College Status and Trajectories of Perceived Leadership Ability Among Emerging Adults

Stephanie S. Moore¹, Carissa J. Schmidt¹, Justin E. Heinze¹, Matthew A. Diemer¹, and Marc A. Zimmerman¹

Abstract
This study explores changes in perceived leadership ability during emerging adulthood among a predominantly African American sample, with special consideration of the differences between the experiences of individuals who attended 4-year universities and those who did not. We used data from a longitudinal study that followed participants from high school into adulthood. Findings demonstrated that perceived leadership ability declined between the ages of 18 and 22, with the largest declines occurring among emerging adults who did not attend 4-year colleges. These findings suggest that perceived leadership ability is malleable and responds to contextual factors, such as limited access to leadership roles during emerging adulthood. We conclude with implications for practice to support leadership development among emerging adults.

Keywords
college, perceived leadership ability, leadership development, minorities, positive youth development

Positive youth development perspectives, which focus on promoting optimal development rather than preventing dysfunction, identify leadership as a developmental attribute that is necessary for personal and professional thriving (Scales, Benson, & Roehlkepartain, 2011). Leadership behaviors often indicate the presence of other developmental attributes because the same individuals typically possess competencies such as self-confidence and respect for others (Scales, Benson, Leffert, & Blyth, 2000). Furthermore, researchers have demonstrated that leadership is linked to lower likelihood of engaging in negative behaviors, such as aggression (Leff et al., 2014) and alcohol use (Hensing & Spak, 2009).

Effective leadership requires confidence in one’s abilities to exert positive influence (e.g., Hannah, Avolio, Luthans, & Harms, 2008). If individuals perceive they do not have the ability to lead, they are unlikely to engage in leadership behaviors or seek out leadership roles. On the other hand, individuals who are confident in their abilities to lead are more motivated to adopt leadership roles and demonstrate other leadership behaviors in groups (Chan & Drasgow, 2001; Komives, Longerbeam, Owen, Mainella, & Osteen, 2006). Therefore, perceived leadership ability is an important contributor to effective leadership (Hoyt, Murphy, Halverson, & Watson, 2003).

Given the important link between perceived leadership ability and actual leadership behavior, it is pertinent to focus research efforts on better understanding what influences an individual’s confidence in their ability to lead. Previous research suggests that individuals’ perceived leadership ability is context dependent (Komives et al., 2006). For example, environments that provide opportunities to engage in leadership behaviors and to develop relevant skills enhance individuals’ beliefs in their ability to lead (Hannah et al., 2008). Because context is ever changing, it is plausible that an individual’s perceived leadership ability may change over time.

Emerging adulthood is a particularly important developmental stage in which perceived leadership ability may change due to changes in context. During this period, emerging adults are faced with new roles and increased responsibility (e.g., job, family; Arnett, 2000). These new roles and heightened responsibilities create competing demands that may make individuals less likely to hold leadership positions. Changes in the educational context after high school are also likely to influence emerging adults’ perceived leadership ability. These contexts present a shift from the high school environment and also vary greatly across universities.

¹University of Michigan, Ann Arbor, MI, USA

Corresponding Author:
Stephanie S. Moore, PhD, Center for Education Design, Evaluation, and Research, School of Education, University of Michigan, 610 E. University Avenue; Ann Arbor, MI 48109, USA.
Email: sssmoore@umich.edu
individuals, depending on whether they attend 4-year universities, community colleges, or no college at all. Emerging adults who do not attend 4-year universities after high school are likely to have fewer opportunities to demonstrate leadership than university students (Zarrett & Eccles, 2006) and, therefore, decline in perceived leadership ability among nonuniversity-bound youth may be especially pronounced.

To the best of our knowledge, the malleability of perceived leadership ability over time has not been explicitly tested. Furthermore, there is a dearth of research examining how college status may influence an emerging adult’s confidence in their ability to lead. The majority of research on perceived leadership ability has been conducted with predominantly high-achieving, White samples. Yet, it is important to understand how college attendance influences perceived leadership ability among African American emerging adults, who may have different experiences with leadership on or off college campuses than their White peers. To address these gaps in the literature, this study explores changes in perceived leadership ability during emerging adulthood for a predominantly African American sample, with special consideration of the differences between the experiences of individuals who attend 4-year universities and those who do not.

**Leadership Ability and Malleability**

Controversy exists regarding the mutability of leadership ability. Traditional theories suggest that some individuals are born leaders who will demonstrate strong leadership ability throughout their lives (e.g., Kirkpatrick & Locke, 1991; Zaccaro, 2007), but contemporary leadership theories suggest that individuals’ leadership ability is highly context dependent and will vary over time in relation to their life experiences (e.g., Burns, 2012; Komives & Dugan, 2010). Contemporary theories conceptually define leadership as a process that can be learned and suggest that all individuals have leadership potential (Burns, 2012; Greenleaf, 2002).

