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Adolescent Civic Engagement and Adult Outcomes: An Examination Among Urban Racial Minorities

Wing Yi Chan · Suh-Ruu Ou · Arthur J. Reynolds

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Abstract Civic engagement in adolescence is encouraged because it is hypothesized to promote better civic, social, and behavioral outcomes. However, few studies have examined the effects of civic engagement on youth development over time. In particular, the long-term association between adolescent civic engagement and development among racial minority youth who are exposed to high levels of risk factors is understudied. Using data from the Chicago Longitudinal Study (CLS; $N = 854$; 56.6 % were female; 93 % were African Americans and 7 % were Latinos), this study examined the associations between civic engagement in adolescence and outcomes during emerging adulthood among racial minority youth. Regression analyses found that civic engagement in adolescence is related to higher life satisfaction, civic participation, and educational attainment, and is related to lower rates of arrest in emerging adulthood. The findings suggest that adolescent civic engagement is most impactful in affecting civic and educational outcomes in emerging adulthood. The present study contributes to the literature by providing support for the long-term associations between adolescent civic engagement and multiple developmental domains in adulthood among an inner-city minority cohort.

Keywords Civic engagement · Racial minority youth · Emerging adulthood

Introduction

Many studies have found that civic engagement is associated with positive developmental outcomes (Johnson et al. 1998; Larson et al. 2006; Ludden 2011; Schmidt et al. 2007). However, its long-term effects have not been examined fully. In addition, despite recent calls for a closer investigation on how engaging in civic activities potentially can impact the lives of adolescents who have the greatest need, few studies have examined the impact of civic engagement for racial minority adolescents who are exposed to a high level of risk. Moreover, researchers have pointed out that the civic opportunity gap exists well before the young adult years (Flanagan 2009; Kahne and Middaugh 2009). In high poverty neighborhoods, schools offer fewer civic learning activities and communities offer fewer organized activities (Hart and Atkins 2002). Therefore, civic engagement is a potentially important topic for disadvantaged groups than it is recognized. Using a sample of at-risk racial minority youth (93 % African American and 7 % Latino), the present study examined the long-term associations between civic engagement in adolescence and developmental outcomes during emerging adulthood.

Literature Review of Civic Engagement and Youth Development

The term “civic engagement” has been widely used, and the definitions can encompass a wide range of activities with different age groups emphasizing different aspects of

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the term (Adler and Goggin 2005). Research from psychology and political science has changed the definition of civic engagement over the years to capture the diverse civic activities of youth. The purpose of the present study is to examine the associations between adolescent civic engagement and adult outcomes. Considering the accessibility of civic activities to adolescents, a broad definition of civic engagement is used in the present study.

Civic engagement includes individual and collective activities intended to identify and address issues of public concern, and enhance the well-being of one's community and the society (Zaff et al. 2010, 2011). Civic engagement comes in many forms, such as individual volunteering and organizational involvement, and activities, such as participation in community activities to help homeless families and writing a letter to a newspaper. Youth civic engagement has the potential to benefit both individuals and the society. For example, civic engagement can promote healthy and successful development for individuals (Balsano 2005; Hart and Kirshner 2009). In addition, youth civic engagement is good for the institutions and communities in which youth live. Schools and communities can function better when they can utilize the energy and knowledge of youth rather than having to manage alienated adolescents (Putnam 1993). Moreover, civic engagement enhances political equality in the long run (Kahne and Middaugh 2009; McFarland and Thomas 2006).

Many studies have been conducted on youth civic engagement, such as how civic engagement develops, how civic engagement varies by groups (e.g., age), and what later outcomes are linked to youth civic engagement (Flanagan and Christens 2011; Gaventa and Barrett 2012; Youniss and Levine 2009). Those studies lead us to review three areas of research. First, empirical research on youth civic engagement and development in four domains, social and emotional development, civic development, educational achievement, and problem behaviors, are reviewed. Second, long-term associations between youth civic engagement and later outcomes are reviewed. Third, civic engagement and high risk youth are discussed. Finally, a short summary concludes this section.

Youth Civic Engagement and Developmental Outcomes

Social and Emotional Development

Civic engagement has been found to relate to better social and emotional development, such as depressive symptoms and emotional regulation (Albanesi et al. 2007; Denault et al. 2009; Hansen et al. 2003; Larson et al. 2006; Ramey et al. 2010). In comparison to engaging in academic activities, arts, and sports, civic participation was

associated with higher rates of leadership development, integration with family, connection to community, identity reflection and emotional regulation among a group of high school students (Hansen et al. 2003). Students who participated in youth clubs (e.g., scouts and volunteering) reported lower numbers of depressive symptoms in comparison to students who participated in other activities (Denault et al. 2009). Students who participated in faith-based and service activities were more likely to report experiencing a "positive turning point" in comparison to students who participated in other activities. Students reported higher levels of identity exploration and stronger connection with family and adults in the community when participating in faith-based activities (Larson et al. 2006). Further, the positive association between civic engagement and social and emotional development did not differ by gender, race, or geographical location (urban vs. rural) (Fredricks and Eccles 2010). Participation in civic activities might link to better social and emotional development through opportunities to experience a sense of community (Albanesi et al. 2007).

