Civic-Minded Graduate: A North Star

Kathryn S. Steinberg Julie A. Hatcher Robert G. Bringle
Indiana University-Purdue University Indianapolis

Because of increased interest in higher education regarding the civic learning outcomes for college students and graduates, identifying and measuring civic learning outcomes is important to evaluating the efficacy of civic engagement programs and teaching strategies (e.g., service-learning). A conceptual framework for the Civic-Minded Graduate (CMG) construct is presented as well as three measurement procedures (i.e., CMG Scale, CMG Narrative Prompt and Rubric, CMG Interview Protocol and Rubric) that evaluate the construct. Results from three studies provide evidence of the psychometric properties of each measurement procedure and converging evidence to support the meaningfulness of the CMG construct. Implications of adopting the CMG as a "north star" for future research and practice are presented.

Boyer (1994) proposed a new model for higher education that has resulted in a reframing of the public purposes of higher education. He rejected the solution that small add-ons would accomplish his far-reaching vision for higher education; instead, he challenged institutions to make fundamental changes to the campus mission and infrastructure, nature of faculty work, student engagement in community-based learning, and relationships with community members. As a result, higher education institutions continue to rethink and redefine their public purposes (e.g., Bringle, Games, & Malloy, 1999; Boyer, 1994, 1996; Calleson, Jordan, & Seifer, 2005; Colby, Ehrlich, Beaumont, & Stephens, 2003; Edgerton, 1994; Harkavy & Puckett, 1994; O'Meara & Rice, 2005; Percy, Zimpher, & Brukardt, 2006; Rice, 1996). Coming to consensus on the public purposes of higher education and the purpose and vision for various aspects including civic engagement programs has important implications for both practice and research in higher education.

One of the most pervasive responses to Boyer's vision has been the proliferation of service-learning courses across disciplines and institutional types (Campus Compact, 2010). One of the key elements that distinguishes service-learning from other types of experiential learning (e.g., conducting research) and community-based learning (e.g., internships, practica) is that service-learning intentionally identifies the civic growth of students fostered through structured reflection and meaningful experiences within community organizations (Ash & Clayton, 2009; Battistoni, 2002; Bringle & Hatcher, 1995, 2002, 2009). Thus, the emergence of service-learning as a pedagogical strategy has heightened attention to the civic domain as a set of intentional educational

outcomes to be addressed in higher education (Astin & Sax, 1998; Battistoni, 2002; Zlotkowski, 1999).

However, service-learning is not the only pedagogical approach to cultivate civic learning and dispositions, and faculty and staff can use a variety of strategies to reach these learning outcomes (Colby et al., 2003). For example, instruction on civics and citizenship, democratic practices within the classroom, current event and readership programs, student leadership programs and governance, political action and involvement, community activities and internships, and co-curricular voluntary service may each contribute in important ways to civic learning outcomes (Bringle & Steinberg, 2010; Bringle, Studer, Wilson, Clayton, & Steinberg, 2011; Jacoby, 2009; Levine, 2003). The educational and civic experiences that occur during the college years are valued, in part, to the extent that they contribute to a graduate's ability and sense of responsibility to become an active and engaged citizen.

There is accumulating evidence that service-learning may be one of the most powerful and most effective methods for achieving civic learning outcomes (e.g., Astin & Sax, 1998, Eyler, Giles, Stetson, & Gray, 2001; Pascarella & Terenzini, 2005). Service-learning is highlighted as a high impact practice for increasing student engagement, learning outcomes, retention, and college success (e.g., Association of American Colleges & Universities, 2007; Brownell & Swaner, 2010; Kuh, 2008). Furthermore, as higher education becomes more interested in emphasizing civic growth of students, service-learning may be the best pedagogy for enhancing civic outcomes associated with particular aspects of the curriculum (e.g., general education, study in a major, capstone experiences, graduate and professional education).

Literature Review of
Civic Learning Outcomes

There are many dimensions that comprise the concept of civic learning outcomes (Hatcher, 2008; Keen, 2009). Battistoni (2002) organized the various aspects of civic learning into seven paradigms aligned with the disciplines and professions: (a) civic professionalism, (b) social responsibility, (c) social justice, (d) connected knowing: ethic of caring, (e) public leadership, (f) public intellectual, and (g) engaged/public scholarship. Although each of these seven approaches has specific skills and knowledge associated with it, a common element is civic-mindedness. Any disciplinary training or profession will vary in terms of its understanding of civic learning outcomes, yet a civic orientation is a bedrock to most disciplines and professions (Sullivan, 2005). This reinforces the position that one of the fundamental purposes of higher education in a democracy is to develop civic-minded graduates (Colby et al., 2003; Sullivan & Rosin, 2008).

Kirlin (2003) identified the civic skills "required to effectively participate in civic and political life" (p. 2). After a comprehensive review of literature in political science, education, and psychology (e.g., Battistoni, 1997; Boyte, 2000; Flanagan, 2003; Patrick, 2000, 2003; Verba, Schlozman, & Brady, 1995), Kirlin identified four major civic skills categories: (a) organization, (b) communication, (c) collective decision-making, and (d) critical thinking. Examples of civic skills in these categories include organizing and persuading others to take action, navigating the political system, consensus building toward the common good, listening to diverse perspectives, and forming positions on public issues.