Leadership identity development (LID) theory supports the idea that leadership ability is malleable and offers a framework to describe the process by which leadership ability can be learned (Komives et al., 2006; Komives et al., 2009). LID suggests that a person’s confidence in their ability to lead develops through a series of stages, but these stages are not necessarily linear; and individuals’ progression is heavily influenced by context. More specifically, Komives, Longerbeam, Owen, Mainella, and Osteen (2006) theorize that perceived leadership ability is dependent upon a number of factors, including adult influences (e.g., encouragement from family members), peer influences (e.g., mentorship from older peers), reflective learning (e.g., thinking critically about past leadership experiences and how to improve in the future), and the availability of opportunities for meaningful involvement in one’s environment. Self-esteem is also understood as an important influence on one’s confidence in their ability to lead (Komives et al., 2006; Komives et al., 2009); higher self-esteem is associated with greater perceived leadership ability (Chermers, Watson, & May, 2000).

The developmental nature of LID theory suggests that as these contextual factors change over time, individuals’ perceived leadership ability will likely change over time as well. For example, it is plausible that at certain points across the life span, an individual may have more opportunities available to them for meaningful involvement, and, therefore, they may perceive a greater ability to exhibit leadership. Additionally, we know that self-esteem changes over time (Robins & Trzesniewski, 2005), and given the relationship between self-esteem and leadership ability, a person’s confidence in their ability to lead may be higher during times in their life when they have particularly high self-esteem. On the contrary, perceived leadership ability may also regress. Going back to the same examples, at points in which availability of opportunities for meaningful involvement is limited or a person’s self-esteem is low, an individual may perceive a lower ability to exhibit leadership. Accordingly, contextual factors may either foster or hinder leadership development and may cause a person’s perceived leadership ability to fluctuate over time. While LID and other contemporary theories postulate that leadership ability is malleable, there is a lack of research explicitly testing this idea.

**Emerging Adulthood**

Emerging adulthood is a particularly important developmental stage in which perceived leadership ability may change. Emerging adulthood is defined as the distinctive period between adolescence and adulthood, occurring roughly between ages 18 and 25 for individuals in Western industrialized societies. According to Arnett (2000), this relatively new developmental period is the result of societal changes that have occurred in industrial societies over the past four decades. For example, between 1970 and 2017, the average age of marriage in the United States rose from 23 for men and 21 for women to 30 for men and 27 for women (U.S. Census Bureau, 2017). The age of parenting also increased, with the average age of new mothers increasing from 21 in 1970 to 26 in 2015 (Pew Research Center, 2015). Delays in the onset of familial responsibility brought additional freedom for individuals in their 20s and a new sense of what it means to be an adult.

Emerging adulthood is often characterized by instability and exploration as individuals are transitioning into adult roles (Arnett, 2000). This exploration that takes place often results in a change of context for emerging adults. For instance, they may experiment with new ideologies, occupations, and relationships as they strive to achieve an integrated sense of identity (Marcia, 1966).

The change in context that takes place during emerging adulthood may result in changes to individuals’ perceived leadership abilities. In fact, emerging adults may have experiences that actually diminish their confidence in their leadership abilities. Individuals’ beliefs in their abilities tend to be context-specific (Bandura, 1977), so emerging adults’ beliefs in their leadership abilities are likely to decline when they enter new contexts that afford fewer opportunities for leadership. For
example, when high school seniors, who are typically afforded a higher social status within their schools and may feel like leaders in relation to younger students, transition to their next role (e.g., an introductory-level job, a freshman year in college), they often experience a reduction in social status and may no longer feel like a leader in their new context.

New responsibilities in emerging adulthood may also contribute to declines in perceived leadership ability. Adopting new work and family responsibilities limits the time emerging adults have available to participate in social activities (Arnett, 2005). In addition, emerging adults are beginning the process of becoming self-reliant, autonomous individuals, and spend more of their work, study, and leisure time alone than they did as adolescents (Bowker, Nelson, Markovic, & Luster, 2014; Larson, 1990). Less time in group settings means that emerging adults may have fewer opportunities to engage in leadership behaviors than they did as adolescents. As mentioned previously, opportunities to engage in leadership behavior are important for individuals to feel confident in their ability to lead (Komives et al., 2006). When emerging adults do work with groups, relative lack of experience may mean that they are less likely than older adults to be selected for leadership positions (Thomas, 2017). With limited opportunities to engage in leadership behaviors or practice leadership skills, emerging adults may lose confidence in their leadership abilities.

**Leadership Ability and College Status**

College status, whether an individual attends a 4-year university, community college, or no college at all, is a particularly salient change in context during emerging adulthood that may affect perceived leadership ability. During emerging adulthood, many individuals begin to pursue higher education (Arnett, 2004), but others do not have the luxury of engaging in this time of personal and professional discovery (Bynner, 2005; Syed & Mitchell, 2013). Financial constraints and family commitments require many emerging adults to enter the workforce immediately after high school. This difference in context may have implications for individuals’ perceived leadership ability.

