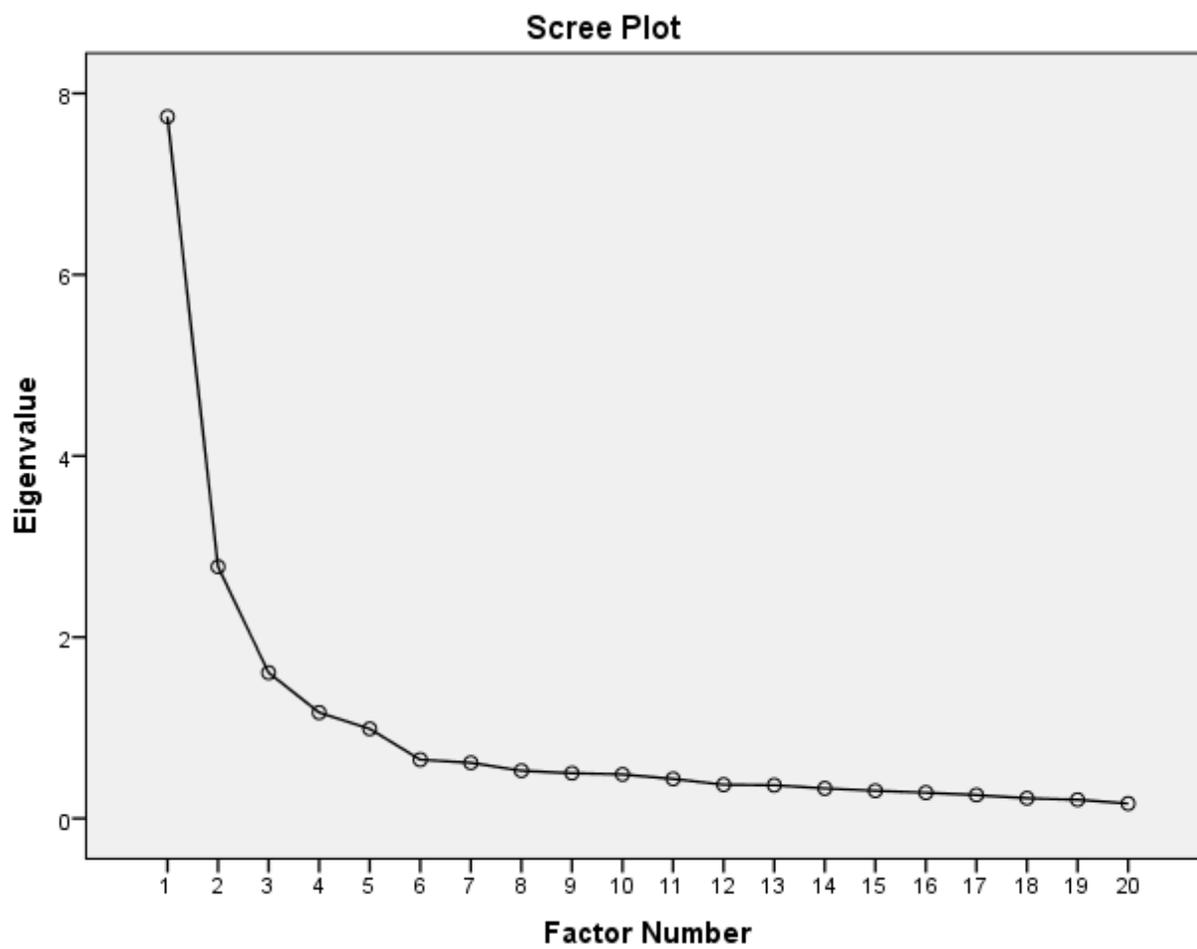
Figure 1. Model of Active Engaged Citizenship without Factor Loadings

