



Cognitive, emotional, and behavioral components of civic action: Towards an integrated measure of civic engagement [☆]

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ABSTRACT

Using data from 8th grade participants in the 4-H Study of Positive Youth Development, factor analytic procedures were used to explore a model of active, engaged citizenship, termed Civic Identity/Civic Engagement (CICE). We identified a higher order factor model in which CICE is a second-order latent variable that is comprised of several dimensions including civic duty, civic skills, and civic participation, adult social connection, peer social connection, and neighborhood social connection. Covariation was assessed between CICE scores and participation in youth development organizations, such as 4-H. Participation in 4-H was related to higher scores on five of the six factors as well as the overall CICE score. Both limitations of this study and the need for longitudinal assessments of CICE are noted and the implications of the presence of an integrated construct of civic engagement for the conduct of youth programs is discussed.

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Engaging in civic activities benefits both the individual and the context. That is, civic engagement is associated with other positive outcomes of individual development, such as educational achievement and social competencies, and with societal benefit, such as having an active citizenry that participates in democracy and contributes to the greater good (Lerner, 2004; Levine & Youniss, 2006; Zaff & Michelsen, 2001). This bidirectional relationship of the community and the individual is consistent with developmental systems theories (Lerner, 2002, 2006).

The philosophical question has been posed regarding whether the act of civic engagement or a commitment to civic engagement is paramount (see Levine, 2008). We argue that this issue should not be considered an either/or proposition. Instead, we suggest that there is a need for the development of an integrated civic construct that encapsulates the civic behaviors, civic skills, civic connections, and civic commitment of youth. We operationalize this idea as Civic Identity/Civic Engagement (CICE). Such an integrated civic engagement construct is rooted in Erikson's ego identity theory (involving a search for a sense of self that reflects a role meeting both individual and societal needs; Erikson, 1963; Marcia, 1980) and in German "action" theories (Baltes, 1987; Baltes, Lindenberger, & Staudinger, 2006; Freund & Baltes, 2002); these latter conceptions note that adaptive development involves mutually beneficial relations between the actions of the individual on the context (e.g., engagement with or contributions to the institutions of civil society) and the actions of the context (e.g., involving constraining or promoting individual behavior) on the individual (Brandstädter, 1998, 2006).

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Erikson and German action theorists posit that cognitive processes and overt (and implicit) behaviors are inherently interconnected. For instance, in action theory, behaviors are intertwined with motivations and goal-orientations toward specific tasks. This theory is not necessarily presenting a cause (motivation)/effect (task) dynamic. Instead, the cognitive, emotional, and behavioral are part of the intra-individual developmental system, pieces that are inseparable in the developmental process. Action theorists might hypothesize that civic engagement is expressed as a connection to one's community, a commitment to improving that community, and the act of helping one's community. Actions that enhance the community in this way will likely feed back to the individual, providing a context with the resources to support his/her positive development (Lerner, 2004; Lerner, Alberts, & Bobek, 2007). Consistent with these theories, Youniss (2006) has argued for a developmental theory of political–civic engagement that integrates cognitive processes with actions that take place within a collectively shared structure.

For the current study, we seek to begin an empirically based dialogue on the construction of an integrated measure of civic engagement, a measure that includes emotional, cognitive, and behavioral components. Our conception of this civic construct is one in which the individual would be an active and engaged citizen: an active individual is one who participates in civic activities; and an engaged individual is one who focuses more intensely on a civic enterprise. Note that “active and engaged” does not necessarily refer to subjective or objective success in a civic task. For instance, youth who raise awareness about and seek to improve living conditions for homeless children might not be successful in changing or enacting policies or programs. The absence of productive outcomes of action does not mean that the individual is an ineffective citizen. In fact, Theiss-Morse and Hibbing (2004) suggest that failure in civic enterprises can be a productive element of citizenship development.

Reviews of the literature regarding youth and civic engagement development (Bobek, 2005, 2007; Lerner et al., 2007; Levine, 2008; Levine & Youniss, 2006; Sherrod & Lauchardt, 2009) suggest that there are at least four interrelated constructs that may be necessary for individuals to be active and engaged citizens: 1. social cohesion, i.e., a sense of generalized reciprocity, trust, and bonding to others; 2. civic skills, i.e., the ability to be involved in civil society and democracy; 3. civic commitment or civic duty, i.e., the desire and mindset to make positive contributions to society; and 4. civic action, i.e., participation in activities for the betterment of one's community (however narrowly or broadly defined). These four factors may constitute necessary (but perhaps not sufficient) elements that need to be developed in order for a young person to develop into an active and engaged citizen. The question that we explore in this paper is whether these four constructs cohere within an underlying CICE factor.

Although the development of the above-noted four features of CICE can occur and be reinforced in multiple ecological contexts, one venue in which young people might be given the opportunity to develop these features of CICE is through participation in organized, out-of-school time (OST) activities, in general, and even more so through youth development organizations that have a mission of preparing young people to be citizens (Bobek, 2005, 2007; Lerner, 2004; Mahoney, Vandell, Simpkins, & Zarrett, 2009; Zaff, Moore, Papillo, & Williams, 2003). It may be that participation in such community-based organizations results in the acquisition of certain skills (e.g., collaborative problem solving) and social capital that transfer to forms of civic engagement (Benson, Scales, Hamilton, & Sesma, 2006; Lerner, 2004; Sherrod & Lauchardt, 2009). For instance, one national youth development organization, 4-H, has as its core a mandate to prepare the next generation of citizenry by providing opportunities for learning civic, leadership, and life skills.

Accordingly, a first goal of this research was to understand whether the four above-described components of CICE could be empirically identified. To pursue this goal, we used data from the 8th grade participants in the 4-H Study of Positive Youth Development (PYD; Gestsdottir & Lerner, 2007; Jellic, Bobek, Phelps, Lerner, & Lerner, 2007; Lerner et al., 2005), a national longitudinal study assessing the links between youth development and individual and ecological resources for positive, healthy development present in the homes, schools, and communities of youth. Second, we sought to assess whether participation in 4-H was associated with CICE more so than participation in other youth development (YD) activities (as explained in the Method section, the number of youth in the sample who did not participate in any activities was too small to include this group in the analyses). Since 4-H is an organization that has civic engagement as its mission, we expected that 4-H participants would score higher in CICE than would youth involved in other YD programs or youth not participating in any YD program.

In sum, we sought to address three questions in this research: 1. Can a measurement model of CICE be identified among a group of 8th grade youth?; 2. Is participation in 4-H more likely to be related to CICE than participation in other youth development organizations?; and 3. Assuming that opportunities should exist to maximize the development of CICE for all young people, do gender, race, and socioeconomic status moderate the relationship between youth development program activity participation and CICE?