Secondary schools provide opportunities for leadership in extracurricular activities and in the classroom, but after high school, individuals do not have access to the same opportunities to demonstrate leadership. For individuals who do not attend any postsecondary education after high school, declines in the availability of leadership opportunities may be especially pronounced. Entering the workforce without a postsecondary degree is a challenging process that is likely to yield positions that are low-paying and offer limited opportunities for leadership or autonomy (Zarrett & Eccles, 2006). Unemployment is also more likely for individuals without postsecondary degrees than those with associate or bachelor’s degrees (Bureau of Labor Statistics, 2018). Unemployed emerging adults have the lowest self-efficacy beliefs about their abilities to accomplish professional goals, as compared to individuals who are students or employed (Seiffge-Krenke, Persike, & Luyckx, 2013). As a result of their changing personal and professional roles and the associated psychological challenges, emerging adults who do not attend college are likely to experience decreased confidence in their leadership abilities.

Of those who do pursue postsecondary education in the United States, roughly half attend community colleges (Rosenbaum, Ahearn, Becker, & Rosenbaum, 2015). Student experiences in community colleges vary widely, but they are likely to present many of the same challenges faced by emerging adults who do not attend any postsecondary education. Rosenbaum, Ahearn, Becker, and Rosenbaum (2015) found that 8 years after high school graduation, 46% of individuals who attended community college had not attained a degree (as compared to 27% of individuals who attended 4-year colleges). Furthermore, community college students who did not attain degrees were as likely to be unemployed as their peers who did not attend any college. The majority of community colleges are nonresidential, and 59% of students attend part-time, compared to 27% of students in 4-year institutions (U.S. Department of Education, 2013). Because of their other roles and constraints on their time (which may include commuting to campus, working full-time jobs, and taking care of family obligations), community college students likely do not have the capacity to engage in the social aspect of college as students who attend 4-year colleges (Tinto, 1993). Even if extracurricular activities are available on campus, community college students may lack the time or desire to participate.

Emerging adults who attend 4-year universities are likely to have more opportunities for leadership than their peers who attend community colleges or no college. Furthermore, attending a 4-year college may prevent emerging adults from experiencing some of the challenges to perceived leadership ability faced by their peers, such as unemployment or participation in unskilled or semiskilled, entry-level jobs. A lack of research exists to explore the question of how perceived leadership ability changes over time with respect to individuals’ college status (i.e., attending 4-year university, attending community college, not attending college).

**Leadership Ability, College Status, and Race**

Most studies focused on leadership ability consider samples of predominantly high-achieving, White individuals who are often students in 4-year colleges or participants in leadership programs (e.g., Komives, Mainella, Osteen, Owen, & Longerbeam, 2005; Mortensen et al., 2014). LID theory, for example, was developed based on a series of studies conducted among a sample of university students in which nearly two thirds were White (Komives et al., 2006; Komives et al., 2009). Consequently, significant gaps exist in the literature regarding how leadership ability may change over time among marginalized populations, including African Americans.

Research on leadership development among African American emerging adults is important because they may experience the developmental period in a way that is substantively different from their White counterparts. African Americans and members of other minority racial groups are likely to face additional
challenges during emerging adulthood, such as racial discrimination, family obligations, and limited access to financial resources (Syed & Mitchell, 2013). Thus, while emerging adulthood is a time that presents challenges for individuals from all backgrounds (Arnett, 2005; Stone, Becker, Huber, & Catalano, 2012; Sussman & Arnett, 2014), it may be especially challenging for individuals from marginalized groups (Arnett, 2000, 2004). These constraints may limit the time available for African American emerging adults to participate in leadership opportunities in social or professional contexts.

It is also important to study how college status may influence the way that African American emerging adults’ perceived leadership ability changes over time. College status may affect perceived leadership ability differently for African Americans than for White emerging adults due to differences in access to leadership opportunities. Although access to opportunities is not the only contributor to an individual’s perceived leadership ability, having such opportunities is essential because it allows people to practice their leadership skills and build confidence in their abilities (Komives et al., 2006). African American emerging adults who do not attend college may have more opportunities for leadership as compared to White emerging adults who do not attend college. For example, churches provide opportunities for individuals to develop leadership skills (Davis, 1997), and previous research indicates that young African Americans report higher levels of religious involvement than their White peers (Donahue & Benson, 1995; Smith, Faris, Denton, & Regnerus, 2003; Wallace, Brown, Bachman, & Laveist, 2003). On the other hand, African American emerging adults who do attend college may have fewer opportunities for leadership than their White peers. As compared to White students, African American students pursuing higher education are more likely to perceive faculty members as being unfriendly and unsupportive and less likely to seek out interactions with them (Bush & Bush, 2010; Hurtado et al., 2011; Wood & Turner, 2010). Limited interactions with faculty may mean that African American students are less likely to receive mentorship from faculty on how to be effective leaders. Being mentored by faculty members is one of the strongest predictors of leadership development and leadership efficacy for college students (Dugan & Komives, 2007), so these strained relationships may lead to lower perceived leadership ability among African American students than White students. Additionally, Gardenhire-Crooks and colleagues (2010) found that African American students in higher education, particularly at Predominantly White Institutions (PWIs; Guiffrida, 2005), reported high rates of discrimination and often did not feel as though they belonged. This perceived discrimination and lack of belonging may result in lower self-esteem (Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007) and inhibit perceived leadership ability (Chemers et al., 2000).