## Active Engaged Citizenship



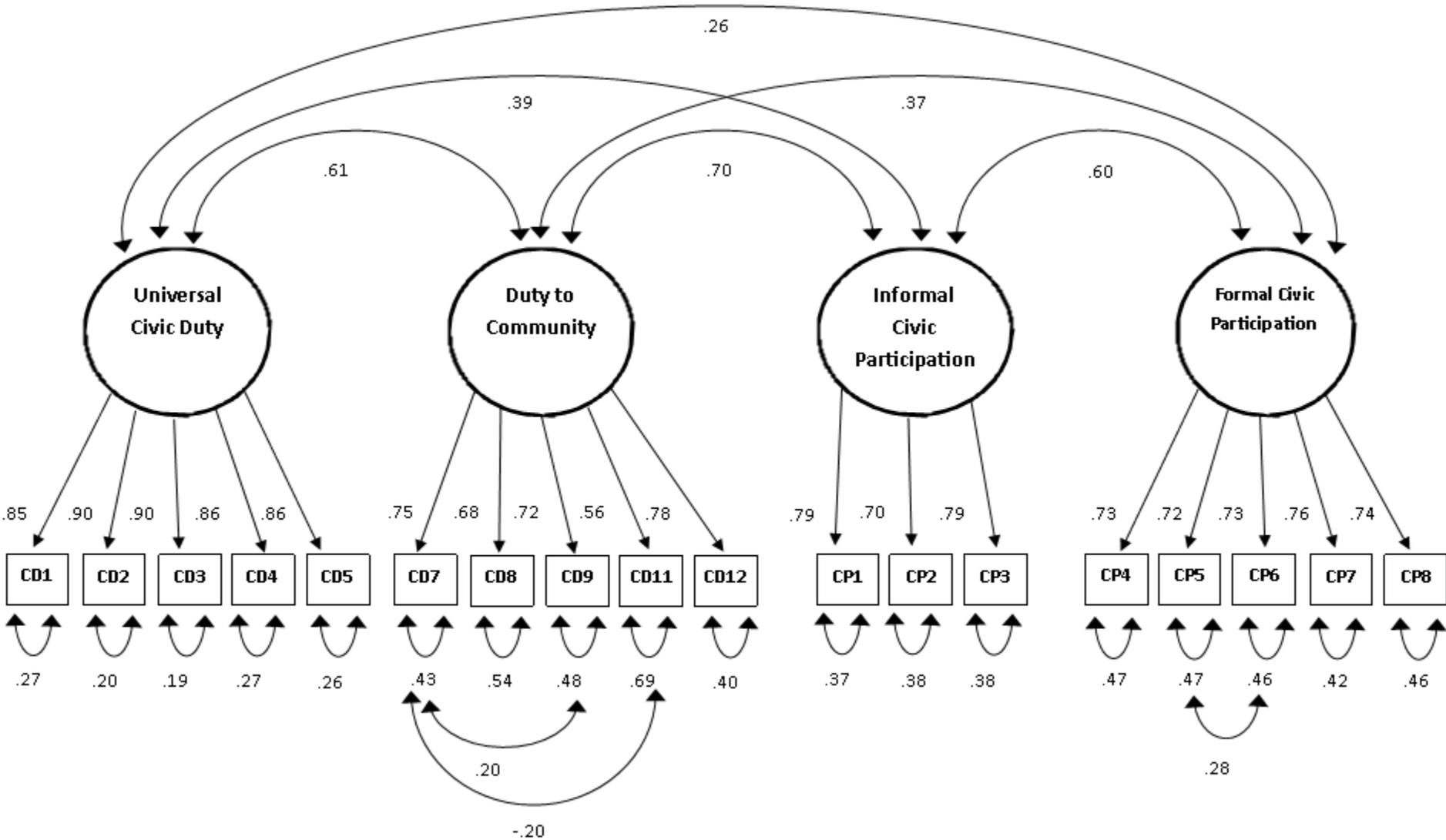
## Measuring Civic Engagement

Figure 2. Scree Plot



Measuring Civic Engagement

Figure 3. Diagram of Modified Differentiated Constructs Model with Factor Loadings, Correlations, and Error Terms.