We recognize that defining the behavioral component of CICE (and therefore the motivations and goal-orientations integrated with these behaviors) varies across and within contexts and individuals. For instance, the civic actions performed at an elite private school might be different from, but no more or less civic than the civic actions of youth living in low-income urban neighborhoods (e.g., see Ginwright, 2007, for a discussion). Thus, the current study should not be considered the end of a dialogue about constructing an integrated measure of active and engaged citizenship. Instead, this study should be considered a beginning of such a discussion.

Method

The current study is part of the larger 4-H Study of Positive Youth Development, a longitudinal investigation of youth in the United States beginning in the 5th grade and currently funded through the 12th grade (Lerner et al., 2005). The 4-H Study tests a theoretical model regarding the promotion of positive youth development as defined by the 5 Cs—competence, confidence, character, connection, and caring—and, of the emergence of a “sixth C” of contribution. More information about the research can be found in multiple

publications, including Lerner et al. (2005), Gestsdottir and Lerner (2007), Phelps et al. (2007), Theokas and Lerner (2006), and Zarrett et al. (2009). We report here only those facets of the method that are pertinent to the present research report.

Design

The 4-H Study uses a form of longitudinal sequential design (Baltes, Reese, & Nesselrode, 1977) which involves following an initial sample of participants over time while also adding “retest controls” at each time of testing, who are also followed over time. In this study, fifth graders, first sampled during the 2002–2003 school year (which was Wave 1 of the study), were the only cohort studied in Wave 1. However, to maintain at least initial levels of power for within-time analyses and to assess the affects of retesting, all subsequent waves of the study involve the addition of a retest control cohort consisting of youth of the current grade level of the initial cohort or youth of various ages involved in 4-H programs. This new cohort was then followed longitudinally.

Sample

The sample for this study consists of eighth grade participants, i.e., Wave 4 of the 4-H Study. Data were collected from a total of 1890 adolescents, which included 4-H participants. Of this group, 1072 had previously participated in at least one prior wave and 818 were new to the study. Youth from 35 schools and nine 4-H sites located in 24 states, participated in Wave 4, thus providing regional, rural–urban, racial/ethnic, and religious diversity.

Attrition in the 4-H Study sample is not randomly distributed across schools. For instance, in Wave 2, some principals withdrew consent for their schools to participate, and thus these students “dropped out” without our having the opportunity to ask them if they wanted to remain in the study. In one state we were unable to collect data in Wave 2, resulting in the loss of over 250 participants. Overall, we lost 561 out of 1722 participants in Wave 2 because of the absence of principal or superintendent permission to continue. However, attrition from Wave 1 to Wave 2 for students who we had permission to ask to remain in the study was only 10%. Compared with Wave 1 youth who did not continue into Wave 2, those who did were slightly more advantaged as indexed by household income and birth mother education, and were more likely to be European American. There was no significant difference in household income or birth mother education when comparing Wave 2 youth who continued into Wave 3, or Wave 3 youth who continued into Wave 4, with those who dropped out. However, Wave 2 youth who continued into Wave 3 were more likely to be European American, and Wave 3 youth who continued into Wave 4 were more likely to be Asian and less likely to be Latino/a American.

Of the 1890 participants in Wave 4, 1100 were in the eighth grade at the time of testing and comprised the sample for this study. This sample came from 33 schools and eight 4-H sites located in 16 states. Participants varied in race, religion, socioeconomic status, and geographic region. Of the 1100 students, 945 had participated in at least one prior wave. Table 1 summarizes the demographic characteristics of the sample.

Table 1
Demographic characteristics of 1100 8th grade study participants.

	%
Sex	
Male	39.7
Female	60.3
Race/ethnicity (as reported by student)	
European American	68.7
African American	9.1
Latino or Latina	13.1
Other	9.0
Religion	
None	15.4
Protestant	31.8
Catholic	37.4
Jewish	0.7
Other	14.8
Geographic region	
Northeastern (MA, NJ, NY)	19.5
North Central (IL, KS, MN, WI)	22.9
Southern (FL, KY, NC, SC, TN)	27.7
Western (AZ, TX, WA, MT)	28.9
Household income (per capita)	
\$0–\$5000	11.4
\$5001–\$10,000	16.9
\$10,001–\$15,000	13.2
\$15,001–\$20,000	11.6
\$20,001–\$25,000	9.3
\$25,001 and above	7.6
Not available	30.0

Procedure

At all waves of data collection, teachers or program staff gave each youth an envelope to take home to a parent or guardian, containing a letter explaining the study, consent form, a parent questionnaire, and a self-addressed envelope for returning the parent questionnaire and consent form. For those youth who received parental consent, data collection was conducted either in the school or program by trained study staff or assistants. The procedure began with reading the instructions for a student questionnaire (SQ) to the youth. Participants were instructed that they could skip any questions they did not wish to answer. Data collection took approximately 2 h, which included one or two short breaks. During Waves 2 to 4, students who were unable to be surveyed at their school or 4-H site, in that they were either absent during the day of testing or the school superintendent did not allow testing to occur in the school, received a survey in the mail or completed an on-line version of the questionnaire. At each wave of the study, information is also collected from parents through the use of a Parent Questionnaire (PQ) that was delivered to the home.

Measures

To identify a set of items within the 4-H Study data set that could be used to operationalize each of the four key CICE development constructs of interest in the present research (that is, civic knowledge and skills, civic attitudes, civic engagement, and social capital/social trust), a three-step expert rater validation process was conducted. First, as described below, current or past graduate-level researchers involved in the 4-H Study rated the item set in regard to whether items reflected any of the four key constructs. Second, after these ratings were complete, the 4-H item list was reviewed by the authors to identify additional items that, while not among those empirically identified by the 4-H Study researchers, were deemed theoretically relevant to the four constructs. Third, in anticipation of establishing convergent and discriminant validation of the four constructs through the expert ratings, a sample of items was generated by the authors that were neither empirically linked to the four constructs by the 4-H Study researchers nor judged to be theoretically associated with them. These were distractor items.