The Association of American Colleges and Universities (AAC&U) identified Personal and Social Responsibility, including Civic Knowledge and Engagement, as an essential learning outcome for a twenty-first century liberal education (AAC&U, 2002, 2007). A conceptual framework, the civic learning spiral, delineates learning outcomes across six elements or braids that coexist simultaneously and are interconnected (Musil, 2009). These six domains (i.e., self, communities and culture, knowledge, skills, values, public action) shape learning for both curricular and co-curricular experiences during the college years. This model significantly influenced the development of the AAC&U Civic Engagement meta-rubric (Civic Engagement Value Rubric, n.d.).

Conceptualizing the Civic-Minded Graduate

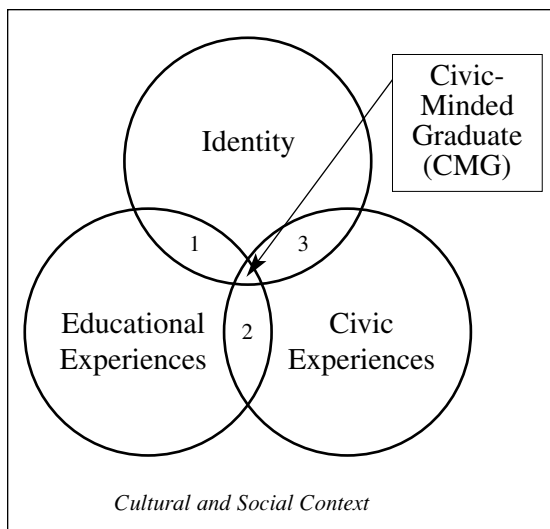Based on a review of the literature (Bringle & Steinberg, 2010; Hatcher, 2008) and conversations with informed scholars and professional staff within the Center for Service and Learning at Indiana University-Purdue University Indianapolis (IUPUI), a civic-minded graduate (CMG) is defined as:

> A person who has completed a course of study (e.g., bachelor's degree), and has the capacity and desire to work with others to achieve the common good. "Civic-mindedness" refers to a person's inclination or disposition to be knowledgeable of and involved in the community, and to have a commitment to act upon a sense of responsibility as a member of that community. (p. 429)

The conceptual framework for the CMG represents the integration of the following three dimensions (see Figure 1):

- *Identity:* This dimension represents the person's self-understanding, self-awareness, and self-concept. This attribute can involve knowing oneself as an individual, including values and commitments.

- *Educational Experiences:* This dimension represents the person's educational experiences, academic knowledge, and technical skills gained through formal and informal education. This attribute derives from curricular and co-curricular experiences during college, as well as career preparation and pre-professional activities (e.g., internships).

- *Civic Experiences:* This dimension represents ways in which a person is actively involved in the community and can include advocacy work, community service, leadership, civic organization participation, political involvement, volunteering, and voting.

Figure 1
IUPUI Civic-Minded Graduate Model

Cultural and Social Context

The CMG construct is represented by the integration of all three circles, or dimensions, in the Venn diagram. Greater integration is indicative of students dedicated to pursuing studies to increase their capacity to engage in a career or profession that can address issues in society. Students with this level of integration are involved in their communities and committed to making a difference and improving the lives of others. They also have a sense of being a social trustee of knowledge (Sullivan, 2005), recognizing that the knowledge they have gained in college is not only for their personal gain but also for the public good (Boyer, 1994). These civic-minded students are motivated to learn because they know that the knowledge and skills they acquire can equip them to make a difference in society. The degree of integration of all three dimensions in the Venn diagram is indicative of the degree to which the student's identity is well-integrated with their educational pursuits and civic attitudes and actions.

The Venn diagram also includes three areas of intersection distinct from, but related to, the CMG construct. These intersections represent the overlap of two of the three dimensions that comprise the CMG construct (i.e., identity and educational experiences, educational and civic experiences, civic experiences and identity). Making these conceptual distinctions is important for clarifying the elements that comprise the CMG construct as well as the elements that contribute to the development of the CMG attributes. Activities and experiences within each of the following intersections can shape students in terms of their civic-mindedness:

1. *Identity and Education*. At the intersection of identity and educational experiences is one's identity as a student. This area represents a student who is involved and intrinsically motivated in educational experiences, including curricular and co-curricular activities. Intersection 1 is larger for students who are actively engaged in their education and have integrated the knowledge they have gained into their sense of identity of who they are (e.g., "I am a nursing student", "I am an artist"). This area is smaller for students who do not consider their education to shape their current or future identity, who merely take courses, or who participate in educational activities in a perfunctory manner. A student's identity represented in Intersection 1 is unrelated to a sense of civic responsibility and, if the student engages in civic activities, those activities are not merged with educational experiences.

2. *Educational Experiences and Civic Experiences*. At the intersection of educational and

civic experiences are educational activities based in the community, but which do not become part of the person's identity. Intersection 2 might be larger for a student who has been involved in community-based research, alternative break service trips, internships, applied learning in the community, or service-learning courses that challenge them to learn through active engagement. However, these activities are not integrated into the person's identity. This area may be smaller for students who had less frequent community involvement through their educational activities (i.e., education that is primarily didactic and classroom-based) and only episodic community-based activities while in school (e.g., volunteered one time because it was required in a class). These types of educational experiences represented by Intersection 2 may be valuable for academic learning but are unrelated to a students' sense of who they are as a person or as a member of their community.