## Measuring Civic Engagement

Table 1. Means, Standard Deviations, and other Descriptive Statistics for Civic Engagement Measures

Scale	Item	N	Mean	Range	SD	Skewness	Kurtosis
Civic Duty (CD)	1. How important is helping to reduce hunger and poverty in the world?	776	4.81	1-6	1.22	-.98	.70
	2. How important is helping to make sure all people are treated fairly?	782	4.91	1-6	1.16	-1.11	1.29
	3. How important is helping to make the world a better place to live in?	774	4.96	1-6	1.17	-1.13	1.90
	4. How important is helping other people?	777	4.77	1-6	1.16	-.78	.37
	5. How important is Speaking up for equality?	780	4.94	1-6	1.16	-1.08	1.01
	6. It's not really my problem if my neighbors are in trouble/need help.	769	3.30	1-6	1.47	.09	-1.00
	7. I believe I can make a difference in my community.	773	4.42	1-6	1.32	-.86	.16
	8. When I see someone being taken advantage of, I want to help them.	772	4.82	1-6	1.11	-1.37	2.42
	9. I often think about doing things so that people in the future can have things better.	776	4.74	1-6	1.17	-1.20	1.44
	10. When I see someone being treated unfairly, I don't feel sorry for them.	769	2.89	1-6	1.67	.51	-1.10
	11. I feel sorry for other people who don't have what I have.	765	4.45	1-6	1.46	-.93	-.01
	12. It is important to me to contribute to my community and society.	770	4.56	1-6	1.22	-.99	.83
Civic Participation (CP)	1. How often do you help make your city or town a better place for people to live?	769	3.62	1-6	1.60	-.21	-1.04
	2. How often do you help out at your church, synagogue or other place of worship?	760	3.33	1-6	1.74	.05	-1.29

## Measuring Civic Engagement

3.	How often do you help a neighbor?	773	3.91	1-6	1.54	-.37	-.84
4.	How often do you volunteer your time (at a hospital, day care center, food bank, youth program, community service agency)?	753	2.21	1-6	1.58	1.15	.01
5.	How often do you engage in Mentoring/peer advising?	756	2.26	1-6	1.72	1.15	-.12
6.	How often do you tutor another young person?	760	2.04	1-6	1.60	1.38	.53
7.	During the last 12 months, how many times have you been a leader in a group or organization?	755	2.46	1-6	1.75	.91	-.59
8.	How often do help out at your school?	749	2.43	1-6	1.75	.92	-.63

## Measuring Civic Engagement

Table 2. *Item Correlations*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	16	19	
Civic Duty 1																				
Civic Duty 2	.74																			
Civic Duty 3	.78	.80																		
Civic Duty 4	.70	.72	.74																	
Civic Duty 5	.70	.73	.76	.75																
Civic Duty 6	.13	.15	.15	.16	.15															
Civic Duty 7	.48	.29	.44	.24	.48	.01														
Civic Duty 8	.44	.43	.45	.47	.44	.09	.51													
Civic Duty 9	.48	.42	.51	.50	.45	.09	.62	.59												
Civic Duty 10	.09	.10	.11	.05	.09	.46	.06	.06	.01											
Civic Duty 11	.38	.30	.37	.38	.30	.01	.36	.45	.41	.08										
Civic Duty 12	.47	.42	.49	.52	.42	.07	.64	.54	.60	.10	.49									
Civic Participation 1	.32	.28	.33	.38	.28	.04	.48	.33	.39	.14	.24	.52								
Civic Participation 2	.19	.18	.21	.23	.18	.06	.29	.21	.24	.20	.19	.36	.58							
Civic Participation 3	.30	.29	.31	.40	.32	.12	.11	.42	.44	.08	.27	.49	.61	.53						
Civic Participation 4	.26	.23	.23	.22	.22	.01	.24	.22	.29	.07	.11	.27	.36	.38	.35					
Civic Participation 5	.20	.18	.19	.20	.20	.03	.25	.17	.20	.12	.15	.25	.31	.29	.28	.59				
Civic Participation 6	.17	.10	.13	.16	.16	.02	.17	.14	.16	.08	.12	.19	.31	.28	.29	.54	.66			
Civic Participation 7	.13	.11	.11	.14	.13	.04	.27	.15	.17	.12	.15	.21	.34	.32	.30	.48	.55	.55		
Civic Participation 8	.13	.14	.14	.18	.17	.01	.20	.19	.19	.12	.12	.21	.34	.34	.29	.50	.49	.51	.56	

## Measuring Civic Engagement

Table 3. T-Tests for Equivalence Between EFA and CFA Sub-samples.