With regards to Step 1, nine former or current graduate-level raters (100% female) examined all Wave 4 SQ items (see Lerner et al., 2005, for complete details about the SQ) and selected items relevant to any of the four constructs of interest, based on the following definitions of these constructs: 1. social trust and social capital, or the ability of a group of people to come together to form bonds for mutual interests; 2. civic knowledge and skills, or the ability and expertise to be involved in civil society and democracy; 3. pro-civic attitudes, or the desire and mindset to get involved with others to make positive contributions to society; and 4. civic engagement, or opportunities for collective action. Although these raters were familiar with the 4-H Study, they were not necessarily expert in CICE development. As such, a 67% agreement level was used for indicating if an item was relevant to one of these four definitions (i.e., at least six of the nine raters had to agree that an item was pertinent to any one of the four constructs; they did not have to agree on the particular construct). There were 54 items that were identified for further use.¹ Because the items in this set have different response scales, for further analysis all items were re-scaled and set to vary from 0 to 25. Accordingly, in subsequent analyses, computation of factor scores comprising these items also had a range of 0–25.

With regards to Step 2, these 54 items were supplemented by 27 additional items that were considered by the authors to be theoretically relevant to one of the four definitions. All of these items had been selected by at least one of the graduate-level raters, with some items being selected by up to 4 of the raters (a table presenting these 27 items is available upon request.¹). To this point then, there were 81 items that could potentially be relevant in measuring any of the four factors of CICE – 54 that were identified by the expert raters and 27 that were identified by the present authors.

Finally, Step 3, undertaken to establish both convergent and discriminant validity involved the addition of 15 items. These items were not associated by any of the 4-H Study raters with the four constructs nor judged by the present authors as theoretically relevant to any of the four constructs. Added, therefore, as “control” or “distractor” items, expert raters should not identify these items as operationally associated with any one of the four key constructs.

The final list of 96 items was then sent to 21 raters with more expertise in the field of civic engagement and civic identity. These “expert raters” (i.e., active researchers in this field of work or practitioners leading national organizations aimed at promoting youth civic engagement) were given definitions of the four constructs of interest and asked to place each item into one of the four categories, or else to select N/A (not applicable), meaning that the item was not related to any of the four categories. The four definitions presented to the expert raters were: 1. social trust and social capital, or a sense of generalized reciprocity, trust, and bonding to others; 2. civic knowledge and skills, or the ability and expertise to be involved in civil society and democracy; 3. pro-civic attitudes, or the desire and mindset to get involved with others to make positive contributions to society; and 4. civic engagement, or participation in activities for the betterment of one's community (however narrowly or broadly defined).

The definitions for social capital/social trust and for civic engagement given to the expert raters varied slightly from those given to the graduate-level raters, in order to refine and refocus the definition to the individual level, since the 4-H Study measurement items are individually based. Convergent and discriminant validation would be established, respectively, to the extent that first, the 81 empirically and theoretically identified items (derived from Steps 1 and 2, respectively) were placed into one of these four categories and, second, that the 15 distractor items were not placed into any of the substantive categories.

¹ This table may be obtained from Richard M. Lerner at the Institute for Applied Research in Youth Development, 301 Lincoln Filene Building, Tufts University, Medford, MA 02155 or by writing richard.lerner@tufts.edu.

In order to balance the need to have a sufficient number of responses with time constraints, responses from the first 10 expert raters were used to develop the final list of items for each category. The final group of expert raters consisted of five men and five women. Thirty of the 54 items (56%) identified by the graduate-level raters were placed into one of the four categories with at least 80% agreement by the expert raters, and 18 of the 27 items (67%) deemed as theoretically relevant by the authors were categorized by the expert raters into one of the four categories with at least 80% agreement. In addition, the presence of discriminant validity for the items set was supported as a consequence of the finding that none of the 15 “distractor” items were rated as substantively relevant by the 80% criterion.

Overall, the expert raters identified 48 substantive items based on the 80% criteria. These items are shown in Table 2 (which indicates that 16 items related to social capital/social trust, 12 to positive civic attitudes, 11 to civic knowledge/civic skills, and 9 to the civic engagement).

In addition to the items potentially related to CICE, other information from the SQ was used. That is, information regarding gender, race/ethnicity, and Grade 8 youth development program participation was derived from SQ responses. Gender was coded 1 for females and 0 for males. Dummy variables were created for race/ethnicity, with separate variables encoding European American, African American, Latino/a American, or “other participants.” Participation in 4-H was dichotomized such that 1 indicated any participation in 4-H during 8th grade and 0 indicated no 4-H participation. Participation in other youth development activities was similarly coded: 1 indicated participation in a non-4-H youth development program during 8th grade and 0 indicated no participation. Information regarding income gathered from the PQ was calculated on a per capita basis by family. Although only Grade 8 data are used to study CICE, for those youth in the sample who were present in earlier waves of testing (Grades 5–7), income was averaged across times of testing to obtain income data for Grade 8.

Results

There were several purposes of this study. First, using data derived from eighth grade participants in the 4-H Study of Positive Youth Development, a four factor model of CICE was explored based on items identified through an expert rater process. Second, the resulting structure of items was used to test whether participation in 4-H versus participation in other youth development organizations would covary with different patterns of CICE. Consistent with previous findings that young people in the 4-H Study tend to be involved in about three structured OST activities (Balsano, Phelps, Theokas, Lerner, & Lerner, 2009; Zarrett et al., 2009), the number of youth not participating in any activities was too low to include in this analysis. Third, an assessment was made of whether gender, race, or household income covaried with CICE among this group of eighth graders.

Factor analyses of the hypothesized factor structure

Prior to computing a confirmatory factor analysis, items that were heavily skewed were transformed in order to attempt to normalize their distribution. Of the 11 items thought to represent civic skills, three variables originally on a four-point scale were trichotomized and one was dichotomized. Of the 12 items thought to represent positive civic attitudes, four items on a five-point scale were trichotomized and one was dichotomized. Of the 16 items thought to represent social connection, five items on a five-point scale were dichotomized. Of the nine items thought to represent civic participation, four items on a six point scale were dichotomized and one item on a five-point scale was dichotomized. These transformed variables were used in subsequent analyses.

A confirmatory factor analysis was conducted to examine whether the 48 indicator items identified by the expert raters corresponded to the hypothesized four factors. This hypothesized model was estimated using LISREL 8.80 maximum likelihood factor analysis (Jöreskog & Sörbom, 2003). The hypothesized four factor CICE model was evaluated to determine whether the 48 indicators adequately represented the four latent constructs (i.e., positive civic attitudes, civic engagement, social capital and social trust, and civic knowledge and skills). Because the chi-square test is too powerful (resulting in a significant outcome for large samples even when the model fits well), model fit was estimated using the Root Mean Square Error of Approximation (RMSEA). Critical values for the RMSEA are less than .08 (Meyers, Gamst, & Guarino, 2006). This model did not provide an adequate fit for the data, $\chi^2 = 2611.33$, $df = 1080$, $p < .01$; $RMSEA = .085$.