Civic Development

Numerous studies have been conducted on the association between youth civic engagement and adult civic engagement (Yates and Youniss 1998; Youniss et al. 2002). Civic engagement during adolescence is associated with a greater likelihood to participate in civic activities in the future (Finlay and Flanagan 2013; Fredricks and Eccles 2006; Johnson et al. 1998; McFarland and Thomas 2006; Metz et al. 2003; Schmidt et al. 2007). High school students who participated in civic activities (i.e., direct contact with individuals in need, assisting organizations, and assisting the environment and animals) reported higher levels of civic knowledge and civic efficacy (a 16 % increase in civic knowledge) (Schmidt et al. 2007). Involvement with youth voluntary associations concerning community service, representation, speaking in public forums, and generating a communal identity particularly encourage future political participation regardless of class background and other school memberships (McFarland and Thomas 2006). The findings suggest that students who volunteered reported a greater likelihood to participate in activism and higher levels of social concern than those who did not volunteer. Students who volunteered for a social cause (e.g., volunteer at a homeless shelter) reported higher intention to volunteer after high school than those who volunteered for standard service (e.g., tutoring) and those who did not volunteer (Metz et al. 2003). Participation in civic activities during adolescence might contribute to civic development by increasing one's civic knowledge and intention to engage in various civic and political activities in the future.

Educational Achievement

Participation in civic activities is associated with greater educational achievement (e.g., Denault et al. 2009; Fredricks and Eccles 2006, 2010; Ludden 2011). Volunteering and participation in civil rights and community organizations in 11th grade are found to be associated with higher GPAs and greater levels of educational expectations 2 years later for both African American and White adolescents (Fredricks and Eccles 2010), controlling for gender, race, socioeconomic status, and most importantly, general motivation to eliminate the selection effect. Controlling for demographic and socioeconomic characteristics, participation in service activities in high school was related to a 12 % increase in GPAs the next year (Schmidt et al. 2007). The outcomes vary by type of service activities. In a sample of rural 8th and 9th grade students, participation in school-based, community-based, and religion-based civic activities is related to higher GPAs and greater academic self-esteem (Ludden 2011). Finally, a recent qualitative study found that racial minority college students who enroll in service-learning classes, in which they are required to complete community service that is directly related to their course work, associate their experience to a greater desire to continue their education despite the feelings of alienation from time to time (Chan 2011). Participation in civic activities might relate to better academic performance through opportunities to build interpersonal competence and skills that are critical to educational achievement (Mahoney et al. 2003), or facilitate youth's connections to school by linking them to supportive peers and adults (Eccles et al. 2003).

Problem Behaviors

Civic engagement is related to a lower number of problem behaviors, such as aggressive behaviors and substance use (Denault et al. 2009; Vieno et al. 2007; Schmidt et al. 2007). Controlling for demographic and socioeconomic characteristics, participation in service activities in high school was related to a 15 % decrease in behavioral problems (Schmidt et al. 2007). Italian adolescents who participated in civic activities (e.g., volunteering, participation in church-based community service) moderately (i.e., between 1 and 4 days a week) reported fewer aggressive behaviors and lower levels of smoking and drinking than those who did not participate in civic activities (Vieno et al. 2007). In a group of rural eighth and ninth graders living in the Midwest, Ludden (2011) found that those who participated in school-based or religion-based civic activities reported fewer problem behaviors at school and lower monthly use of marijuana than those who did not participate in school-based or religion-based civic

activities respectively. In addition, those who were involved with religion-based civic activities reported lower monthly use of cigarette and alcohol than those who were not involved. Civic activities might be associated with problem behaviors negatively because participation in civic activities allows youth to develop positive connections with adults and sense of competence, which have been found to be related to lower rates of engagement in violence, substance use, and other problem behaviors (Ludden 2011; Vieno et al. 2007).

Long-term Effects of Civic Engagement

The findings on the association between civic engagement and positive youth development are promising (Eccles et al. 2003; Hart and Kirshner 2009). However, the long-term relationship between civic engagement and development is understudied. Studies have found that adolescent civic engagement is related to better civic outcomes during adulthood (Finlay and Flanagan 2013; Flanagan 2009; Fredricks and Eccles 2006, 2010; Johnson et al. 1998; McFarland and Thomas 2006; Obradović and Masten 2007). For example, among a group of racially diverse children, those who participated in organized youth activities including volunteering and service activities during adolescence were more likely to participate in civic activities as adults (i.e., volunteer, to vote, to testify in court, to serve as a juror, and to know more about current events) (Obradović and Masten 2007). However, the associations between adolescent civic engagement and other developmental outcomes are less clear. For example, volunteering in 9th grade was a significant predictor of work values, perceived importance of community involvement, and civic activities, but it was not related to positive and academic self-esteem reported in 12th grade after controlling for self-selection (Johnson et al. 1998). Recently, using latent class analysis, a study examined the longitudinal impact of out-of-school activities during adolescence on civic outcomes and alcohol use during adulthood (Finlay and Flanagan 2013). Although the findings highlight the long-term associations between civic engagement in adolescence and outcomes in adulthood, the clustering of both positive (e.g., volunteering) and negative (e.g., monthly alcohol use) out-of-school activities makes it difficult to delineate the unique contribution of positive activities (e.g., civic engagement).

Most studies on youth civic engagement are cross-sectional; and among those that collected data across time, most of the data were collected at no more than 2 years apart. Thus, it is difficult to determine the direction and magnitude of the relationships between civic engagement and outcomes. Of the few longitudinal studies that do exist, they produce conflicting and inconclusive results (Finlay and

Flanagan 2013; Fredricks and Eccles 2006; Johnson et al. 1998; Obradović and Masten 2007). More longitudinal studies will provide insights into the long-term effects of youth civic engagement, and shed light on the paths from youth civic engagement to positive youth development.