3. *Identity and Civic Experiences*. At the intersection of identity and civic experiences is civic identity. The formation of civic identity is a developmental process (Baxter-Magolda & King, 2004; Flanagan, 2003; Flanagan & Levine, 2010; Knefelkamp, 2008). Intersection 3 represents viewing oneself "as an active participant in society with a strong commitment to work with others toward the public good" (Hatcher, 2010, p. 85). When the overlap is large, civic attitudes, commitments, values, and dispositions have resulted from active participation in the community and these are well-integrated into identity. A large intersection 3 represents students actively involved (e.g., service through a church, volunteer in neighborhood), yet this involvement is unrelated to their educational experiences on campus. A small intersection 3 represents students who have infrequent community involvement that has limited impact on their sense of who they are as people or as members of the community.

The CMG Venn diagram is placed within a frame to indicate that students are situated within a particular set of cultural norms and social context. The student interacts and relates with other students, family members, university personnel, and community members, all of whom influence, and are influenced by, the person. In addition, cultural norms are learned and observed through social contexts and these influence and shape identity as well as educational and civic opportunities and experiences.

Domains within the CMG Construct

Based on the CMG construct, a comprehensive list of student civic learning outcomes was generated by the program staff in IUPUI's Center for Service and Learning. These civic learning outcomes were examined with a broad range of educational experiences in mind (e.g., service-learning courses, volunteering, co-curricular service programs) (Bringle & Steinberg, 2010; Bringle et al., 2011). Ten core elements were agreed to be the most central components indicative of a CMG. Learning objectives associated with students' knowledge outcomes, dispositions, skills, and behavioral intentions were then generated. The construct of CMG is comprised of the following ten domains (Bringle & Steinberg, 2010) and these are clustered by knowledge, skills, dispositions, and behavioral intentions:

Knowledge:

- *Volunteer Opportunities:* understanding of ways to contribute to society, particularly through voluntary service, and including knowledge of nonprofit organizations.

- *Academic Knowledge and Technical Skills:* understanding of how knowledge and skills in at least one discipline are relevant to addressing issues in society.

- *Contemporary Social Issues:* understanding of current events and the complexity of issues in modern society locally, nationally, or globally.

Skills:

- *Communication and Listening:* ability to communicate (written and oral) with others, as well as listen to divergent points of view.

- *Diversity:* understanding the importance of, and the ability to work with, others from diverse backgrounds; also appreciation of and sensitivity to diversity in a pluralistic society.

- *Consensus-Building:* ability to work with others, including those with diverse opinions, and work across differences to come to an agreement or solve a problem.

Dispositions:

- *Valuing Community Engagement:* understanding the importance of serving others, and being actively involved in communities to address social issues.

- *Self-Efficacy:* having a desire to take personal action, with a realistic view that the action will produce the desired results.

- *Social Trustee of Knowledge:* feeling a sense of responsibility and commitment to use the knowledge gained in higher education to serve others.

Behavioral Intentions:

- A stated intention to be personally involved in community service in the future.

Each of these ten domains is evident in the theoretical or empirical literature base related to service-learning and civic engagement (Bringle & Steinberg, 2010). In terms of the knowledge domains, a number of studies have focused on the cognitive impacts of service-learning. For instance, Bringle, Hatcher, and MacIntosh (2006) found that student interest in three service program types (i.e., charity, projects, social change) were each correlated with interest in and knowledge of the nonprofit sector. Many studies indicate that service-learning contributes to academic outcomes (e.g., Batchelder & Root, 1994; Eyler & Giles, 1999; Markus, Howard, & King, 1993; Vogelgesang & Astin, 2002). Driscoll, Holland, Gelmon, and Kerrigan (1996) and Astin and Sax (1998) found that service-learning was associated with improved student understanding of problems faced by local communities.

There is evidence that service-learning contributes to a range of skills. Osborne, Hammerich, and Hensley (1998) found that service-learning improved written communication skills. In addition, Tucker and McCarthy (2001) reported on the impact of service-learning on students' self-perceived presentation skills. Studies have also documented that service-learning has an effect on student perceptions, values, and behaviors related to diversity skills (e.g., Astin & Sax, 1998; Driscoll et al., 1996; Eyler & Giles, 1999; Fitch, 2004; Osborne et al., 1998). Kirlin (2003) identified collective decision making as a fundamental civic skill that includes organizing and persuading others to take action and consensus-building for the common good.

Concerning the affective domains, or dispositions, Markus et al. (1993) found that students in service-learning courses attached increased importance to volunteering, whereas non-service-learning students did not change their opinions over the semester. The role of service-learning on student self-efficacy has been demonstrated by Eyler, Giles, and Braxton (1997), Reeb, Katsuyama, Sammon, and Yoder (1998), and is further explored by Reeb, Folger, Langsner, Ryan, and Crouse (2010). The disposition of being a social trustee of knowledge is grounded in the work of Sullivan (2005) who contends that professionals have a civic and moral responsibility to use their knowledge in socially responsible ways and empirically supported by Hatcher (2008).

Finally, the behavioral intentions domain is based in the psychological Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) and the Theory of Planned Behavior (Ajzen, 1985,

1991). In both of these theories, behavioral intentions are viewed as predictors and indicators of future behaviors. Although the behavioral intentions domain could have been included in our list of dispositions, we have listed it separately to emphasize its future-oriented nature.

Instruments Developed to Measure the CMG Construct

After delineating the ten conceptual domains for the CMG, three methods for measuring the construct were developed: (a) the CMG Scale (a quantitative self-report measure), (b) the CMG Narrative Prompt and Rubric (a qualitative measure), and (c) the CMG Interview Protocol and Rubric (face-to-face interview questions). Each of these three instruments is described below, and may be accessed online at http://hdl.handle.net/1805/2667.