Accordingly, in order to explore whether a better factor fit was possible, exploratory factor analysis was undertaken using the 48 items. To conduct this analysis, a randomly selected sample of approximately 50% of the cases was used. The results of this exploratory factor analysis were then subjected to a confirmatory factor analysis using the remaining 50% of the cases.

A principal axis factor analysis using Varimax rotation and no limit to the number of factors was conducted with this first half of the participants. The factor analysis revealed 10 factors with Eigenvalues greater than one. These 10 factors accounted for 62% of the total variance. With the exception of the sixth factor, all of the items within the factors clustered within one of the four theoretically determined categories (i.e., positive civic attitudes, civic engagement, social capital and social trust, and civic knowledge and skills). The sixth factor contained four items thought to represent civic participation and one item thought to represent positive civic attitudes.

Reviewing the results of this exploratory factor analysis indicated that the ninth and tenth factors accounted for only 4.6% of the variance and the ninth factor contained only two items, while the tenth factor contained only one item. Although these two factors had Eigenvalues greater than one, this rule is only considered a guideline, and given the exploratory nature of the principal axis factor analysis, theory should also help drive decisions on the best number of factors (Meyers et al., 2006). Therefore, a second

Table 2Summary of items and factor loadings from principal axes factoring analysis with Varimax rotation for 48 items and criteria of eight factors ($N = 547$).

Original scale	Item name	Component							
		1	2	3	4	5	6	7	8
PCA	[How important is] helping to reduce hunger and poverty in the world?	0.77	0.04	0.08	0.12	0.14	0.03	-0.02	0.18
PCA	[How important is] helping to make the world a better place to live in?	0.72	0.09	0.13	0.20	0.07	0.00	0.02	0.20
PCA	[How important is] helping to make sure all people are treated fairly?	0.72	0.12	0.03	0.21	0.04	0.11	0.09	0.03
PCA	[How important is] helping other people?	0.66	0.06	0.10	0.22	0.08	0.16	0.16	0.10
PCA	[How important is] speaking up for equality (everyone should have the same rights and opportunities)?	0.61	0.17	0.09	0.16	0.07	0.13	0.09	-0.13
PCA	I believe I can make a difference in my community.	0.51	0.31	0.34	0.03	0.07	0.13	0.01	0.27
PCA	It's not really my problem if my neighbors are in trouble and need help.	0.47	0.05	0.20	0.05	0.00	0.05	0.09	0.15
PCA	It is important for me to contribute to my community and society.	0.45	0.11	0.30	0.12	-0.03	0.09	0.01	0.45
PCA	When I see someone being taken advantage of, I want to help them.	0.43	0.11	0.15	0.23	0.02	0.26	0.12	-0.05
PCA	I often think about doing things so that people in the future can have things better.	0.41	0.13	0.24	0.04	0.05	0.11	0.05	0.29
CE	[How often do you] help out at your school?	0.38	0.22	0.29	0.12	0.18	0.30	0.08	0.26
PCA	When I see someone being treated unfairly, I don't feel sorry for them.	0.35	0.08	0.09	0.18	-0.02	0.17	0.09	-0.10
PCA	I feel sorry for other people who don't have what I have.	0.34	0.03	0.19	0.12	-0.05	0.21	0.11	-0.13
SCT	[How often do you feel afraid of] walking around your neighborhood?	-0.14	0.07	0.06	-0.02	-0.08	-0.09	-0.05	-0.06
CKS	[What is your ability to] contact a newspaper, radio, or TV talk show to express your opinion on an issue?	0.08	0.84	0.13	-0.04	0.09	0.12	0.13	0.02
CKS	[What is your ability to] contact or visit someone in government who represents your community?	0.12	0.83	0.17	0.07	0.12	0.08	0.06	0.14
CKS	[What is your ability to] contact an elected official about the problem?	0.10	0.82	0.14	0.01	0.07	0.06	0.08	0.13
CKS	[What is your ability to] write an opinion letter to a local newspaper?	0.14	0.74	0.19	0.11	0.11	0.08	0.14	0.03
CKS	[What is your ability to] sign an e-mail or written petition?	0.14	0.65	0.19	0.06	0.08	0.12	0.09	-0.05
CKS	[What is your ability to] express your views in front of a group of people?	0.06	0.64	0.12	0.04	0.05	0.14	0.12	0.03
SCT	Adults in my town or city make me feel important.	0.12	0.16	0.85	0.04	0.06	0.10	0.13	0.09
SCT	Adults in my town or city listen to what I have to say.	0.10	0.15	0.84	0.07	0.13	-0.02	0.06	0.09
SCT	In my town or city, I feel like I matter to people.	0.12	0.22	0.82	0.10	0.01	0.09	0.08	0.12
SCT	In my neighborhood, there are lots of people who care about me.	0.14	0.17	0.71	0.10	0.07	0.03	0.13	0.11
SCT	If one of my neighbors saw me do something wrong, he or she would tell one of my parents.	0.26	0.13	0.39	0.06	0.01	-0.02	0.04	0.00
SCT	My teachers really care about me.	0.22	0.13	0.37	0.24	0.00	0.06	0.12	0.05
SCT	My friends are there when I need them.	0.14	0.03	0.04	0.88	-0.02	0.04	0.01	0.09
SCT	I feel that my friends are good friends.	0.16	-0.01	0.06	0.84	0.03	-0.05	-0.02	0.04
SCT	My friends care about me.	0.22	0.02	0.07	0.84	0.04	0.10	0.07	0.08
SCT	I trust my friends.	0.18	0.06	0.14	0.70	-0.02	0.04	0.07	0.01
SCT	Students in my school care about me.	0.24	0.13	0.30	0.39	0.02	0.20	0.24	-0.13
SCT	[What are your chances in the future for] having friends you can count on?	0.20	0.05	0.06	0.37	0.02	0.07	0.13	0.06
CKS	In a typical week, how often do you watch national TV news or cable shows (such as CNN) for information on politics and current events?	0.03	0.03	0.06	0.05	0.78	0.09	0.04	0.01
CKS	In a typical week, how often do you listen to news about politics and current events on the radio?	0.05	0.12	0.07	0.02	0.71	0.03	0.05	0.04
CKS	In a typical week, how often do you watch the local news on TV for information on politics and current events?	0.04	0.05	0.04	0.01	0.67	0.03	-0.02	0.11
CKS	In a typical week, how often do you read a newspaper for information on politics and current events?	0.10	0.06	0.04	0.00	0.66	0.18	0.04	0.02
CKS	In a typical week, how often do you read news on the Internet about politics and current events?	0.04	0.12	0.02	-0.03	0.53	0.09	0.05	-0.04
CE	[How often do you spend time] mentoring/peer advising?	0.09	0.06	0.07	0.12	0.00	0.66	0.03	0.07
CE	[How often do you spend time] volunteering your time?	0.16	0.11	0.21	-0.06	0.06	0.52	0.15	0.18
CE	During the last 12 months, how many times have you been a leader in a group or organization?	0.01	0.20	-0.03	0.06	0.18	0.49	0.04	0.12
CE	[How often do you spend time] tutoring others?	0.11	0.03	0.02	-0.02	0.08	0.48	-0.02	0.02
CE	[How often do you] participate in school government?	0.11	0.08	-0.03	0.05	0.08	0.30	0.00	-0.04
SCT	Not including your parents or teachers, how many adults have you known for one or more years who you look forward to spending time with?	0.16	0.19	0.17	0.10	0.03	0.05	0.78	0.11
SCT	Not including your parents or teachers, how many adults have you known for one or more years who give you lots of encouragement whenever they see you?	0.15	0.22	0.22	0.08	0.07	0.08	0.77	0.15
SCT	Other than your parents, is there at least one other adult you would feel able to talk to if you were having problems in your life?	0.15	0.20	0.07	0.15	0.11	0.05	0.42	-0.08
CE	[How often do you] help make your city or town a better place for people to live?	0.33	0.17	0.26	0.14	0.20	0.28	0.09	0.45
CE	[How often do you] help a neighbor?	0.22	0.14	0.27	0.22	0.16	0.12	0.10	0.42
CE	[How often do you] help out at your church, synagogue, or other place of worship?	0.20	0.09	0.22	0.08	0.01	0.31	0.12	0.39
	Eigenvalues	11.69	3.81	2.83	2.45	2.22	1.79	1.55	1.31
	Variance explained (%)	24.34	7.93	5.89	5.09	4.63	3.74	3.21	2.73