Civic Engagement and At-risk Youth

It is well established that at-risk groups, such as economically disadvantaged children, are likely to have poor development. As a result, many programs have been designed to promote positive development for at-risk population. For example, early childhood education is a preventive intervention for economically disadvantaged children (Zigler and Berman 1983). The goal of such programs is to improve disadvantaged children's skills so that they can begin school on an equal footing with their more advantaged peers. Civic engagement has the potential to become an important component of such intervention. Nevertheless, although at-risk youth might benefit more from civic engagement, the findings on the potential benefits of civic engagement have been mainly based on research with samples of working and middle class white youth. Only a limited number of studies have examined the effects of civic engagement among minority and low-income youth (Chan 2011; Fredricks and Eccles 2006, 2010).

Some studies have found that the effects of civic engagement were consistent across the majority of youth characteristics except socioeconomic status with the benefits of civic engagement being greatest for youth from lower socioeconomic backgrounds (Marsh and Kleitman 2002). This is a crucial gap because some researchers have suggested that civic engagement may be especially important for low-income and minority youth who are at risk for poorer developmental outcomes. However, at-risk youth are likely to have limited access to civic participation (Atkins and Hart 2003; Mahoney et al. 2005; Kahne and Middaugh 2009). For youth living in urban neighborhoods, opportunities to participate mainly occur in institutions such as schools, churches, and youth groups (Hart and Kirshner 2009). In addition, time spent with parents discussing politics is related to civic engagement among African American and Latino youth (Smetana and Metzger 2005; Torney-Purta et al. 2007). The specific opportunities and activities among African American and Latino youth are considered when we operationalized civic engagement in the present study.

Several factors explain why at-risk youth might benefit more from civic engagement. First, civic engagement might provide at-risk youth a sense of empowerment. Many minority youth experience marginalization and alienation because of systemic racism and oppression (e.g., Grollman 2012; Yeh et al. 2008). Through participating in civic

activities, such as youth organizing to solve community problems, minority youth have the opportunity to demonstrate their strengths and realize their rights as contributing members of their community (Watts and Flanagan 2007). Previous studies have argued that activities that provide youth opportunities to lead, to take ownership of the programs, and to develop a sense of community with peers lead to a sense of empowerment, which is related to positive outcomes for adolescents and young adults (Camino and Zeldin 2002; Lakin and Mahoney 2006). Second, civic engagement might benefit at-risk youth because participation in civic activities limits time for youth to be involved in risky behavior, connects youth to supportive adults who can provide them guidance, and enhances the opportunity to develop relationships with peers who value conventional norms, which then buffer the harmful effects caused by living in high poverty neighborhoods (Fredricks and Eccles 2010). Finally, civic engagement provides adolescents with opportunities to develop their skills that are underdeveloped by poor experiences in schools and opportunities to bind to institutions that can buffer the deleterious effects of stress and crime in high poverty neighborhoods (Kahne and Middaugh 2009). The potential positive effects of civic engagement make it critical to understand among at-risk youth.

To summarize available literature, studies suggest that engaging in civic activities during adolescence is associated with greater academic achievement, social and emotional adjustment, and civic development; it also is associated with fewer problem behaviors. Two issues are raised from the existing research. First, the existing literature does not provide strong evidence of the long-term impact of youth civic engagement on development. Investigations of longitudinal effects of civic engagement are warranted. Second, although researchers have suggested that at-risk youth might benefit most from civic engagement, at-risk youth were not focused in previous studies. Investigations of civic engagement of at-risk youth can provide insights into the effects of civic engagement for this group, and findings can be applied to design effective programs involving civic engagement to promote healthy development.

The Present Study

Using a longitudinal study cohort born in 1980, the present study investigated the longitudinal associations between civic engagement in adolescence and outcomes across multiple domains in emerging adulthood (i.e., educational, social-emotional, civic, and behavioral) in a group of at-risk minority youth. The hypothesis of the present study is that civic engagement in adolescence is associated with better positive outcomes and fewer problem behaviors in

Table 1 Characteristics of the study sample

Characteristics	Original sample (N = 1,539)	Study sample (N = 854)	Attrition sample (N = 685)
Black (%)	93.0	93.4	92.4
Female (%)	50.2	56.6	42.1***
Mother did not complete HS by child's age 3, (%) ^a	54.0	51.4	57.3*
Single parent by child's age 3, (%) ^a	75.6	75.5	75.7
Four or more children in household by child's age 3, (%) ^a	17.3	17.8	16.6
Mother was teen (< 18) at child's birth, (%) ^a	16.7	14.3	19.8**
Mother unemployed by child's age 3, (%) ^a	62.9	64.4	60.5
TANF/AFDC participation by child's age 3, (%) ^a	62.2	61.2	63.5
Eligible for free lunch by child's age 3, (%) ^a	82.7	83.5	81.6
60 % or more poverty in school attendance area, (%) ^a	76.0	77.6	73.9
Number of Family risk index (8-point scale) ^{a,b}	4.52	4.47	4.59
Missing any family risk indicator, (%)	16.2	7.9	26.7***
Any child welfare case histories by age 3, (%)	4.1	3.1	5.7*
Low birth weight (<2,500 gms), (%)	12.4	12.3	12.6
Participation in CPC preschool program, (%)	64.3	67.4	60.3**
Participation in CPC follow-on program, (%)	55.2	57.4	52.6

^a Indicators included in the family risk index

^b *F* tests were conducted for those measures. Chi square tests were used for other measures.

* $p < .05$, ** $p < .01$,

*** $p < .001$

emerging adulthood. Our study is unique in three important respects. First, it uses longitudinal data that span from birth to young adulthood, which is in contrast to cross-sectional or short-term designs employed in previous studies. Second, the source of data, the Chicago Longitudinal Study, includes a wide range of outcomes (i.e., academic, social-emotional, and criminal activity), which allows us to examine development across various domains. Finally, the sample of CLS consists of African American (93 %) and Latino (7 %) participants from low-income families living in an inner city, which provides a unique opportunity to examine the relationship between civic engagement and development among a group of at-risk minority youth.