Civic-Minded Graduate Scale

The CMG Scale (see Table 1 next page; also available at http://hdl.handle.net/1805/2667) is a 30-item self-report measure with a 6-point response format (*strongly agree* to *strongly disagree*). Many of the items considered for the CMG Scale came from prior research (Eyler & Giles, 1999), including from a review of the Selfism Scale (Phares & Erskine, 1984), the Civic Attitudes and Skills Questionnaire (Moely et al., 2002), and the Public Service Motivation Scale (Perry, 1996). The items selected or developed for the CMG Scale were grouped into the Knowledge, Skills, Dispositions, and Behavioral Intentions domains within the conceptual framework. Because civic-mindedness is likely to be a socially desirable trait, the CMG items used in Study One contained both negatively-worded and positively-worded items to counteract a potential social-desirability bias by respondents. All items in Table 1 include the phrase "at IUPUI" to focus the respondents' attention on their experiences as a student at this particular university; this could be revised to refer to a particular course, a particular program, or all educational experiences during college. The CMG Scale is particularly useful when a quantitative measure is desired, such as for formative (pre-test) evaluation of student civic development, or pre-post assessment of student growth in year-long programs.

Civic-Minded Graduate Narrative Prompt and Rubric

The CMG Narrative Prompt was developed to elicit from students an authentic writing sample reflecting their degree of civic-mindedness. The narrative prompt was designed to provide convergent validity information about the CMG Scale and to provide an additional, qualitative assessment measure. Students were asked to read the following statement, rate the extent to which they agreed with the statement, and then write a response:

> I have a *responsibility* and a *commitment* to use the *knowledge and skills* I have gained as a college student to *collaborate with others*, who may be *different* from me, to help *address issues in society*.

> Please indicate the extent to which you agree or disagree with this statement by circling the appropriate number.

Strongly Disagree					Strongly Agree
1	2	3	4	5	6

> Considering your education and experiences as a college student, explain the ways in which you agree or disagree with this statement and provide personal examples when relevant.

The rating scale (*strongly disagree* to *strongly agree*) was included to engage students in reflecting on their personal experiences and values in order to prime their written response.

The CMG Narrative Rubric was developed to evaluate the CMG Narrative Prompt responses. During the development phase, written narratives were collected from 38 students in three service-learning courses, including a 100-level course, a 300-level course, and a 400-level course. A content analysis of the written narratives revealed several basic themes, which provided the following five domains for the CMG Narrative Rubric: (a) Having a civic identity, (b) understanding how social issues are addressed in society, (c) actively participating in society to address social issues, (d) collaborating with others (includes diversity issues, interconnectedness, mutuality, and respect), and (e) understanding the benefit of education to address social issues. These five domains were compared to the AAC&U Civic Engagement Rubric as a cross check. The CMG Narrative Prompt and Rubric was also vetted with a group of thirteen faculty from the University of Michigan – Flint who used the Rubric to evaluate narrative samples. Evidence from the narratives was evaluated based on a 7-point rating scale ranging from Novice to Proficient. After making revisions, the CMG Narrative Rubric was then used by five raters from the Center for Service and Learning to evaluate consistency in its use. The CMG Narrative Prompt and Rubric can be used as an alternative approach to self-report measures, such as the CMG Scale and the Civic Attitudes and Skills Questionnaire (Moely et al., 2002), for assessing civic-mindedness among students. The CMG Narrative Rubric is available online at http://hdl.handle.net/1805/2667.

Table 1
IUPUI Civic-Minded Graduate Scale (Items Sorted by Subscale)

Knowledge: Volunteer Opportunities
   Item 1: My experiences at IUPUI have helped me know a lot about opportunities to become involved in the community.
   Item 15: Based on my experiences at IUPUI, I would say that most other students know less about community organizations and volunteer opportunities than I do.
   Item 7: Through my experiences at IUPUI, I am very familiar with clubs and organizations that encourage and support community involvement for college students.

Knowledge: Academic Knowledge and Technical Skills
   Item 4: My educational experience at IUPUI has given me the professional knowledge and skills that I need to help address community issues.
   Item 10: After being a student at IUPUI, I feel confident that I will be able to apply what I have learned in my classes to solve real problems in society.
   Item 2: My experiences at IUPUI have enabled me to plan or help implement an initiative that improves the community.

Knowledge: Contemporary Social Issues
   Item 21: My experiences at IUPUI have prepared me to write a letter to the newspaper or community leaders about a community issue.
   Item 22: My education at IUPUI has made me aware of a number of community issues that need to be addressed.
   Item 13: My education at IUPUI has motivated me to stay up to date on the current political issues in the community.

Skills: Listening
   Item 16: My experiences at IUPUI have helped make me a good listener, even when peoples' opinions are different from mine.
   Item 8: My IUPUI education has prepared me to listen to others and understand their perspective on controversial issues.

Skills: Diversity
   Item 29: My experiences at IUPUI have helped me realize that I prefer to work in settings in which I interact with people who are different from me.
   Item 3: My IUPUI education has helped me appreciate how my community is enriched by having some cultural or ethnic diversity.
   Item 18: My experiences at IUPUI have helped me develop my ability to respond to others with empathy, regardless of their backgrounds.

Skills: Consensus-Building
   Item 24: As a result of my experiences at IUPUI, other students who know me well would describe me as a person who can discuss controversial social issues with civility and respect.
   Item 28: My experiences at IUPUI have helped me realize that when members of my group disagree on how to solve a problem, I like to try to build consensus.
   Item 6: When discussing controversial social issues at IUPUI, I have often been able to persuade others to agree with my point of view.