Notes. Boldface indicates highest factor loadings. Bold italics indicate second highest factor loading for item that was moved to a different factor based on theory. Original scale abbreviations are PCA = Positive Civic Attitudes; CE = Civic Engagement; CKS = Civic Knowledge and Skills; SCT = Social Capital/Social Trust.

principal axis factor analysis using Varimax rotation was conducted in order to limit the number of factors to eight. The results of this analysis are presented in Table 2, along with item name, original scale, and component scores.

The results of this factor analysis provided a more theoretically satisfactory result, and accounted for 58% of the total variance. Only one item loaded with a factor that did not contain items from the same original theorized scales. That is, the item “How often do you help out at your school” had a factor loading of .38 with Factor 1, which was comprised of items from the original positive civic attitudes scale. However, this item had a factor loading of .30 with Factor 6 which contained theoretically similar items representing civic participation. Accordingly, this item was associated with Factor 6 for the subsequent analyses. In addition, given that the items loading on Factor 8 were theoretically similar to Factor 6 and that one of the items, “How often do you help out at your church, synagogue, or other place of worship” loaded on Factor 6 and another, “How often do you help make your city or town a better place for people to live” loaded within a reasonable range to Factor 6 (i.e., .28), Factors 6 and 8 were combined into a single factor for parsimony. Since the items for Factor 5 represented a theoretically underlying construct of civic information which, according to our theory and the extant research on civic engagement (e.g., Lopez et al., 2006), does not predict civic participation, we decided to drop this factor from further analysis. Finally, the item “How often do you feel afraid of walking around your neighborhood?” did not sufficiently load with any of the factors and therefore was dropped from the remaining analyses.

The remaining 42 items and six factors were given theoretically relevant names. Factor 1, which contained 12 items was related to Civic Duty. Factor 2, which contained six items, was related to Civic Skills. Factor 3, which contained six items, was related to Neighborhood Social Connection. Factor 4, which contained six items was related to Peer Social Connection. Factor 5, which contained nine items, was related to Civic Participation. Factor 6, which contained three items was related to Adult Social Connection.

The structural integrity of these six factors was then tested through the use of confirmatory factor analysis using maximum likelihood methods computed through LISREL 8.52 (Jöreskog & Sörbom, 2003). Data from the remaining approximately 50% of the randomly selected participants were analyzed. Missing data only constituted 4.6% of the variables and we therefore chose not to impute data. The model tested whether the 42 items loaded onto six first-order latent factors as derived from the exploratory factor analysis and whether these six factors could be combined into a second-order latent factor of CICE. Although the χ^2 value for the second-order model is statistically significant, the goodness-of-fit indexes indicated a good fit ($\chi^2 = 2237.72$, $df = 813$, $p < .01$; $RMSEA = 0.056$). Therefore, we concluded that the proposed factorial structure is consistent with the data. Inspection of the modification indices indicated that model fit could be further improved by correlating a few pairs of residuals. Following these modifications, the new model provided better model fit, ($\chi^2 = 1786.66$, $df = 803$, $p < .01$; $RMSEA = .047$). We thus retained this model as our final factor model.

Fig. 1 presents the factor model with the standardized maximum likelihood estimates. The results of these analyses demonstrated that 47 of the original 48 items thought to relate to CICE were in fact related to this construct and that, in the end, 42 of the items were theoretically meaningful and comprised six empirically defensible factors.

Regression analyses

Reliability estimates (using Cronbach's alpha) for each of the six factors ranged from very good (.73 for Civic Participation, 9 items) to high (.91 for Civic Skills, 6 items). The Cronbach's alphas for the remaining four factors were .86 (Neighborhood Social Connection, 6 items), .84 (Peer Social Connection, 6 items), .80 (Civic Duty, 12 items), and .71 (Adult Social Connection, 3 items). The alpha for CICE was .75 (across the six factor scores). Scores for each of the six factors were calculated by taking the mean of the items making up each factor. In turn, an overall CICE score was computed by determining the mean of these means. Cases with no income information were excluded from these analyses resulting in an N of 770.

Table 3 presents the means and standard deviations for the six factors and the overall CICE. Independent samples t -tests and ANOVAs were conducted to test for differences based on demographic variables. Girls had significantly higher scores for each of the six factors and overall CICE. European American youth scored higher than Latino/a youth on Civic Participation, Peer Social Connection, and Adult Social Connection, but they did not score significantly higher than African American youth on any of the factors or overall CICE. There were no significant differences based on per capita household income.

Multiple regressions were conducted with each of the six individual factor scores and, separately, with the second-order CICE score as the dependent variables to determine whether participation in 4-H or other youth development programs would contribute to the prediction of the civic factors or the overall CICE score. Gender, race, and socioeconomic status were included in these analyses to assess their contribution to the scores. The interactions between gender and race and gender and 4-H participation were also assessed, but these terms were not significant for any of the dependent variables. Thus, these results are not reported. Regression results are summarized in Table 4 for each of the six factors and for the CICE score.