The conceptual framework used in the present study is the developmental cascades theory (Masten and Cicchetti 2010). Developmental science has long proposed that child development is contextual and that changes in developmental domains are transactional. The developmental cascades theory hypothesizes that competence and failure in one developmental domain can “spill over” to influence another domain across time (Masten and Cicchetti 2010). Moreover, the developmental cascades theory argues that earlier development directly influences later development; which implies the significance of childhood and adolescence on successful development into adulthood (Masten and Cicchetti 2010; Obradovic et al. 2010).

The developmental cascades theory informs research on youth civic engagement in two ways. First, competence and failure in civic engagement can influence functioning in other domains. Second, competence and failure through civic engagement in adolescence can influence

development into adulthood. In other words, civic engagement can function as a mechanism, which either promotes or hinders positive development. Thus, understanding the associations between adolescent civic engagement and adult outcomes can lead to effective preventive programs that promote positive development. Applying the developmental cascades theory, the hypothesis of the present study is that, through civic engagement, adolescents learn skills and competencies that are beneficial to functioning in other domains. Following this line of reasoning, the present study examined the extent to which civic engagement in adolescence is associated with adaptation in other developmental domains in emerging adulthood.

Method

Study Sample and Data

The study sample was drawn from the Chicago Longitudinal Study (CLS 2005), an ongoing investigation of a panel of low-income minority (93 % African American; 7 % Hispanic) children growing up in high-poverty neighborhoods in Chicago. The original sample ($N = 1,539$) of the CLS included 989 children who entered the Child-Parent Center (CPC) program in preschool and graduated from kindergarten in 1986 from 20 Centers, and 550 children who participated in alternative government-funded kindergarten programs in the Chicago Public Schools in 1986 without CPC preschool experience. The main goal of the

CPCs is to promote children's school competence, especially school readiness and academic achievement, by providing comprehensive educational and family-support services. Data have been collected longitudinally starting from child's birth from various sources, such as participants, parents, teachers, and schools (CLS 2005; Reynolds 2000).

The study sample included 854 youth whose status of civic engagement behavior could be determined at age 16 (10th grade). Because only 56 % of the original CLS sample is included in the present study, the characteristics of the original sample and comparisons between the two groups, study sample and youth not included in the study sample, are examined (See Table 1). There were significant differences between the study and attrition samples in some characteristics, including gender ($p < .001$), maternal education ($p < .05$), mother's age at birth ($p < .05$), child welfare history by age of 3 ($p < .05$), CPC preschool participation ($p < .05$), and if missing on any of the 8 indicators of family risk index ($p < .001$). Compared to the attrition sample, the study sample includes more female, fewer mothers who did not complete high school, fewer mothers who were <18 years old when their child was born, fewer child welfare cases by age of 3, fewer people had any missing value on the 8 family risk indicators, and more people participated in the CPC preschool program. The differences indicated that the study sample is slightly more advantaged than the attrition sample.

Measures

Adolescent Civic Engagement

Civic engagement during adolescence was assessed by participants' responses to the following items at age 16 (10th grade): (1) read newspaper at least 3 times a week, (2) active in one or more school organizations, (3) an active member of a church or religious group, (4) talk to my parents about issues in the news, and (5) active in school clubs or organizations. Participants answered either "Yes" or "No" to each item; "Yes" was recoded to be a score of "1" and "No" was recoded to be a "0". The five items are positively correlated with each other significantly ($p < .001$). As an attempt to assess the level of civic engagement, a composite score of civic engagement was calculated by summing all the recoded responses (ranges from 0 to 5). Higher scores represent greater levels of civic engagement.

Future Optimism

Future optimism was measured at the age of 22/24; it was measured by five items assessing how optimistic

participants were about accomplishing the things that mainstream society values in the future. The five items are (1) what are the chances you will graduate from college, (2) what are the chances you will have a job that pays well, (3) what are the chances you will have a job you enjoy doing, (4) what are the chances you will have a happy family life, and (5) what are the chances you will own your own home. Participants rated these items on a 4-point Likert scale ranging from 1 (poor) and 4 (excellent) ($\alpha = .82$). Mean of the five items was calculated to measure future optimism.

Prosocial Attitudes

Attitudes toward prosocial behaviors were also measured at the age of 22/24; it was measured by three self-reported items: (1) how important is helping others who are in difficulty, (2) how important is helping to promote racial understanding, and (3) how important is becoming a community member. Participants rated these items on a 4-point Likert scale ranging from 1 (not at all important) to 4 (extremely important) ($\alpha = .62$). Mean of the three items was calculated to measure prosocial attitudes.

Life Satisfaction

Participants rated their overall life satisfaction on a 5-point Likert scale (1 = poor and 5 = excellent). It was also measured at the age of 22/24.

Adult Civic Engagement

Adult civic engagement at age 22/24 was assessed by participants' responses to the following questions: (1) have you participated in youth organizations? (2) have you participated in church or religious activities? and (3) have you participated in community centers or neighborhood clubs? Participants answered either "Yes" or "No" to each item; "Yes" was recoded to be a score of "1" and "No" was recoded to be a "0". The three items are positively correlated with each other significantly ($p < .001$). A composite score of adult civic engagement was calculated by summing all the recoded responses (ranges from 0 to 3). Higher scores represent greater levels of civic engagement in emerging adulthood.