Dispositions: Valuing Community Engagement
   Item 12: My IUPUI experiences helped me to realize that I like to be involved in addressing community issues.
   Item 26: My IUPUI experiences have helped me develop my sense of who I am, which now includes a sincere desire to be of service to others.
   Item 14: Based on my experiences at IUPUI, I would say that the main purpose of work is to improve society through my career.
   Item 30: My experiences at IUPUI have helped me realize that it is important for me to vote and be politically involved.

Dispositions: Self-Efficacy
   Item 9: My education at IUPUI has increased my confidence that I can contribute to improving life in my community.
   Item 23: My IUPUI education has convinced me that social problems are not too complex for me to help solve.
   Item 27: Because of my experiences at IUPUI, I believe that having an impact on community problems is within my reach.

Dispositions: Social Trustee of Knowledge
   Item 11: As a result of my experiences at IUPUI, I want to dedicate my career to improving society.
   Item 20: Because of the experiences I had at IUPUI, I feel a deep conviction in my career goals to achieve purposes that are beyond my own self-interest.
   Item 25: I believe that I have a responsibility to use the knowledge that I have gained at IUPUI to serve others.

Behavioral Intentions
   Item 5: Because of my IUPUI experiences, I plan to stay current with the local and national news after I graduate.
   Item 17: My experiences at IUPUI have increased my motivation to participate in advocacy or political action groups after I graduate.
   Item 19: Because of my experiences at IUPUI, I intend to be involved in volunteer service after I graduate.

Civic-Minded Graduate Interview Protocol and Rubric

A semi-structured interview protocol was developed to collect in-depth information from students about their involvement in community activities, what motivated their involvement, and how they perceived their college education in terms of preparing them for active citizenship. The semi-structured CMG Interview Protocol included (a) a problem situation, asking students to describe the action they would take during a community crisis, (b) questions about their experiences at IUPUI, and (c) other open-ended items distinct from the items on the CMG Scale but intended to measure the same construct. The CMG Interview Rubric was adapted from the CMG Narrative Prompt Rubric. It includes three components of the CMG Narrative Rubric (i.e., Civic Identity, Benefit of Education to Address Social Issues, Active Participant in Society) because they correspond to the three circles in the Venn diagram (i.e., Identity, Educational Experiences, Civic Experiences). The CMG Interview Protocol and Rubric were designed to gather converging evidence to validate the CMG construct and these are available online at http://hdl.handle.net/1805/2667.

Psychometric Evidence from Three Studies

Three studies were conducted to evaluate the psychometric properties of the three measurement procedures and the validity of the CMG construct. These three studies are briefly summarized in Table 2 (see next page) and described in more detail below.

Study One

Purpose. The first study was designed to establish preliminary evidence of the reliability and validity of the CMG Scale.

Method. Participants ($n = 70$) were IUPUI students who tutor youth as part of either a service-based scholarship program for undergraduate students or a community-based work-study program. All respondents had more than one year of college. Students completed the CMG Scale at the beginning and at the end of the academic year, and also responded to demographic items (e.g., age, class status, major, service-based financial aid) as well as items about their frequency of participation in service-learning courses and community activities (e.g., campus service events, advocacy or public debates, service through student clubs).

Results. Cronbach's alpha of the CMG Scale was .85 in the fall and .87 in the spring, demonstrating good internal consistency among items. Test-retest reliability for the nine-month interval was .62. A principle factor analysis of the fall data revealed two primary factors accounting for 47.8% of the variance in responses, which corresponded roughly to the positively- and negatively-worded items. The number of service-learning courses a student had taken (only 57 respondents reported on the number of service-learning courses) was positively correlated with the CMG Scale Overall Average Score, r (55) = .38, $p < .01$. The correlations for subscale scores with the number of service-learning courses were as follows: .30 (Knowledge), .29 (Skills), .39 (Dispositions), and .07 (Behavioral Intentions); all correlations were significant at the .05 level or less, except for Behavioral Intentions which was nonsignificant.

Study Two

Purpose. Study Two was designed to examine further evidence of the reliability and validity of the CMG Scale. In particular, the study focused on the factor structure of the scale and the convergent and discriminant validity of the instrument. In addition the Integrity Scale (Bringle, Hatcher, & MacIntosh, 2006) was included to provide a measure of a related construct to support the construct validity of the CMG Scale. The Integrity Scale (Bringle et al., 2006) contains items sampling the following components of Morton's (1995) concept of integrity:

> willingness to recruit other volunteers as a public declaration of interest in and commitment to community service; the degree to which friends know about the respondent's interest in community service; interest in making a difference over time as a means for distinguishing life-course commitment to service (vs. an episodic approach to service); thinking about community service when away from it as evidence of how encompassing it is in their lives (vs. compartmentalized); empathic responses; viewing service as part of an ongoing commitment; role of community service as part of one's identity; degree to which community service is transformational for one's life; and identification (vs. separateness) with those served. (Bringle et al., 2006, pp. 7-8)

Although the Integrity Scale overlaps somewhat with the content of the CMG Scale and the civic-mindedness construct, the item content of the Integrity Scale also samples other areas of civic-mindedness and, therefore, supports its role in providing converging evidence.