**Current Study**

In this study, we examine changes in individuals’ perceived leadership ability during emerging adulthood among a sample of predominantly African American individuals. We focus particularly on how college status may be an important contextual influence on individuals’ perceived leadership ability. Based on developmental perspectives that suggest leadership ability changes over time and is influenced by contextual factors (e.g., Komives et al., 2006), we hypothesize that perceived leadership ability will decline during emerging adulthood. Given that individuals who do not attend higher education after high school may have fewer experiences to practice leadership skills (Zarrett & Eccles, 2006), we hypothesize that the decline in perceived leadership ability will be greatest for individuals who do not attend 4-year universities or community college.

**Method**

**Participants**

Data were collected as part of a longitudinal study of 851 adolescents in four public high schools in Flint, Michigan. The initial study was focused on school dropout and substance abuse. Accordingly, students who were deemed at risk for high school dropout at the beginning of ninth grade were recruited for the study. Students were eligible to participate if they were enrolled in one of Flint’s four main public high schools, had an eighth-grade grade point average (GPA) of 3.0 or below, and were not eligible for special education (Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000). Structured interviews began in ninth grade (Wave 1) and were conducted annually for 4 years, until students’ expected year of high school graduation (Wave 4). Interviews resumed 2 years later (Wave 5) and continued annually for 3 years, concluding 8 years after the first wave and 4 years after students’ expected high school graduation (Wave 7). Flint Adolescent Study data, questionnaires, and scale information are publicly available at http://www.icpsr.umich.edu and http://fas.sph.umich.edu

This study utilizes data from Waves 4 to 7, when participants were between the ages of 18 and 22. At Wave 1, participants were freshmen in high school with an average age of 15 (SD = 0.64). The response rate from Waves 1 to 7 was 68% (i.e., 32% of our sample at Wave 1 did not participate at Wave 7). Participant demographics are shown in Table 1.

**Measures**

Descriptive statistics, correlations, and Cronbach’s z-s for study variables are shown in Table 2.

**Demographics.** Parents’ occupational prestige was measured at Wave 1 using 1 item that requested the current profession of each of the participant’s parents. Participants’ scores reflect the highest score of either parent as reported by participants (Nakao & Treas, 1992). For participants in this study, parents’ occupational prestige ranged from 29.28 (household work) to 64.38 (professional). The mean occupational prestige score, 39.92 (SD = 10.41), is equivalent to blue-collar employment (e.g., automobile factory worker). Parental education was measured at Wave 1 using 1 item that requested the highest
level of education achieved by each parent. Response options ranged from 1 (completed grade school or less) to 7 (graduate or professional school after college). Scores reflect the highest reported education level of the respondent’s parents. The mean parental education score for this sample, 4.35 (SD = 1.43), represents completion of high school and subsequent vocational training. Eighth-grade GPA was calculated using 1 item measured on a 4-point scale (1.0 = D, 4.0 = A), based on school records collected at Wave 2.

**Self-esteem.** Given the established relationship between self-esteem and leadership ability (Chemers et al., 2000), we controlled for self-esteem. We measured self-esteem at Wave 4 using the Self-Acceptance subscale of the Bentler Psychological Inventory, a well-validated and reliable measure (Bentler & Newcomb, 1978; Stein, Newcomb, & Bentler, 1986). Participants responded to 4 items asking them to report how true pairs of statements were for them (e.g., I am happy with myself or unhappy with myself). Response categories ranged from 1 (the first statement is true for me) to 5 (the second statement is true for me). The scale score was calculated as the mean of these 4 items, with higher scores reflecting greater self-esteem.