Educational Attainment

Educational attainment was measured by years of school completed by the age of 28. Year of school ranges from 8 to 18. Participants who obtained a GED were assigned a value of 12; college attendance is coded depending on the number of credits earned. Thirty credits were treated as

1 year of college attendance. Data were collected from colleges that participants attended and supplemented with self-report.

Substance Use

Substance use was measured by the age of 26. Participants who reported use of any of the substances (i.e., alcohol, tobacco, marijuana, and drugs harder than marijuana) or who had any drug or alcohol related conviction (such as drug possession, drug manufacturing/delivery, drug conspiracy, and driving under the influence, DUI) by the age of 26 received a “1”. Otherwise, they received a “0”. 24.9 % of participants reported using at least one substance. Data were collected through self-report and official records.

Arrest

Adult arrest was measured by the age of 26. Participants who reported any arrest or had any official records of arrest between the ages of 18 and 26 were coded as “1”. Otherwise, they were coded as “0”. 44.9 % of participants had at least one arrest. Data were collected through self-report and official records.

Gender and Race

For gender, females were coded as 1 and males were coded as 0. For race/ethnicity, Blacks were coded as 1 and Latinos were coded as 0.

Child Welfare History

Child welfare history is a dichotomous measure indicating whether participants have any history of child welfare case before the age of 4.

Family Risk Index

Family risk index includes eight socioeconomic risk factors that are frequently associated with child and family functioning (Bendersky and Lewis 1994; Rutter 1987). It was the sum of the dichotomously-coded risk factors measured from family surveys or school records between birth and the age of 3. The indicators are (1) mother did not complete high school, (2) mother’s teen parent status, (3) mother not employed full- or part-time, (4) residence in a single-parent family, (5) eligibility for a fully subsidized lunch defined as a family income at or below 130 % of the federal poverty line, (6) residence in a school neighborhood in which 60 % or more of children are in low-income families, (7) family public aid receipt (AFDC) and (8) four or more children in family. For the eight dichotomous measures, 1 indicated

the presence of a given characteristic, and 0 indicated the absence of the characteristic. Scores range from 0 to 7.

Child–Parent Center (CPC) Participation

The CPC preschool program has been found to be associated with positive long-term outcomes, such as lower rates of grade retention, juvenile arrest, and incarceration, and more years of education (e.g., Ou and Reynolds 2006; Reynolds et al. 2011). Therefore, program participation was included as a covariate. CPC program participation was measured by two measures: preschool participation and follow-up program participation. Participation in the CPC Preschool Program for 1 or 2 years was coded as 1; otherwise, they were coded as 0. Participation in the CPC follow-up program for 1–3 years was coded as 1; otherwise, they were coded as 0. The data came from school records at the time of participation.

Data Analysis

Regressions analyses were employed to analyze the data. Dichotomous variables were analyzed by logistic regressions. Explanatory variables were entered hierarchically, following this sequence: (1) gender and race, (2) child welfare history and family risk index, (3) CPC program participation, and (4) adolescent civic engagement. The sequence was determined based on the timing of the measures. The final model included all explanatory variables. SPSS 20 was used to conduct the analyses.

Results

Correlations among the explanatory and outcome variables were examined. All significant correlations were in the expected direction (see Table 2). Child welfare history was negatively related with future optimism ($r = -.11$, $p < .01$). Family risk level was negatively related with civic engagement during adolescence ($r = -.13$, $p < .001$), future optimism ($r = -.10$, $p < .01$), and education attainment ($r = -.22$, $p < .001$). The independent variable, civic engagement during adolescence, was positively related with adult civic engagement ($r = .23$, $p < .001$), future optimism ($r = .15$, $p < .001$), life satisfaction, ($r = .10$, $p < .05$), and educational attainment ($r = .18$, $p < .001$).

Tables 3 and 4 present the results on future optimism, prosocial attitudes, life satisfaction, civic engagement, and educational attainment. Civic engagement in adolescence was significantly associated with all outcomes except for prosocial attitudes. Civic engagement in adolescence was associated with higher levels of future optimism ($\beta = .14$, $t = 3.74$, $p < .001$), life satisfaction ($\beta = .09$, $t = 2.24$,

Table 2 Correlations among study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender	1														
2. Race	-.003	1													
3. CPC-preschool	.08*	-.002	1												
4. CPC-follow-up	.01	.02	.42***	1											
5. Child welfare history	-.06	.03	-.04	-.003	1										
6. Family risk index	.001	.07*	.02	-.02	-.05	1									
7. Family risk (w/missing)	.01	.06	.02	-.02	-.02	-.003	1								
8. CE-A	-.01	.02	.04	.05	-.04	-.13***	-.07	1							
9. CE-EA	-.002	-.01	.08*	.02	.03	-.01	-.01	.23***	1						
10. Future optimism	.09*	-.06	.02	-.03	-.11*	-.10*	.04	.15***	.19***	1					
11. Prosocial attitudes	.03	.02	-.01	-.02	.03	.01	-.01	.03	.16***	.21***	1				
12. Life satisfaction	.02	-.06	.002	-.05	-.01	-.08*	.001	.10**	.10**	.41***	.19**	1			
13. Years of school	.18***	-.10**	.06	.08*	-.002	-.22***	-.01	.18***	.16***	.29***	.01	.26***	1		
14. Substance use	-.03	-.06	-.01	-.01	.02	.04	.07*	.03	-.02	.08*	.09*	.08*	.02	1	
15. Arrest	-.01	-.02	.03	.02	.05	-.01	.03	-.07	.02	.04	.01	.06	.02	.44***	1
Mean								1.74	.70	3.40	3.47	3.17	12.33		
Standard deviation								1.31	.86	.62	.50	1.15	1.69		