Method. Participants ($n = 86$) were IUPUI undergraduate students from (a) a service-based scholarship program or (b) a community-based work-study program in which students tutor youth. Respondents completed the CMG Scale at the beginning and end of the academic year. For this and subsequent studies, the negative CMG items were changed to positive wording; hence, the items in Table 1 are worded positively. To evaluate if this change resulted in a social-

Table 2

Studies to Validate the Civic-Minded Graduate Construct and Instruments

Study	Timeframe	Sample	Instrument(s) Used in Study
Study One	Post-test April 2007	Convenience sample of 70 college students involved in service-based scholarship or youth tutoring program	CMG Scale (positively and negatively worded items)
Study Two	Pre-test August 2007 Post-test April 2008	Convenience sample of 86 college students involved in service-based scholarship or youth tutoring program	CMG Scale (positively worded items) Crowne-Marlowe Social Desirability Scale Morton Integrity Scale
Study Three	Spring 2009	Sample of 606 college students; Sub-sample of 41 college students	CMG Scale CMG Narrative Prompt and Rubric CMG Interview Protocol and Rubric

ly desirable response bias, in the fall students also completed the 13-item Crowne-Marlowe Social Desirability Scale Form C (Reynolds, 1982).

As an evaluation of convergent validity, the fall administration of the CMG Scale also included the 9-item Integrity Scale (Bringle et al., 2006) designed to assess Morton's (1995) concept of depth of integration between community service values and action.

Results. Cronbach's alpha of the CMG Scale was .96 for fall and .96 for spring administrations, indicating good internal consistency across items. Test-retest reliability for the nine-month interval was .43. A principle components factor analysis of the fall data resulted in a one-factor solution, which accounted for 45.7% of the variance in student responses. The number of service-learning courses a student had taken was positively correlated with the CMG Scale Overall Average Score, r (82) = .21, $p < .05$. Correlations for subscale scores with the number of service-learning courses were nonsignificant, except for the Knowledge subscale, r (82) = .29, $p < .01$. In the spring administration, the CMG Overall Average Score correlated positively with the number of service-learning courses a student had taken, r (64) = .29, $p < .05$. In addition, a significant positive correlation was found between the CMG Scale and the Integrity Scale, r (84) = .32, $p < .01$ for the fall data. This also supports the convergent validity of the CMG Scale, because the Integrity Scale was designed to assess integration between values and action related to community service, and so theoretically the scores on this instrument were expected to correlate with those on the CMG Scale.

The Crowne-Marlowe Social Desirability Scale had a nonsignificant correlation with the CMG Scale for the fall data, r (84) = .13, $p > .05$. This discriminant validity evidence indicates that, although civic-mindedness is a positive attribute, and all of the items were positively worded, the CMG Scale is not simply a measure of the tendency to say good things about one's self.

Study Three

Purpose. Study Three was designed to increase the sample size and establish the validity of the civic-minded graduate construct by triangulating across multiple methods by cross-validating the CMG Scale (a quantitative measure) with the CMG Narrative Prompt (a written qualitative measure) and the CMG Interview (an oral qualitative measure).

Method. A random sample of undergraduates ($n = 4,396$) who had attended IUPUI at least two semesters was contacted through campus email addresses and invited to participate in an online survey to understand the influence of community involvement on academic, personal, and civic development. The participant sample ($n = 606$, 13.8% response rate) of undergraduate students was asked to complete both the CMG Scale and the CMG Narrative through an online survey. A second email was sent to 200 students randomly selected from the participant sample, inviting participation in face-to-face interviews. Students received gift-cards for participating in the interviews. A total of 41 students participated in face-to-face interviews using the CMG Interview Protocol. Interviews lasted from 8 to 45 minutes and were audio-taped for subsequent rating and analysis. Of the 41 students interviewed, all had completed the

CMG Scale, and 29 had also completed the CMG Narrative Prompt.

Results of the CMG Scale. Cronbach's alpha for the CMG Scale was .96 for the total sample. Principal component factor analysis indicated one factor that accounted for 49.4% of the variance in responses. This indicates that the scale is unidimensional and lends further support for its construct validity. Consistent with the previous two studies, the number of service-learning courses a student had taken was positively correlated with the CMG Scale Overall Average Score, r (595) = .34, p < .001, again providing further evidence for construct validity. Correlations for subscale scores with the number of service-learning courses were .37 (Knowledge), .29 (Skills), .31 (Dispositions), and .28 (Behavioral Intentions); all were significant at the p < .01 level.

Results of the CMG Interview Protocol. To evaluate the 41 interviews for content indicative of civic-mindedness, three raters were trained to use the CMG Interview Rubric before listening to the audiotapes. The raters then made independent ratings on the three categories of the Interview Rubric (i.e., Civic Identity, Benefit of Education to Address Social Issues, Active Participant in Society). The three raters discussed and came to a Consensus Total Score rating for each interview. In looking at ratings from the CMG Interview, the frequency distributions of all category scores, individual rater Total Scores, and Consensus Total Scores showed that raters used the full range of rating scores, there was variability in the ratings, and ratings were approximately normally distributed. The inter-rater reliability (intra-class) for the three raters in all Category and Total Score ratings were as follows: Civic Identity (.95), Benefit of Education (.92), Active Participant in Society (.93), and Consensus Total Score (.95).

The CMG Interview Protocol was designed to provide supporting evidence on the construct of civic-mindedness and convergent validity evidence for the CMG Scale. Consensus Total Scores on the 41 interviews were significantly correlated with Overall Average Scores on the CMG Scale, r (39) = .49, p < .01. Subscale scores correlated with interview Consensus Total Scores as follows: Knowledge (.48), Skills (.32), Dispositions (.53), Behavioral Intentions (.54); all were significant at the p < .05 level.