**College status.** Participants responded to 1 item at Waves 5, 6, and 7 asking whether they currently attended any type of education, including adult high school or general educational development (GED), training, community college, or university. We conceptualized college status according to three groups (no college, community college, and university), which represented the highest level of education that the participant reported attending between Waves 5 and 7. We created a dichotomous variable for community college, where 1 indicated that the participant’s highest level of education was high school or a GED. The reference group, university, included participants whose highest level of attainment was a 4-year college or university. Of the 851 participants in the sample, 351 were in the no college group (78% African American, 18% White, and 4% multiracial), 252 were in the community college group (82% African American, 16% White, and 2% multiracial), 118 were in the university group (90% African American, 9% White, and 1% multiracial), and 129 did not report their college status at any point between Waves 5 and 7 (73% African American, 23% White, and 5% multiracial).

**Perceived leadership ability.** Perceived leadership ability was measured at Waves 4–7 using 3 items from the Leadership Competence subscale of Zimmerman and Zahniser’s (1991) Sociopolitical Control Scale. The items were, “Other people usually follow my ideas,” “I am often a leader in groups,” and “I can usually organize people to get things done.” Participants responded using a 5-point scale where 1 = not true and 5 = very true. The scale score was calculated as the mean of these 3 items, with higher scores reflecting greater perceived leadership ability. The psychometrics of this subscale have been tested in multiple studies, and the measure has demonstrated strong construct validity and high internal consistency reliability across various populations (Christens & Peterson, 2012; Itzhaky & York, 2003; Peterson et al., 2006). For example, the internal consistency reliability among a sample of adults from low socioeconomic neighborhoods was .80 (Itzhaky & York, 2003).

**Data Analytic Strategy**

We conducted a linear latent growth model (LGM) with Mplus, Version 7 (Muthén & Muthén, 2012), to explore change in perceived leadership ability during emerging adulthood. As illustrated in Figure 1, the model uses four waves of data to estimate two latent factors: participants’ perceived leadership ability at age 18 (intercept) and changes in perceived leadership ability during emerging adulthood (slope). Factor loadings between the intercept latent factor and all four waves of leadership were fixed to 1. Factor loadings between the slope latent factor and the four waves of leadership data were fixed to 0, 2, 3, and 4 to reflect the amount of time between waves of data collection, including the 2-year span between Waves 4 and 5 (Preacher, Wichman, MacCallum, & Briggs, 2008).

To test the hypothesis that perceived leadership ability would decline most for individuals who did not attend college, we fit two additional models. Model 2 includes time-invariant covariates: sex, race, parents’ occupational prestige, parental education, and GPA. We coded sex as 1 = female and 2 = male and created two dichotomous variables for race (White and multiracial) that use African Americans as the reference group. Given the well-established link between self-esteem and perceived leadership ability (Chemers et al., 2000; Komives et al., 2006; Komives et al., 2009), we also included self-esteem as a fixed effect. In Model 3, we added two dichotomous variables for college status (community college and
(university) that use participants who did not attend any college as a reference group in order to detect an effect of college status on perceived leadership ability after controlling for sociodemographic factors and self-esteem.

Model fit was based on multiple indices: the comparative fit index (CFI; Bentler, 1990), the Tucker–Lewis index (TLI; Marsh, Balla, & McDonald, 1988), the root mean square error of approximation (RMSEA; Steiger, 1990), and the standardized root mean square residual (SRMR). Model fit was considered good if the CFI was greater than or equal to .95 (Hu & Bentler, 1999), the TLI was greater than .90 (Hu & Bentler, 1999), RMSEA was less than or equal to .05 (Browne & Cudeck, 1993), and the SRMR was less than or equal to .08 (Hu & Bentler, 1999). To compare the fit of Model 2 and Model 3, we conducted a Satorra–Bentler scaled \( \chi^2 \) difference test (Muthén & Muthén, n.d.; Satorra & Bentler, 1999). Furthermore, we compared the Akaike information criterion (AIC; Burnham & Anderson, 1998) values. We used a maximum likelihood estimator with robust standard errors (method MLR) in order to produce parameter estimates and standard errors that are robust to nonnormality of variables and use all available data (Muthén & Muthén, 2012). We conducted an attrition analysis comparing participants with missing data on any study variables \((n = 474)\) and complete data on all study variables \((n = 377)\), and only a difference between sexes was found. We found that males were more likely to have missing data compared to females, \( \chi^2(1) = 21.66, p < .001; \) however, we have no reason to believe this difference is systematic. As such, we are making the assumption that missing data are missing at random.

### Results

#### Model 1: Basic LGM

Mean intercept at Wave 4, which reflects age 18 and the senior year in high school (based on on-track progression through
high school), was 3.63 ($p < .001$) and the mean slope was $-.06$ ($p < .001$), indicating that mean leadership decreased over time. Fit indices, listed in Table 3, show that the basic LGM model fit the data well. Variance in the latent variables for intercept (.36, $p < .001$) and slope (.02, $p = .001$) indicate that this model does not fully account for differences in participants’ perceived leadership ability at age 18 or their change in perceived leadership ability between age 18 and 22.