As shown in Table 4, the regression models accounted for significant proportions of variance for all six factors and for the overall CICE score. Participation in 4-H significantly predicted the outcome variable for five of the six factors and for CICE overall. For Neighborhood Social Connection, Civic Participation, Adult Social Connection, and overall CICE, both participation in 4-H and participation in other youth development organizations significantly predicted the outcome variable. For Civic Duty, Civic Voice, and Peer Social Connection—participation in other youth development programs did not predict the outcome variable, indicating that 4-H covaries with Civic Duty and Civic Skills in this sample, while participation in other youth development programs does not reflect this covariation.

Consistent with the data from Table 3, Gender was a significant predictor for all of the factors and also for CICE overall, indicating that females scored higher on all of the significant outcome variables, including CICE. Race/ethnicity was a significant

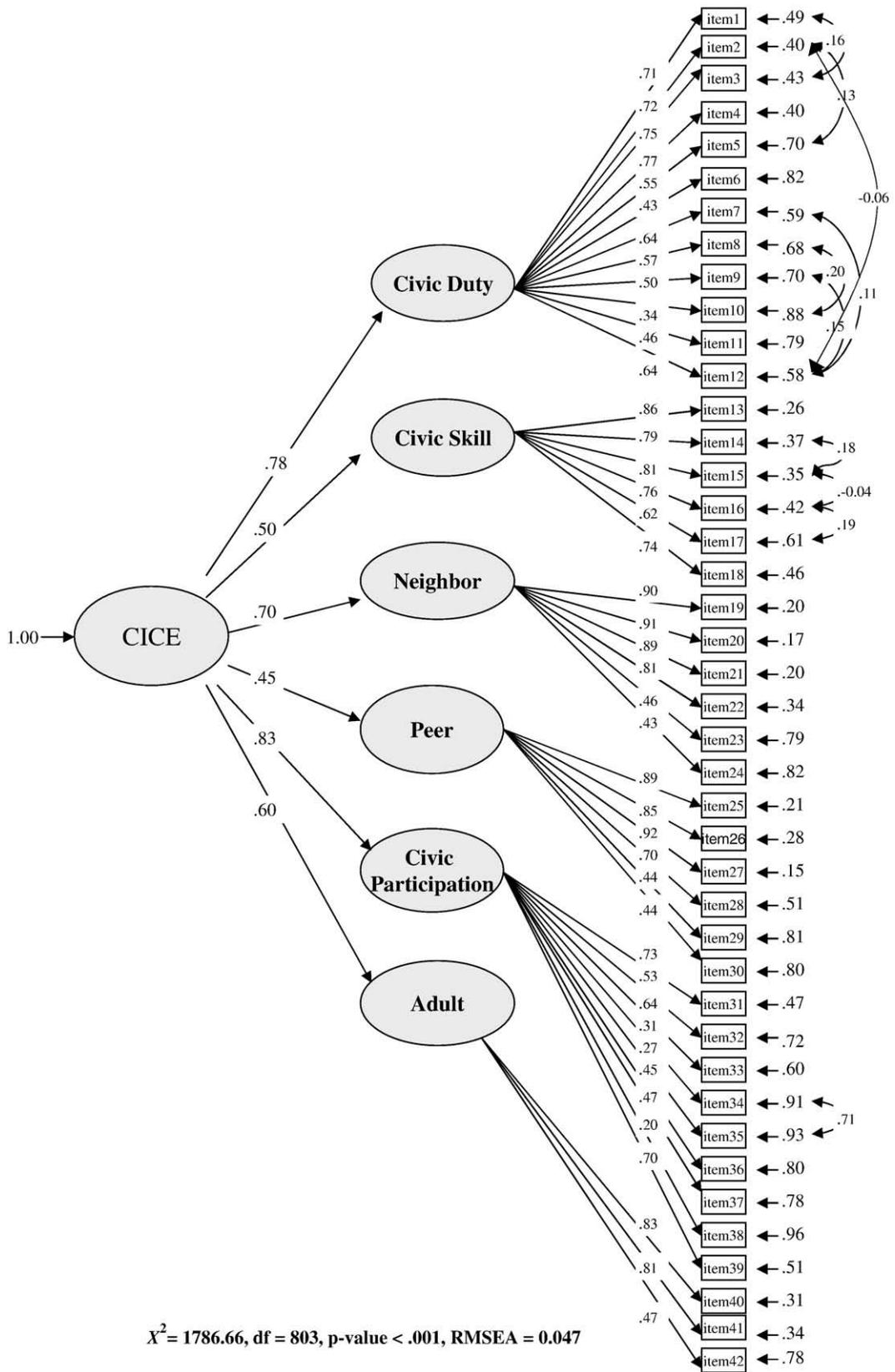


Fig. 1. Final factor model for Civic Identity/Civic Engagement (CICE) with standardized maximum likelihood estimates. All estimates are significant at the .05 level.

Table 3

Means (SDs) and univariate ANOVA results, with CICE and the six factors as outcomes and gender, racial/ethnic and household income groups as the predictor variables.

Variables	Overall	Gender		Race/ethnicity				Household income (per capita)					
	Mean (SD)	Girls	Boys	European American	African American	Latino/a	Other	\$0–5000	\$5001–10,000	\$10,001–15,000	\$15,001–20,000	\$20,001–25,000	Above \$25,000
CICE	13.15 (4.13)	14.00*** (3.92)	11.90 (4.11)	13.65 ^{ab} (3.97)	13.24 (3.99)	11.81 ^a (3.95)	11.93 ^b (4.61)	13.51 (4.23)	13.26 (4.12)	13.04 (3.99)	12.67 (3.89)	13.84 (4.16)	13.24 (3.95)
Civic participation	8.12 (4.88)	8.70** (5.02)	7.25 (4.56)	8.45 ^a (4.91)	9.93 ^{b,c} (5.05)	6.44 ^{ab} (4.24)	7.12 ^c (4.65)	7.85 (4.30)	8.17 (4.93)	8.16 (5.10)	7.82 (4.66)	8.96 (5.52)	8.26 (4.77)
Civic duty	14.73 (5.12)	15.82*** (5.05)	13.06 (4.99)	14.89 (5.12)	15.85 (4.75)	13.86 (4.98)	14.14 (5.39)	14.78 (5.38)	14.93 (5.26)	14.89 (4.80)	14.14 (5.31)	15.21 (4.41)	14.58 (5.41)
Civic skills	12.86 (6.28)	13.24** (6.01)	12.11 (6.48)	13.33 (6.09)	13.87 (6.25)	11.41 (6.12)	11.44 (6.97)	12.95 (6.08)	12.89 (6.39)	11.82 (5.37)	12.83 (5.98)	14.68 (6.04)	13.31 (6.96)
Peer social connection	13.18 (8.03)	14.87** (7.99)	10.61 (7.26)	13.96 ^a (7.98)	10.97 (7.63)	11.16 ^a (8.01)	12.42 (8.00)	13.80 (8.21)	13.57 (8.09)	13.56 (7.95)	11.53 (7.91)	14.24 (7.75)	12.52 (7.54)
Adult social connection	15.96 (6.33)	16.48*** (6.12)	15.18 (6.48)	16.65 ^{ab} (5.99)	14.96 (6.95)	14.67 ^a (6.05)	14.23 ^b (7.39)	16.87 (6.33)	16.11 (6.29)	15.86 (6.32)	15.33 (6.18)	15.94 (5.85)	16.19 (6.57)
Neighborhood social connection	14.23 (4.97)	14.63*** (4.90)	13.62 (5.00)	14.73 ^a (4.80)	13.88 (5.12)	13.31 (4.54)	12.75 ^a (5.73)	14.66 (5.24)	14.30 (4.84)	14.80 (4.72)	13.24 (5.13)	14.71 (4.68)	14.87 (4.67)