Further analysis indicated the CMG Scale Overall Average Scores for interviewed students were not significantly different from a randomly selected control group (N=41) who completed the CMG Scale but were not interviewed, F(1, 80) = 1.41, p >.05. This indicates that interviewed students were representative of the total sample who completed the survey.

Results of the CMG Narrative. Out of the 606 students who completed the CMG Scale, 397 (65.5%) also wrote a response to the CMG Narrative Prompt. Because this was an online survey rather than a class assignment, the narrative responses were brief, ranging from one to six sentences, and most of the responses were only one to three sentences in length. Despite the brevity of the narrative responses, there was variability in ratings given by the three raters. Most narrative scores were low and the distribution was positively skewed.

The CMG Narrative Rubric was used to rate the 29 narrative responses of the 41 students who were interviewed, as well as a comparison group of narratives from the control group of 41 of non-interviewed students who were randomly selected from the sample. There were no statistically significant differences in ratings of narrative responses between the Interviewed Group and Group Not Interviewed, F(1, 68) = .21, p >.05, indicating that the interviewees' narratives were not significantly different from the larger sample.

Inter-rater reliability (intra-class) for CMG Narrative Total Score ratings was r = .86 for the Interviewed Group, and r = .83 for the Group Not Interviewed. For the Interviewed Group, the Narrative Total Scores had a significant correlation with the CMG Scale Overall Average Scores, r (27) = .45, p < .01. Additionally, CMG Narrative Total Scores had a positive correlation approaching statistical significance with Interviewed Consensus Total Scores, r (27) = .31, p > .05. Taken together, these results support the construct validity of the CMG Narrative Prompt, indicating that the CMG Narrative Prompt and Rubric is a useful measure of the CMG construct.

Discussion

This research utilized multiple data collection methods to triangulate evidence for the construct validity of the CMG construct. Research is strengthened when it incorporates multiple measures and multiple designs allowing triangulation of converging results to increase understanding, confidence, and generalizability (Creswell, 1998; Patton, 2002; Steinberg, Bringle, & McGuire, in press). The three measurement procedures (i.e., CMG Scale, CMG Narrative Prompt, CMG Interview Protocol) used different modalities to assess the construct of civic-mindedness among college students. The CMG Scale is a quantitative self-report approach. A qualitative approach is represented with the CMG Narrative Prompt and the CMG Interview Protocol. Results indicate that the CMG Scale showed good temporal reliability, internal consistency (i.e., unidimensionality), and convergent validity with the other two measurement procedures. In addition, the rubrics for the CMG Interview Protocol and CMG Narrative Prompt both demonstrated high inter-rater reliability. Significant correlations between scores and ratings

on all three instruments serve to validate the CMG construct validity of the measures, and of the civic-mindedness construct among college students.

There are good reasons to question the appropriateness, meaningfulness, and validity of self-report measures of various attributes of individuals, such as attitudes, values, and learning (Bringle, Phillips, & Hudson, 2004; Steinke & Buresh, 2002) and self-reports of learning (Bowman & Brandenburger, 2010; Steinke & Buresh). One reservation is associated with social desirability response bias; however, these results suggest that the CMG Scale does not contain a social desirability response bias.

Studies One and Two involved small convenience samples of respondents (*n* = 70 and 86, respectively) from programs focused on community-based activities (e.g., volunteering, tutoring). As such, those samples can be assumed to contain self-selected students predisposed toward civic-mindedness. This restriction of range may be the reason half of the correlations between the subscales of the CMG Scale and number of service-learning courses were nonsignificant. These shortcomings were addressed in Study Three, which included a much larger sample (*n* = 606) of students. In Study Three, the correlations were both significant and larger. Although not all invited students chose to participate in the interview portion of Study Three, the variability of ratings and scores on the other measures indicated that self-selection was not a problem, and students who chose to be interviewed were not predisposed toward civic-mindedness. In addition, there were no statistically significant differences in ratings of CMG Narrative Prompt responses or CMG Scale Overall Average Scores between the interviewed students and a randomly selected control group. This indicated that interviewed students were representative of the total sample who completed the survey, and supports the conclusion that self-selection bias was not an issue.

Implications for Research

With the continued level of civic engagement among college students (Campus Compact, 2010) and the varied ways in which individuals can develop civic habits (e.g., Colby & Damon, 1992; Flanagan & Levine, 2010), higher education must better understand how curricular and co-curricular programs contribute to the civic development of students. CMG may provide a useful and meaningful benchmark in the journeys of students through their post-secondary educational experiences (Bringle et al., 2011). Furthermore, research demonstrates that collegiate community-based experiences have a lasting consequence because students are most likely to continue volunteering after college (Sax, 2006-7). What program elements are critical for increasing the

overlap, or integration of, the identity, civic, and educational domains? Which practices contribute to developing civic-minded graduates? What developmental theories are most relevant to understanding those changes and guiding the design of experiences to optimize civic growth?

Bringle et al. (2011) identify three developmental theories for consideration and evaluation in future research: (a) Deci and Ryan's Self-Determination Theory, which provides a framework for examining the internalization of motivation (Deci, Koestner, & Ryan, 1999; Deci & Ryan, 2000); (b) the intergroup contact hypothesis, which identifies the conditions under which interactions between individuals who are different can produce empathy, understanding, and more positive attitudes (Hewstone & Brown, 1986); and (c) the Self-Authorship and Learning Partnerships models (Baxter-Magolda & King, 2004) that structure students experiences in college to develop self-authorship (i.e., internally constructed) and cognitive maturity. Bringle et al. note that all three theories highlight the role of interpersonal relationships as well as the qualities of relationships as important to developing civic-mindedness. These qualities identify variables that can be examined in research to determine their relative importance to different kinds of civic outcomes.