**Model 2: LGM With Covariates**

To explain the variation in the intercept and slope of perceived leadership ability, we introduced covariates into the model: sex, race, parents’ occupational prestige, parental education, GPA, and self-esteem. As compared to African American participants, White participants had lower perceived leadership ability at age 18 ($-1.4, p = .002$). Parental education (.12, $p = .03$) and self-esteem (.22, $p < .001$) were both related to higher perceived leadership ability at age 18. Perceived leadership ability at age 18 (Wave 4 intercept) predicted slope ($-.37, p = .003$), such that the decrease in perceived leadership ability from age 18–22 was greater for individuals who had higher perceived leadership ability at age 18. GPA predicted slope (.14, $p = .03$), such that higher GPA was related to a smaller decrease in perceived leadership ability from age 18–22. Variance in the latent variables for intercept (.88, $p < .001$) and slope (.86, $p < .001$) indicate that this model still does not fully account for differences in participants’ perceived leadership ability at age 18 or their change in perceived leadership ability between ages 18 and 22. Fit indices, listed in Table 3, show that the LGM model with covariates fit the data well.

**Model 3: LGM With Covariates and College Status**

Finally, we added college status to the model as a predictor of slope. College status was not included as a predictor of intercept because intercept data were collected at age 18, prior to high school graduation. We used university as the reference group and included two dichotomous variables (no college and community college) in the model. As in Model 2, race predicted perceived leadership ability at age 18; White participants had lower perceived leadership ability at age 18 than did African American participants ($-1.4, p = .002$). Higher parental education (.12, $p = .03$) and self-esteem (.22, $p < .001$) continued to be related to higher perceived leadership ability at age 18.

As in Model 2, intercept was related negatively to slope ($-.37, p = .002$), indicating that participants with the highest perceived leadership ability at Wave 4 had the greatest declines in perceived leadership ability from age 18 to 22. No college ($-2.1, p = .02$) and community college ($-1.8, p = .03$) both predicted slope, indicating that perceived leadership ability declined more for participants in these two groups than for participants in the 4-year university group. Figure 2 shows these changes in perceived leadership ability over time from Waves 4 to 7 among the three college status groups. Variance in the latent variables for intercept (.88, $p < .001$) and slope (.84, $p < .001$) indicate that Model 3 still does not fully account for differences in participants’ perceived leadership ability at Wave 4 or their change in perceived leadership ability between ages 18 and 22. Fit indices show that Model 3 fit the data well (Table 3). To look for differences between no college and community college, we also ran Model 3 with college variables calculated...
to use no college as the reference group. The analysis revealed no differences between no college and community college.

We performed a Satorra–Bentler scaled $\chi^2$ difference test (Muthén & Muthén, n.d.; Satorra & Bentler, 1999) to compare the fit of Models 2 and 3. Results of the test indicate that adding college status (Model 3) improved the fit of the model, TRd (6) = 18.87, $p < .01$.

**Discussion**

This study offers important contributions to our understanding of perceived leadership ability and emerging adulthood. First, our findings demonstrate that perceived leadership ability can change over time. More specifically, we found that perceived leadership ability declined from age 18 to 22 for participants in our sample. The malleability of perceived leadership ability has not previously been explicitly tested, but our findings provide support for our first hypothesis and demonstrate the malleability of perceived leadership ability. Second, this study demonstrates that perceived leadership ability can decrease over time. Contemporary leadership theories emphasize the idea that leadership ability can be learned and improved over time; this study demonstrates that leadership ability can also decrease over time. Third, our findings demonstrate that the decline in perceived leadership ability during emerging adulthood is most pronounced among individuals who attend community college or do not attend college at all, which supports our second hypothesis. Prior to this study, few researchers have examined how perceived leadership ability changes over time with respect to an individual’s college status. Finally, our study examined these relationships among a predominantly African American sample, whereas previous studies focused mostly on White individuals. This sample is significant because leadership development among African American emerging adults has been understudied and because their experiences are likely to include challenges that are different than their White peers, including racial discrimination, greater responsibilities, and more limited resources (Syed & Mitchell, 2013). Accordingly, results from previous studies cannot be generalized to African Americans.

Although there is still debate regarding the mutability of leadership ability, this study supports contemporary theories of leadership development, which postulate that leadership ability is malleable (e.g., Komives et al., 2006; Komives et al., 2009). In other words, our study contributes to our understanding of the nature of leadership as a set of skills and beliefs that can change over time and are context dependent, rather than characteristics that are innate and unchangeable. Our findings suggest that emerging adulthood produces a change in context that can result in changes to individuals’ perceived leadership abilities. When individuals experience obstacles to leadership development, such as the transitions that occur during emerging adulthood, perceived leadership ability may decrease. Decreased perceived leadership ability may reflect emerging adults’ awareness of their relative lack of experience and deficits in the skills required to engage in leadership behaviors in their new roles and responsibilities that come along with emerging adulthood. To understand whether decreased perceived leadership ability is a cause for concern or a normative developmental phenomenon, researchers might study changes in perceived leadership into later adulthood or explore relationships between emerging adults’ perceived leadership ability and other indicators of thriving (e.g., job autonomy, mental health).