Means and standard deviations are reported for all continuous variables. Child Welfare history = Any child welfare case histories before participation in CPC; Family risk index = Risk index when child aged 0–3; CPC-preschool = Participation in CPC preschool; CPC-follow-up = Participation in CPC follow-up; CE-A = Civic engagement in adolescence; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3 Hierarchical regression for civic engagement in adolescence predicting future optimism, and prosocial attitudes in emerging adulthood

Predictor	Future optimism				Prosocial attitudes			
	β	SE	R^2	ΔR^2	β	SE	R^2	ΔR^2
Entry of block 1			.01*				.001	
Gender	.19*	.05			.03	.04		
Race	-.05	.10			.02	.08		
Entry of block 2			.03***	.02**			.002	.001
Gender	.08*	.05			.03	.04		
Race	-.05	.10			.02	.08		
Child welfare history	-.10**	.13			.03	.11		
Family risk index	-.10**	.01			.01	.01		
Family risk (w/missing)	.03	.07			-.01	.05		
Entry of block 3			.03**	.002			.003	.001
Gender	.08*	.05			.03	.04		
Race	-.05	.10			.02	.08		
Child welfare history	-.10*	.13			.03	.11		
Family risk index	-.10*	.01			.01	.01		
Family risk (w/missing)	.03	.07			-.01	.05		
CPC-preschool	.03	.06			-.01	.05		
CPC-follow-up	-.05	.05			-.02	.04		
Entry of block 4			.05***	.02***			.004	.001
Gender	.08*	.05			.03	.04		
Race	-.05	.10			.02	.08		
Child welfare history	-.10**	.13			.03	.11		
Family risk index	-.08*	.01			.01	.01		
Family risk (w/missing)	.04	.06			-.002	.05		
CPC-preschool	.03	.06			-.01	.05		
CPC-follow-up	-.06	.05			-.02	.04		
CE-A	.14***	.02			.03	.02		

Child welfare = Any child welfare case histories before participation in CPC; Family risk = Risk index when child aged 0–3; CPC-preschool = Participation in CPC preschool; CPC-follow-up = Participation in CPC-follow-up; CE-A = Civic engagement in adolescence; * $p < .05$, ** $p < .01$, *** $p < .001$

$p < .05$), participation in civic activities ($\beta = .23$, $t = 6.11$, $p < .001$), and educational attainment ($\beta = .16$, $t = 4.80$, $p < .001$) during emerging adulthood. In other words, consistent with our hypothesis, after accounting for covariates, youth who engaged in higher levels of civic activity during adolescence reported more positive outcomes during emerging adulthood. The variance explained by the model varies by outcome. The model explained 5 % of variance in future optimism, 2 % in life satisfaction, 6 % in civic engagement, and 12 % in educational attainment. Civic engagement during adolescence was not associated with prosocial attitudes reported during emerging adulthood ($\beta = .03$, $t = .89$, $p > .05$).

Table 5 presents the findings on substance abuse and adult arrest. After accounting for gender, race, child welfare history, family risk, and CPC participation, youth who engaged in higher levels of civic activity during adolescence were less likely to be arrested (OR = .90, 95 % CI [.81, .99]). Civic engagement in adolescence was not significantly associated with substance use [OR = .81, 95 % CI (.94, 1.19)].

Discussion

Research has indicated that youth civic engagement is related to positive development, such as better social and emotional adjustment (e.g., Hansen et al. 2003), increased likelihood to engage in the future (e.g., Schmidt et al. 2007), greater educational achievement (e.g., Fredricks and Eccles 2010; Ludden 2011), and fewer problem behaviors (e.g., violence, substance use; Vieno et al. 2007). However, the existing literature does not provide strong evidence to the long-term impact of youth civic engagement on development. In addition, at-risk youth were not focused in previous studies, although researchers have suggested that at-risk youth might benefit most from civic engagement. Rather than investigating the impact of adolescent civic engagement on one domain, the present study examined outcomes across four domains. The extensive longitudinal design used in the Chicago Longitudinal Study also was a major strength, because data from multiple sources were used from children's birth to adulthood. Moreover, the present study is one of the few studies investigated the

Table 4 Hierarchical regression for civic engagement in adolescence predicting life satisfaction, civic engagement, and educational attainment in emerging adulthood

Predictor	Life satisfaction				Civic engagement				Educational attainment			
	β	<i>SE</i>	R^2	ΔR^2	β	<i>SE</i>	R^2	ΔR^2	β	<i>SE</i>	R^2	ΔR^2
Entry of block 1			.004				.00				.04***	
Gender	.02	.09			-.002	.07			.18***	.12		
Race	-.06	.19			-.01	.15			-.10**	.23		
Entry of block 2			.01	.01			.001	.001			.09***	.05***
Gender	.02	.09			.00	.07			.18**	.11		
Race	-.05	.19			-.01	.15			-.08*	.23		
Child welfare history	-.01	.26			.03	.20			-.002	.31		
Family risk index	-.08*	.03			-.004	.02			-.22***	.04		
Family risk (missing)	.00	.25			-.01	.09			-.01	.16		
Entry of block 3			.01	.003			.008	.007			.10***	.01
Gender	.02	.09			-.01	.07			.18***	.11		
Race	-.05	.19			-.01	.15			-.08*	.23		
Child welfare history	-.01	.25			.03	.20			.00	.31		
Family risk index	-.08*	.03			-.01	.02			-.22***	.04		
Family risk (missing)	-.001	.12			-.01	.09			-.01	.16		
CPC-preschool	.03	.10			.09*	.08			.03	.13		
CPC-follow-up	-.06	.10			-.02	.07			.06	.12		
Entry of block 4			.02	.01*			.06***	.05***			.12***	.02***
Gender	.02	.09			-.01	.07			.18***	.11		
Race	-.05	.19			-.01	.14			-.09**	.22		
Child welfare history	-.003	.24			.04	.20			.01	.30		
Family risk index	-.07	.03			.03	.02			-.20***	.03		
Family risk (missing)	.01	.12			.01	.09			.003	.15		
CPC-preschool	.03	.10			.08*	.08			.03	.13		
CPC-follow-up	-.07	.10			-.03	.07			.06	.12		
CE-A	.09*	.03			.23***	.03			.16***	.04		