Note. Independent samples *t*-tests were conducted for CICE and the six factors comparisons between boys and girls. ANOVAs for race/ethnicity and household income categories (means with the same superscript are significantly different at the .05 level).

p*<.05. *p*<.01. ****p*<.001.

Table 4

Summary of unstandardized coefficients, R^2 and degrees of freedom for predicting six civic identity/civic engagement (CICE) factors and overall CICE based on 4-H or other youth development participation ($N = 770$).

	Civic duty	Civic voice	Neighborhood	Peer	Civic activity	Adult	CICE
Constant	12.88***	11.82***	13.96***	12.27***	5.11***	16.31***	10.49***
4-H participation	1.39***	1.69**	1.58**	−0.47	2.24***	1.35*	1.26***
YD participation	0.75	0.76	0.93*	−0.03	1.98***	1.72**	1.01**
Gender	2.80***	1.16**	0.98**	4.21***	1.30***	1.38**	1.97***
African American	−0.74	−1.74*	−1.20*	−2.37**	−1.87***	−1.76*	−1.58***
Latino/a	0.54	0.30	−1.09	−3.65***	1.12	−2.12*	−0.76
Other	−0.81	−1.90**	−2.00***	−1.57	−1.37**	−2.49***	−1.76***
Household income	−0.00	0.00	−0.00	−0.01	0.02	−0.01	0.00
R^2	.094***	.040***	.050***	.088***	.099***	.055***	.110***
df (residual)	751	718	705	708	740	716	743

Notes. The interactions between gender and 4-H participation and race and SES were tested but not significant for any of the dependent variables.

* $p < .05$. ** $p < .01$. *** $p < .001$.

predictor for five of the six factors and for CICE overall. For Civic Skills, Civic Participation, and neighborhood, adult, and peer connection, and CICE overall, being African American predicted lower scores on the outcome variables than being European American. Latino/a youth scored significantly lower than European American youth on Peer Connection, Adult Connection, and overall CICE. There were no differences by race/ethnicity for Civic Duty. Income did not significantly predict any of the factors or the overall CICE score indicating that, for this sample, per capita household income did not predict the scores on the factors of CICE, when holding the other variables in the model constant. Finally, although gender was a significant predictor for all CICE factors and for CICE, as noted, interactions between gender and 4-H participation were not significant.

Discussion

This study sought to begin an empirically based discussion about an integrated civic engagement construct by answering the following questions: 1. Could a four factor model of CICE be identified among a group of 8th grade youth?; 2. Is participation in 4-H more likely to be related to CICE than is participation in other youth development organizations?; and 3. Do gender, race, and socioeconomic status moderate the relationship between activity participation and CICE development?

With regards to the first question, a four-component model of CICE was not supported by the analyses in this study. Instead, eight factors were identified and then, based on theory, reduced to six factors: Civic Duty, Civic Skills, Neighborhood Social Connection, Peer Social Connection, Adult Social Connection, and Civic Participation. We believe that the final empirical model of six factors offers a more nuanced understanding of CICE among this sample than provided in the initially hypothesized four factor model. In addition, the confirmatory factor analysis supported the existence of a second-order factor of CICE, comprised of the six first-order factors. CICE appears to integrate cognitive (skills), emotional (connection and duty), and behavioral (participation) aspects of civic engagement. This analysis provides useful baseline data regarding the measurement of CICE factors and CICE overall, and may provide a starting point to others interested in assessing an integrated civic engagement construct that assesses active and engaged citizenry.

Given that this research is a first step in developing an integrated construct of civic engagement, we note that the 4-H Study was not originally designed for the purpose of making such an assessment. Thus, there are three limitations to the first question that suggest next steps for measurement model refinement. First, we inevitably do not have all of the necessary measures to support our theoretical constructs. The adult and peer social connection measures, for instance, could be strengthened by including additional measures that more directly assess trust and cohesion. Second, the civic participation measures are focused solely on service to the proximal community, such as volunteering for various institutions and helping individuals. The concept of civic engagement stretches beyond the proximal community to include broader social and political spheres. This second limitation is related to a third limitation. We recognize that the construction of the scales was based on the “expert ratings” of a non-representative group of raters. If, for example, a group of youth from a low-income urban community rated the questions, they might have different opinions about the relevance of the items. Thus, future research on the idea of an integrated civic construct should include: More specific measures to tap the six factors of CICE; a broader array of measures that assess political engagement; and the perspectives of a diverse group of researchers and youth in constructing the scales.

In addition, to precisely understand whether CICE is a valid measure of active and engaged citizenry among adolescents, we would need to know whether the factor structure holds at different ages. Ideally, longitudinal research would be used to address this issue. As such, future analyses of the 4-H Study data set will be useful here. In addition, we would want to know the trajectories of CICE to gain an understanding of the development of becoming an active and engaged citizen and the factors that influence this development. However, two other analyses support CICE as a model for active and engaged citizenry. The Cronbach’s alphas were all sufficiently high and the mean score of CICE (13.2, range = 0–25) suggests that the measure maybe tapping a developmental process that, we theorize, should continue and strengthen throughout adolescence and into adulthood.