This study provides insight into the experiences of individuals who do not attend 4-year universities after high school, a population that tends to be overlooked in the scholarly literature on both emerging adulthood and leadership development. For individuals who do not attend 4-year institutions, the challenges to perceived leadership ability during emerging adulthood may be amplified because of the limited opportunities and structures for engagement in organized activities (e.g., sports, social clubs, and political organizations). Accordingly, our findings suggest that interventions that create opportunities for leadership development among individuals who do not attend 4-year universities may be useful. For example, a program focused on building the capacity of employers to provide opportunities for leadership within their organizations may help increase or sustain the perceived leadership ability of individuals who do not attend 4-year universities. A large percentage of this population is in the workforce. In 2015, 39% of individuals attending community college full-time and 73% of individuals attending community college part-time were also employed (National Center for Education Statistics, 2016). As such, this population could benefit from increased opportunities for leadership in their workplace.

While the decline in perceived leadership ability during emerging adulthood was most pronounced among individuals who did not attend 4-year universities, perceived leadership ability for the entire sample decreased over time. This finding suggests that the opportunities and structures in place to promote leadership development at 4-year universities are not
enough to prevent a reduction in perceived leadership ability among a predominantly African American sample of emerging adults. African American students’ negative experiences in postsecondary institutions, including discrimination (Gardenhire-Crooks et al., 2010) and perceived hostility from faculty members (e.g., Bush & Bush, 2010), may impede their motivation and ability to seek out leadership development opportunities. These unfavorable experiences present one possible explanation as to why we found a decline in perceived leadership ability across all college status groups in this sample. This finding may highlight the importance of 4-year universities, particularly PWIs, implementing interventions and policies to increase positive relationships between faculty and African American students, including addressing discrimination taking place within their institutions. Increasing student-centeredness among faculty at these institutions may also be helpful (Guiffrida, 2005).

Although sociodemographic and psychological factors were included primarily as control variables, some interesting findings emerged. Our finding that African American participants reported higher perceived leadership ability than White participants at age 18 is not consistent with past research which suggests African Americans have lower levels of perceived leadership ability than Whites (Festekjian et al., 2014). One possible explanation is that the relationship between race and perceived leadership ability is not a result of membership in any particular racial group but is related to being a member of the majority. Participants in this study lived in an area that was predominantly African American, and so they may have had more opportunities to view African American men and women in leadership positions. For example, Black churches are more commonly located in African American neighborhoods and provide important opportunities for youth to observe African American community members in church leadership roles (Butler-Ajibade, Booth, & Burwell, 2012; Rubin, Billingsley, & Caldwell, 1994). Finally, parents’ occupational prestige and eighth-grade GPA were not related to perceived leadership ability. These findings are not consistent with past research, although they may be explained by the limited variation in the socioeconomic status and GPA of participants in the study sample.

Limitations

One limitation of the study is that the data were collected between 1994 and 2001. The age of the data raises questions about the contemporary relevance of the findings. Yet, the focus of this study was on testing a theory of leadership change over time, and that change may not be dependent on the moments in history in which data are collected. Our results support contemporary notions of leadership and suggest that these perspectives were also relevant over a decade ago. Thus, the age of the data actually provides compelling evidence that contemporary theories of leadership development actually stand the test of time. Nevertheless, future research on leadership would be useful to test the theory of leadership development with more current samples.

Another limitation of the study is how college attendance was categorized. We assigned college status according to participant’s highest level of education between ages 18 and 22 and so were unable to capture variation in individuals’ experiences during that time. Individuals who are categorized as attending 4-year universities may differ with regard to the duration and nature of their participation in those institutions. Some study participants may have graduated from a residential university and others may have enrolled part-time for a semester in a local university. Students’ experiences in community colleges also vary. Some community college participants may have had experiences that were more time-intensive and provided more opportunities for leadership than some participants in the 4-year college group. Yet, the fact that a somewhat crude measure of college attendance demonstrated hypothesized relationships suggests that the association may be quite robust. The results suggest that context can play a role in hindering leadership development, as well as promoting it, but further nuances in these relationships could not be explored with the measures included in this study. Future research that includes additional measures of participants’ college contexts, in addition to college status, will help us learn more about the factors that contribute to perceived leadership ability.