Child welfare = Any child welfare case histories before participation in CPC; Family risk index = Risk index when child aged 0–3; CPC-preschool = Participation in CPC preschool; CPC-follow-up = Participation in CPC-follow-up; CE-A = Civic engagement in adolescence; * $p < .05$, ** $p < .01$, *** $p < .001$

long-term relationship between civic engagement and development. Consistent with the patterns found in previous studies, results from the present study support the notion that participation in civic activities is beneficial to youth. Racial minority young adults who participated in civic activities during adolescence are more optimistic about the future, more content with their life, obtain higher levels of education, and more likely to participate in civic activities than those who did not participate in civic activities during adolescence. In addition, they are less likely to engage in criminal activities. Civic engagement in adolescence, however, is not associated with prosocial attitudes and substance use in emerging adulthood.

Consistent with previous studies, the present study found that civic engagement in adolescence is associated with positive outcomes in multiple developmental domains. The findings support the developmental cascades theory (Masten and Cicchetti 2010). Participants who

engaged in civic activities in adolescence exhibit better academic, social-emotional, civic, and behavioral outcomes in emerging adulthood, which implies the significance of childhood and adolescence on successful development into adulthood. One finding that needs to be noted is that the associations between youth civic engagement and outcomes are of different magnitude. Adolescent civic engagement explains additional 1–5 % of variance in outcomes above and beyond the contributions of the covariates. Civic engagement in adolescence is most strongly related to civic engagement and educational attainment in emerging adulthood.

The stronger association between civic engagement in adolescence and civic engagement in emerging adulthood can be partially explained by the fact that both assessments of civic engagement measure involvement with school, church, and youth organization. This finding is consistent with previous studies on civic development. Adolescents

Table 5 Binary logistic regression for civic engagement in adolescence predicting substance use and arrest in emerging adulthood

Outcomes predictor	Model χ^2	Odds ratio	95 % CI
Substance use	7.43		
Gender		.87	0.64–1.18
Race		1.65	0.92–2.95
Child welfare history		.70	0.29–1.69
Family risk index		1.06	0.96–1.16
Family risk (missing)		1.33	0.85–2.08
CPC-preschool		1.06	0.74–1.51
CPC-follow-up		1.03	0.73–1.44
CE-A		1.06	0.94–1.19
Arrest	5.43		
Gender		.95	0.72–1.26
Race		1.18	0.67–2.07
Child Welfare history		.95	0.46–1.98
Family Risk Index		.97	0.89–1.06
Family Risk (missing)		1.01	0.68–1.52
CPC-Preschool		.87	0.63–1.20
CPC-Follow-up		.98	0.72–1.33
CE-A		.90*	0.81–.999

Child welfare = Any child welfare case histories before participation in CPC; Family risk index = Risk index when child aged 0–3; CPC-preschool = Participation in CPC preschool; CPC-Follow-up = Participation in CPC follow-up; CE-A = Civic engagement in adolescence; * $p < .05$

who participate in civic activities, such as community service, report higher levels of civic engagement when they are adults (Fredricks and Eccles 2006; Johnson et al. 1998; McFarland and Thomas 2006; Metz et al. 2003; Schmidt et al. 2007). Some studies have documented that civic engagement is associated with better academic performance among adolescents (Denault et al. 2009; Fredricks and Eccles, 2010; Schmidt et al. 2007; Ludden 2011). The present study provides evidence that civic engagement in adolescence is linked to positive gain in educational attainment later. In the present study, civic engagement in adolescence was measured by five items that involves civic knowledge and group engagement (school, religious, and school clubs). Interest in civic knowledge might imply that they are motivated, which might link to better educational achievement. Participation in activities involving school provides students with opportunities to build interpersonal competence and skills that are important to academic achievement, or facilitate their connections to school, which is linked to better educational achievement.

Taken together, the present study found that civic engagement makes a small yet meaningful contribution to long-term positive development. The statistical significance of the results should be interpreted with caution because of the relatively large sample size. However, the

practical impact of promoting educational success and preventing criminal involvement among a group of high risk adolescents is noteworthy.

Another contribution of the present study is that it investigated the long-term association between youth civic engagement and development among a group of racial minority youth who are at risk of poor developmental outcomes. On average, participants in the present study reported having four out of eight family risk indicators during childhood (such as maternal education and employment; and neighborhood risk factor such as percentage of students from low-income families in school). The findings from the present study suggest that participation in civic activities in adolescence can promote positive developmental trajectories for adolescents who are most vulnerable for negative outcomes.

Limitations

Several limitations of the present study need to be noted. First, as a secondary data analysis, the present study is limited by the availability of data. The present study only included two time points to understand the long-term relationship between civic engagement in adolescence and developmental outcomes in emerging adulthood. As such, the data do not allow for more advanced statistical analyses such as growth curve model to assess changes over time thoroughly. It is likely that the development of civic engagement and various academic, social-emotional, and behavioral outcomes take on trajectories that are non-linear. Zaff et al. (2011) found that different components of civic engagement (i.e., civic efficacy and civic duty) have different rates of growth during adolescence in a group of high school students who participated in 4-H youth development programs across the United States (4-H is a national youth organization that provides leadership training, science curriculum, and healthy life style programming to youth aged from 9 to 19). Thus, data across multiple time-points are necessary to identify potential non-linear relationships and changes in the growth of these relationships.