	Sub-Sample						95% CI for Mean Difference		<i>t</i>	df
	CFA Sub-sample			EFA Sub-samples						
	M	SD	<i>n</i>	M	SD	<i>n</i>				
Civic Duty	4.47	.70	354	4.47	.82	366	-.11, .12	.07	718	
Civic Participation	2.81	1.21	348	2.77	1.16	363	-.22, .13	-.48	709	
Parent Social Support	4.69	1.25	356	4.66	1.34	361	-.22, .16	-.29	715	
Religious Participation	1.33	4.13	372	2.00	5.53	381	-.03, 1.37	1.89	702.69	
Age	16.49	2.00	371	16.26	1.97	379	-.51, .06	-1.57	748	
Maternal Education	3.75	1.98	371	4.06	2.09	379	.01, .60	2.04*	748	

\* $p < .05$

## Measuring Civic Engagement

Table 4. *Chi Square Test of Subsample Equivalence on Gender*

Gender	Sub-sample	
	CFA	EFA
Male	182 (49.05%)	183 (48.28%)
Female	187 (50.40%)	193 (50.92%)
Transgender	2 (0.9%)	3 (0.9%)

*Note.*  $X^2 = 1.32$ ,  $*p < .05$ , parentheses indicate percentage of total subsample.

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Table 5. *Chi Square Test for Subsample Equivalence on Blackness*

Blackness	Sub-sample	
	CFA	EFA
Black/African American	272 (73.31%)	295 (77.84%)
Non-Black/African American	99 (26.68%)	84 (22.16%)

*Note.*  $X^2 = 3.37$ ,  $*p < .05$ , parentheses indicate percentage of total subsample.

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Table 6. *Chi Square Test for Subsample Equivalence on Hispanicity*

Hispanicity	Sub-sample	
	CFA	EFA
Hispanic	45 (12.13%)	41 (10.82%)
Non-Hispanic	326 (87.87%)	338 (89.18%)

*Note.*  $X^2 = .84$ ,  $*p < .05$ , parentheses indicate percentage of total subsample.

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Table 7. *Chi Square Test for Subsample Equivalence on Whiteness*

Whiteness	Sub-sample	
	CFA	EFA
White	66 (17.79%)	73 (19.26%)
Non-White	305 (82.21%)	306 (80.74%)

*Note.*  $X^2 = 1.18$ ,  $*p < .05$ , parentheses indicate percentage of total subsample.

Table 8. *Factor Loadings and Communalities Values for EFA Model One*

<b>Item</b>	<b>Loadings Single Civic Engagement Factor</b>	<b>Communalities</b>
Civic Duty 1	.76	.58
Civic Duty 2	.68	.47
Civic Duty 3	.76	.58
Civic Duty 4	.79	.62
Civic Duty 5	.73	.54
Civic Duty 6		.49
Civic Duty 7	.70	.50
Civic Duty 8	.71	.56
Civic Duty 9	.75	.31
Civic Duty 10		.62
Civic Duty 11	.56	.46
Civic Duty 12	.79	.58
Civic Participation 1	.67	.45
Civic Participation 2	.46	.21
Civic Participation 3	.65	.42
Civic Participation 4	.48	.23
Civic Participation 5	.43	.19
Civic Participation 6	.40	.16
Civic Participation 7	.37	.14
Civic Participation 8	.37	.13