The measure of perceived leadership ability used in this study also presents limitations. The scale (Zimmerman & Zahniser, 1991) measures respondents’ self-reported beliefs about their leadership ability, as opposed to measuring specific skills or leadership roles. Accordingly, individuals’ scores reflect their confidence in themselves and their abilities, as well as their actual leadership skills. The difference between skills and efficacy beliefs is difficult to disentangle, but researchers suggest that both are critical components of leadership ability (Komives et al., 2005; Murphy, 2011; Popper & Mays, 2007; Zimmerman & Zahniser, 1991). Further research on predictors of self-reported leadership ability, as well as research linking self-reported leadership ability to psychological and behavioral outcomes, would contribute to our understanding of the roles and relative importance of leadership skills and beliefs.

Conclusion

The question of whether leaders are born or made underlies long-standing debates about the nature of leadership (Komives & Dugan, 2010; Rost, 1993). This study provides support for the idea that leadership ability can change in response to contextual factors. Findings show a decline in perceived leadership ability among emerging adults, with a particularly large decline among individuals who did not attend 4-year colleges.

Although this study is not intervention-focused, the findings may have implications for interventions that promote perceived leadership ability. For example, creating opportunities for emerging adults, especially those who do not attend 4-year colleges, to engage in leadership behaviors and develop leadership
skills may promote (or prevent declines in) perceived leadership ability during this developmental period. Fostering individuals’ perceived leadership ability is important, given that people with greater perceived leadership ability are more likely to take on leadership positions and lead change efforts (Paglis & Green, 2002). According to positive youth development scholars (e.g., Scales et al., 2011), these leadership beliefs and behaviors are a necessary precursor to individuals’ personal and professional thriving.

Another useful strategy may be to focus on individuals’ beliefs about what it means to be a leader. This strategy has been successful in other domains. Interventions focused on changing individuals’ beliefs about the nature of intelligence, for example, have been successful in promoting improved academic performance (Paunesku et al., 2015). Students who believe intelligence is malleable are more likely to exert the necessary effort and, as a result, demonstrate higher levels of academic achievement than peers who believe intelligence is a fixed trait (Dweck, 2006). Similarly, interventions that help individuals learn to view leadership ability as developmental may help promote greater perceived leadership ability. Beliefs that leadership ability can be learned and can be demonstrated by any member in a group may encourage individuals to be more optimistic about their leadership potential. These beliefs may be especially motivating for emerging adults who do not attend 4-year colleges, given that they are less likely to hold leadership positions. Our study suggests that research on competencies that contribute to effective leadership would be a useful direction for future work.

**Author Contribution**

Stephanie S. Moore contributed to conception and design, acquisition, analysis, and interpretation; drafted the manuscript; critically revised the manuscript; gave final approval; and agrees to be accountable for all aspects of work ensuring integrity and accuracy. Carissa J. Schmidt contributed to analysis and interpretation, critically revised the manuscript; gave final approval, and agrees to be accountable for all aspects of work ensuring integrity and accuracy. Justin E. Heinze contributed to conception and design, analysis, and interpretation; critically revised the manuscript; gave final approval; and agrees to be accountable for all aspects of work ensuring integrity and accuracy. Matt A. Diemer contributed to analysis and interpretation, critically revised the manuscript; gave final approval, and agrees to be accountable for all aspects of work ensuring integrity and accuracy. Marc A. Zimmerman contributed to conception and design, acquisition, and interpretation; critically revised the manuscript; gave final approval; and agrees to be accountable for all aspects of work ensuring integrity and accuracy.

**Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: National Institute on Drug Abuse: 10.13039/100000026, DA07484.

**References**


Thomas, J. (2017). The difference in perceived transformational leadership of African-American males as a result of skin complexion (Doctoral dissertation, Our Lady of the Lake University).


Author Biographies

Stephanie S. Moore is an evaluation specialist in the Center for Education Design, Evaluation, and Research in the UM School of Education. She earned her PhD in Education and Psychology at UM. Her research interests include positive youth development and out-of-school time programming.

Carissa J. Schmidt is a postdoctoral research fellow with the NICHD-funded Firearm Safety Among Children and Teens (FACTS) consortium. She earned her PhD in Health Behavior and Health Education at the UM School of Public Health. She specializes in quantitative methodology and her interests focus on adolescent health and resilience, youth violence prevention, and positive youth development.

Justin E. Heinze is an assistant professor in the Department of Health Behavior and Health Education in the UM School of Public Health. His research interests include developmental transitions, social exclusion/ostracism, school safety, and longitudinal data methodology.

Matthew A. Diemer is a professor in the UM School of Education and a developmental psychologist who examines how young people resist, challenge, and overcome racial, ethnic, socioeconomic and other constraints in school, college, work, and civic/political institutions. He earned his PhD from Boston College.

Marc A. Zimmerman is Marshall H. Becker collegiate professor of Public Health at UM, professor of Health Behavior and Health Education, professor of Psychology, and director of the Prevention Research Center of Michigan and the Michigan Youth Violence Prevention Center. His research focuses on adolescent health, resiliency, and empowerment theory.