In regard to the second question we addressed, the results of the regression analyses demonstrated that 4-H participation predicted five of the six CICE factors and overall CICE, even when holding race, gender, and socioeconomic status constant. For

three of the factors of CICE—Civic Duty, Civic Voice, and Peer Social Connection—participation in 4-H significantly predicted the outcome variables, while participation in other youth development organizations did not. Thus, for these three civic outcomes, participation in 4-H made a statistically significant difference in comparison to other youth development organizations.

A possible explanation for the particular covariation of 4-H participation on Civic Duty, Civic Voice, and Peer Social Connection is the emphasis that 4-H places on participatory democracy within the club settings, on giving young people a voice in the day-to-day operation of their program, and on inculcating a sense of civic duty within their participants. That is, as demonstrated by a process evaluation (Bobek, 2006), 4-H places particular emphasis on empowering youth to have a voice in their clubs and, as well, tries to instill a sense of civic pride and obligation throughout all of their activities. This focus on civic duty is even reflected in the 4-H pledge: “I pledge my Head to clearer thinking, my Heart to greater loyalty, my Hands to larger service, and my Health to better living, for my club, my community, my country, and my world.”

In regard to the third question we addressed, females scored significantly higher on all the significant indicators of CICE and on the second-order CICE score as well. This finding is consistent with previous research that has demonstrated that females are generally more civically engaged, more civically informed, and have greater social capital than do males at this age (Baldi et al., 2001; Covitt, 2002; Kleiner & Chapman, 2000). What is most interesting is that for none of the models was the interaction between 4-H participation and gender significant. Therefore, for those factors for which participation in 4-H is a significant predictor, participation in 4-H significantly predicts higher scores on the factors regardless of gender. That is, 4-H is significantly predicting those outcomes for both males and females, and thus may be helping to close the gap between males and females on indicators of civic identity and civic engagement. For example, in general, females have higher rates of civic engagement and better attitudes toward service than males (Covitt, 2002; Kleiner & Chapman, 2000) but, for the participants in this study, the scores on the factors of CICE for which 4-H participation is a significant predictor, there was no difference between males and females. These results stand in contrast to previous research that has been done on the interaction between gender and 4-H participation on contribution (e.g., Phelps et al., 2007). However, previous research used a measure of contribution that focused on contributions to self, family, and school or community settings and did not explore in depth civic contributions, nor any of the six factors related to CICE. These measurement differences may account for the contradiction between the prior and the present findings.

Race was a significant predictor in the regression models for five out of the six factors and overall CICE. While it was important to include race/ethnicity categories as control variables, the results should be interpreted with great caution. First, the superordinate categories used to group individuals (i.e., African American, European American, and Latino/a) do not reflect the significant diversity that exists within these categories. For example, the experiences that a Mexican-American youth might have may be very different from those of a Cuban-American youth or a Puerto Rican youth because of variation in their respective political and social histories and environments (Segura, Pachon, & Woods, 2001). Second, interpreting the results for race assumes that we can understand the impact that race has on the outcome variables, when in fact it does not account for the varying identities or social experiences that members of different racial or ethnic groups might experience (Bedolla, 2007; Bronfenbrenner & Crouter, 1983). For example, these results do not account for the disenfranchisement of some youth from traditional youth development organizations due to, for example, language barriers. Third, it is possible that the items used to measure CICE in this study are not capturing the types of activities and relationships that are important to minority youth, in that the instrument used in this study was not constructed with the histories, experiences, and interests of minority youth in mind and therefore, more standard measures of CICE may misrepresent the actual civic identities of minority youth (Sánchez-Jankowski, 2002). Consistent with other studies of civic identity or civic engagement in the field, the items used within the present study allow for comparisons between racial groups but not for nuanced evaluations of CICE along racial lines (Bedolla, 2007; Hart & Atkins, 2002; Sánchez-Jankowski, 2002; Sherrod, Flanagan, & Youniss, 2002; Youniss, Bales, & Christmas-Best, 2002).

Importantly, as noted above, this research assessed a young person's civic engagement and out-of-school time participation at one point in time. With regard to 4-H and other out-of-school time programs, we need to understand whether these programs will eventuate in active and engaged citizenry such that the young people grow into adults who are contributing effectively to self, family, community, and democracy and civil society. Again, then, longitudinal research is particularly important. Indeed, over time, it is likely that there would be growing SES and educational disparities among youth and that these disparities would be related to a gap in CICE scores (Flanagan, Levine, & Settersten, 2009; Zaff, Youniss, & Gibson, 2009). In addition, young people's activity patterns are likely to change as they enter high school and potentially have a much broader array of extra-curricular activities available to them. Thus, we also need to understand what other processes, demographic factors, and/or contexts influence the development of CICE and the relative role that organizations such as 4-H can play in light of the ever-increasing demands on young people's time and their increased independence from their parents. These longitudinal analyses must go beyond just knowing whether a program “works,” or what kinds of programs “work.” We must understand whether interventions designed to enhance CICE development are feasible, palatable, durable, and cost-effective in all of the real-world settings in which they are operating (Jensen, Hoagwood, & Trickett, 1999).

Finally, the present results need to be interpreted in light of the limitations of the study design. In regard to the results on out-of-school time activities, although we can control through systematic variation factors such as age, sex, race, and income, it may be that young people who are attracted to 4-H or who have 4-H more easily available to them are in some ways different civically than those who do not participate in 4-H. That is, while the vast majority of the young people involved in this study are “joiners” in that they participate in at least one out-of-school time activity, there may be something special about those young people who participate in 4-H specifically. The issue of selection effects may be especially important given the nature of 4-H as an organization that attracts families with time and transportation resources (Bobek, 2006). In addition, these results cannot be generalized to all young people in 4-H or to all youth development organizations. However, despite the limitations of this research, the results of this

study provide a starting point for considering an integrated model of civic engagement. Such a model could provide a more nuanced understanding about what it means to be an active and engaged citizen.

In addition, this model has important implications for youth-serving programs aimed at fostering civic engagement among youth. First, we have evidence that practitioners should differentiate among the cognitive, emotional, and behavioral facets of civic engagement. Programs should develop curricula attentive to the potentially disparate developmental trajectories of these components of civic engagement. For instance, youth who are cognitively and emotionally oriented to civic contribution may not be behaviorally engaged. In turn, there may be youth who are participating but have little emotional investment in such activity. In either of these cases, practitioners would need to devise distinct but integrated strategies for promoting CICE.

Second, we have evidence that participation involves investment by youth in several different contexts, that is, peers, adults, and the broader community. Again, then, practitioners may find it useful to have integrated strategies that are sensitive to the potentially distinct emotional valence of these facets of CICE in moving a young person toward effective and fulfilling civic engagement.

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