Second, potential confounding variables omitted in the models might have an influence on the relationships between adolescent civic engagement and outcomes. For example, self-efficacy during adolescence is found to be correlated with increased civic engagement and some positive developmental outcomes (e.g., Fredricks and Eccles 2006). Such variables were not available in the present study. Future studies should assess these variables across multiple time points and utilize panel analysis to account for the intercorrelations among these variables. Third, the measure of adolescent civic engagement also has some limitations as it does not fully assess the various

dimensions of civic engagement (Zaff et al. 2010). As conceptualized by Zaff et al. (2010), an integrated measure of civic engagement should include the following factors: civic duty, civic skills, neighborhood social connection, and civic participation. These four dimensions measure the behavioral, cognitive, and socio-emotional dimensions of civic engagement. The assessment used in the present study includes items that measure two of the four factors (i.e., civic skills and civic participation).

Finally, the present study includes a unique sample that consists of mostly low-income African American youth from Chicago (93 %). As informative as the results are from this study, the findings cannot be generalized to children and adolescents from other racial and socio-economic backgrounds living in a different geographic location. A population-specific approach to examining civic development in which the group's unique historical, social, and cultural experiences are taken into consideration is needed to further our understanding of how adolescents from diverse backgrounds develop an interest in and commitment to civic engagement and how civic engagement, in turn, influences developmental trajectories (Chan 2011).

Implications

The findings have several implications for future research and practices. First, to further understand the impact of youth civic engagement, future research should examine the antecedents to civic engagement. Consistent with the developmental cascades theory, a more comprehensive and informative developmental model would include predictors of civic engagement in childhood, civic engagement in adolescence, and outcomes in emerging adulthood and adulthood.

Second, given that the present study found a differential impact of civic engagement on development, future research should investigate whether different types of civic engagement are associated with different developmental outcomes. The measure of adolescent civic engagement in the present study does not allow for such in-depth analysis because it assesses participation in a variety of activities including discussion of civic issues, membership in religious institutions and school organizations. Although all of these activities offer adolescents opportunities to connect with others, to become aware of community issues, and to participate in collective efforts, the extent to which these opportunities are present is likely to vary across different activities. For example, adolescents who collect canned goods for their church are likely to experience connection with others and understanding of social issues differently than those who protest against discrimination on behalf of their school's Gay Straight Alliance club. In fact, previous research has found that civic activities that allow adolescents to have direct contact with those who are in need are

more likely to promote positive educational, social, and emotional outcomes than those that do not have such component (e.g., Hansen et al. 2003; Schmidt et al. 2007). A more refined assessment of civic engagement, therefore, would further our understanding of what types of civic activities might be more beneficial to certain outcomes.

Third, it is important to investigate how civic engagement is linked to multiple developmental domains. What types of competence do adolescents learn while engaging in civic activities that help them to be successful in other areas of life? One potential explanation is that participation in civic activities during adolescence might promote greater self-efficacy, which then supports better academic and behavioral outcomes. In addition to internal competencies, civic engagement may promote external resources such as connection with supportive adults and relationships with pro-social peers. An ethnographic study found differences in acquired developmental assets overtime (e.g., positive connections with adults, ability to overcome adversity and to delay gratification) in two groups of African American youth (Taylor and Almerigi 2005). Youth who participated in a community-based organization reported higher levels of developmental assets than their counterparts by year 3 of the research study. The pathways through which youth civic engagement affects development in emerging adulthood and beyond are worth exploring.

Finally, the findings from the present study suggest that participation in civic activities in adolescence can promote positive developmental trajectories for adolescents who are most vulnerable for negative outcomes. Civic engagement may have a greater impact on those with the most needs because participation increases developmental assets that are linked to positive outcomes (e.g., connection to adults and prosocial peers; Hansen et al. 2003) and those with the most needs might have less developmental assets than others. To facilitate civic engagement among youth who live in neighborhoods with limited resources, research needs to address how to engage adults and other institutions (e.g., schools, churches) to actively recruit youth to participate and more importantly to lead (Hart and Kirshner 2009). Civic activities that emphasize critical analysis of social structure and youth-led organizing to address collective needs can be particularly effective in promoting positive developmental outcomes because these activities provide a context in which youth can become agents of change and learn a variety of skills (Hart and Kirshner 2009; Watts and Flanagan 2007).

Conclusions

The present study contributes to the growing literature on the importance of youth civic engagement to successful

transitions into adulthood (e.g., Flanagan and Levine 2010) by demonstrating the long-term positive associations between civic engagement and various developmental domains (i.e., civic, social, academic, and behavioral). The wide developmental span (i.e., from adolescence to emerging adulthood) investigated in the present study provides much needed evidence to support the notion that early civic engagement is critical to later positive development (Lerner et al. 2003). As demonstrated in the present study, civic engagement can put children and adolescents who are most vulnerable to developing problem behaviors on positive developmental paths. However, recent research shows that those who have the greatest need (i.e., children and adolescents from racial minority and low-income backgrounds) have limited opportunities to participate in civic activities (Flanagan and Levine 2010). Researchers and practitioners should work to eliminate barriers to civic participation for racial minority and low-income children and adolescents. The next step is to delineate how and under what circumstances civic engagement has the greatest impact. Identifying the conditions necessary for civic engagement to be most impactful will advance the theoretical understanding of youth civic engagement and increase the effectiveness of civic engagement as a prevention strategy.

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