*Note – Factor loadings < 0.2 are suppressed*

Table 9. *Factor Loadings and Community Values for EFA Model 2*

Item	Loadings				Communalities
	Civic Duty		Civic Participation		
	Pattern	Structure	Pattern	Structure	
Civic Duty 1	<b>.84</b>	<b>.82</b>			.67
Civic Duty 2	<b>.79</b>	<b>.74</b>			.54
Civic Duty 3	<b>.86</b>	<b>.83</b>			.70
Civic Duty 4	<b>.86</b>	<b>.84</b>			.70
Civic Duty 5	<b>.77</b>	<b>.78</b>			.60
Civic Duty 6					.04
Civic Duty 7	<b>.67</b>	<b>.70</b>		.29	.49
Civic Duty 8	<b>.70</b>	<b>.71</b>		.26	.51
Civic Duty 9	<b>.77</b>				.58
Civic Duty 10				-.27	.07
Civic Duty 11	<b>.55</b>	<b>.76</b>		.27	.32
Civic Duty 12	<b>.77</b>	<b>.79</b>		.30	.63
Civic Participation 1	.49	<b>.59</b>	.37	<b>.51</b>	.48
Civic Participation 2	.27	.38	.38	.45	.28
Civic Participation 3	<b>.50</b>	<b>.60</b>	.30	.44	.43
Civic Participation 4		.35	<b>.64</b>	<b>.69</b>	.50
Civic Participation 5		.28	<b>.73</b>	<b>.75</b>	.57
Civic Participation 6		.25	<b>.70</b>	<b>.71</b>	.51
Civic Participation 7		.22	<b>.70</b>	<b>.71</b>	.50
Civic Participation 8		.22	<b>.66</b>	<b>.67</b>	.44

*Note – Factor loadings < 0.3 are suppressed*

## Measuring Civic Engagement

Table 10. *Factor Loadings and Communalities Values for EFA Model Three.*

Items	Loadings						Communalities
	Factor 1		Factor 2		Factor 3		
	Pattern	Structure	Pattern	Structure	Pattern	Structure	
Civic Duty 1	<b>.84</b>	<b>.81</b>		.26			.68
Civic Duty 2	<b>.77</b>	<b>.74</b>		.22			.59
Civic Duty 3	<b>.87</b>	<b>.83</b>		.23			.73
Civic Duty 4	<b>.86</b>	<b>.84</b>		.27			.71
Civic Duty 5	<b>.79</b>	<b>.76</b>		.27			.63
Civic Duty 6					<b>.51</b>	.49	.25
Civic Duty 7	<b>.68</b>	<b>.70</b>		.32		-.23	.52
Civic Duty 8	<b>.70</b>	<b>.71</b>		.31			.51
Civic Duty 9	<b>.74</b>	<b>.76</b>		.32			.58
Civic Duty 10					<b>.70</b>	<b>.70</b>	.48
Civic Duty 11	<b>.56</b>	<b>.57</b>		.22			.34
Civic Duty 12	<b>.79</b>	<b>.80</b>		.32	-.22	-.30	.69
Civic Participation 1	.48	<b>.60</b>	.24	.50	-.28	-.40	.52
Civic Participation 2	.27	.39	.22	.42	-.35	-.44	.35
Civic Participation 3	.49	<b>.59</b>		.45		-.28	.44
Civic Participation 4		.36	<b>.66</b>	<b>.70</b>		-.20	.51
Civic Participation 5		.29	.22	<b>.79</b>			.63
Civic Participation 6		.26	<b>.82</b>	<b>.76</b>			.59
Civic Participation 7		.23	<b>.80</b>	<b>.71</b>		-.24	.51
Civic Participation 8		.23	<b>.71</b>	<b>.68</b>			.46

## Measuring Civic Engagement

Table 11. *Factor Loadings and Communalities Values for EFA Model Four.*

Item	Loadings								Communalities
	Factor 1		Factor 2		Factor 3		Factor 4		
	Pattern	Structure	Pattern	Structure	Pattern	Structure	Pattern	Structure	
Civic Duty 1	<b>.73</b>	<b>.83</b>		.22				<b>.60</b>	.70
Civic Duty 2	<b>.84</b>	<b>.82</b>						.47	.67
Civic Duty 3	<b>.92</b>	<b>.91</b>		.20				<b>.55</b>	.83
Civic Duty 4	<b>.69</b>	<b>.83</b>		.23			.22	<b>.64</b>	.72
Civic Duty 5	<b>.75</b>	<b>.81</b>		.24				<b>.55</b>	.66
Civic Duty 6					<b>.76</b>	<b>.74</b>			.56
Civic Duty 7		<b>.57</b>		.27			<b>.56</b>	<b>.70</b>	.53
Civic Duty 8		<b>.59</b>		.25			<b>.58</b>	<b>.70</b>	.55
Civic Duty 9		<b>.63</b>		.27			<b>.59</b>	<b>.74</b>	.61
Civic Duty 10					<b>.74</b>	<b>.77</b>		-.24	.61
Civic Duty 11		.48					.41	<b>.55</b>	.34
Civic Duty 12		<b>.64</b>		.25			<b>.73</b>	<b>.82</b>	.72
Civic Participation 1		.39		.45			<b>.71</b>	<b>.75</b>	.58
Civic Participation 2		.21		.39		-.25	<b>.54</b>	<b>.55</b>	.37
Civic Participation 3		.40		.40			<b>.68</b>	<b>.71</b>	.52
Civic Participation 4		.24	<b>.63</b>	<b>.70</b>				.42	.51
Civic Participation 5			<b>.80</b>	<b>.80</b>				.35	.64
Civic Participation 6			<b>.78</b>	<b>.76</b>				.31	.59
Civic Participation 7			<b>.67</b>	<b>.70</b>				.34	.50
Civic Participation 8			<b>.69</b>	<b>.69</b>				.29	.47

## Measuring Civic Engagement

Table 12. *Factor Loadings and Communalities Values for EFA Model 5*

Item	Loadings								Communalities
	Factor 1		Factor 2		Factor 3		Factor 4		
	Pattern	Structure	Pattern	Structure	Pattern	Structure	Pattern	Structure	
Civic Duty 1	<b>.69</b>	<b>.82</b>				.38		<b>.68</b>	.70
Civic Duty 2	<b>.86</b>	<b>.82</b>				.32		<b>.56</b>	.68
Civic Duty 3	<b>.97</b>	<b>.93</b>				.37		<b>.64</b>	.86
Civic Duty 4	<b>.65</b>	<b>.83</b>				.45		<b>.71</b>	.71
Civic Duty 5	<b>.77</b>	<b>.82</b>				.38		<b>.62</b>	.67
Civic Duty 7		<b>.54</b>				.42	<b>.79</b>	<b>.78</b>	.60
Civic Duty 8		<b>.58</b>				.43	<b>.71</b>	<b>.76</b>	.58
Civic Duty 9		<b>.621</b>				.45	<b>.70</b>	<b>.80</b>	.64
Civic Duty 11		.46				.33	<b>.57</b>	<b>.60</b>	.37
Civic Duty 12		<b>.61</b>				<b>.54</b>	<b>.82</b>	<b>.86</b>	.75
Civic Participation 1		.44		.43	<b>.66</b>	<b>.79</b>		<b>.57</b>	.66
Civic Participation 2				.36	<b>.80</b>	<b>.75</b>		.34	.57
Civic Participation 3		.45		.39	<b>.59</b>	<b>.73</b>		<b>.56</b>	.57
Civic Participation 4			<b>.59</b>	<b>.69</b>		.49		.31	.51
Civic Participation 5			<b>.83</b>	<b>.81</b>		.35			.66
Civic Participation 6			<b>.78</b>	<b>.77</b>		.34			.59
Civic Participation 7			<b>.69</b>	<b>.71</b>		.36			.51
Civic Participation 8		<b>.82</b>	<b>.69</b>	<b>.69</b>		.32		<b>.68</b>	.47

Table 13. *Correlations Between Four Factors in EFA Model 5*

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>1. Universal Civic Duty</b>		.25	.41	.72
<b>2. Informal Civic Participation</b>	.25		.47	.33
<b>3. Formal Civic Participation</b>	.41	.47		.54
<b>4. Civic Duty to Community</b>	.72	.33	.54	

## Measuring Civic Engagement

Table 14. *Model Fit Statistics for CFA*

<b>Model</b>	<b><math>X^2</math></b>	<b><math>P (X^2)</math></b>	<b>CFI</b>	<b>TLI</b>	<b>RMSEA</b>	<b><math>P</math> (RMSEA)</b>	<b>SRMR</b>
Differentiated Constructs Model	293.90	<.0005	0.96	0.95	0.06	0.09	0.04
Modified Differentiated Constructs Model	255.04	<.0005	0.97	0.96	0.05	0.41	0.04