The analysis of civic-mindedness in the three studies was focused on domestic service-learning. Are global citizenship and global civic growth unique areas of development warranting special consideration in terms of definition, program design, measurement, and research (Bringle, Hatcher, & Jones, 2011; Lewin, 2009)? Do international service-learning (ISL) experiences have a greater impact than domestic service-learning in terms of the civic development of students? Bringle and Hatcher (2011) predicted that international service-learning would demonstrate an *intensification effect*, i.e., the capacity to intensify any outcome previously documented for study abroad, service-learning, or international education in isolation. In particular, they predicted that

> even short-term ISL [may result] in greater improvement in intercultural skills, more rapid language acquisition, better demonstration of democratic skills, deeper understanding of global issues, greater transformation of students' lives and careers, more sensitivity to ethical issues, and more life-long interest in global issues (to identify only a few possible outcomes) than either domestic service-learning, international education without study aboard or service-learning, and traditional study abroad. (p. 22)

Furthermore, the domains of the CMG are all rooted in an American understanding of civic learning.

How does the delineation of goals and design of curricular and co-curricular programs vary depending on national context? Thomson, Smith-Tolken, Naidoo, and Bringle (2011) provide a cross-cultural analysis for how language, politics, ethnic differences, educational philosophies, and educational structures shape civic-engagement activities. The degree to which generalizability of the CMG model is appropriate or warrants modification when considering educational systems in other countries will need to be conceptually and empirically evaluated.

Future research can also focus on further validation of the civic-mindedness construct and the CMG instruments. For example, confirmatory factor analysis of responses to the CMG Scale with another large sample of students would help verify the unidimensionality of the construct. Convergent validity would be enhanced by correlating the CMG tools with other instruments that measure similar constructs, such as the Civic Attitudes and Skills Questionnaire, Community Service Self-Efficacy Scale, and measures of general and intercultural communication skills. Other research could focus on the utility of the instruments for measuring the outcomes of specific service learning courses or programs.

Implications for Practice

Clarity of purpose yields important results for professional staff and for organizations; when the end goal is clear, there is an increased ability to design stronger programs, use resources wisely, and collaborate with colleagues to support and advance the agreed upon mission. The CMG construct serves as the end goal for many curricular and co-curricular activities at the IUPUI Center for Service and Learning. The CMG has shaped practice as well as research. In spite of the variation across programs within the Center (e.g., service-learning, community work-study, alternative break trips, service-based scholarship programs), the CMG model provides staff with a common understanding of and appreciation for the strengths of individual programs and the similarities of purpose (e.g., knowledge, skills, and dispositions) across the programs focused on student civic development (Bringle et al., 2011).

Yet the strength of the model will reside in the degree to which others in higher education value the framework and use it or adapt it as a way to support the development of programs for students, to work with faculty on curricular design, to improve co-curricular programs, and to strengthen partnerships with the community to reach common goals. As with all delineation of civic learning outcomes, use of the measurement procedures for the CMG by other colleges and universities to evaluate the applicability, meaningfulness, and validity of the measures in different contexts (e.g., students, programs, curricula) will be important. Some programs many have particular learning objectives not explicitly delineated for the CMG (e.g., leadership, teamwork, general problem-solving skills, knowledge of specific content areas associated with social issues, community impact of service-learning), and these may warrant additional measures for program evaluation.

The CMG model has other implications for program development, implementation, and assessment. The domains that comprise the CMG Scale can shape the design of programs to develop particular aspects of the CMG, inform topics covered in student training sessions, or guide the components of a student e-portfolio that capture civic learning outcomes (Norris, Price, & Steinberg, 2010, 2011). Within the scope of CMG, aspects of programs or course design (e.g., reflection prompts, key readings, staff responsibilities) can be designed to support specific types of students' civic growth. The measurement procedures for CMG can also provide feedback to program coordinators on the effectiveness with which a program is meeting targeted outcomes. The CMG Narrative Prompt or Interview could also be integrated into the applications for student scholarships, recognitions, or awards as a way to evaluate civic-mindedness of the applicants when that is a criterion for selection and recognition.

The written narrative and interview procedures were developed not only to corroborate the self-report measure of the CMG Scale but also to provide alternative tools that might be more appropriate for some uses. For example, the CMG Narrative Prompt can be used as a reflection prompt in service-learning courses. This could be done with the expectation that students will demonstrate knowledge and understanding of particular academic lessons in their written responses. The narrative prompt could be used at the end of a course, or multiple times during a course, to permit feedback from instructors and clarification and elaboration by the students. The CMG Rubric provides students with a set of expectations for how the narratives will be evaluated and a basis for instructor evaluation and feedback. In addition, there are important implications for working with faculty on curriculum development, assessment, and research. The dimensions of the CMG construct can clarify civic learning outcomes within a course, inform prompts used in written reflection activities, or shape curricular outcomes for an entire academic department.

Results from the CMG Scale or CMG Narrative Prompt could be used for both formative and summative program evaluation and institutional assessment. At a time when many accrediting associations are emphasizing the value of civic learning, understanding the similarities and differences in civic growth across disciplines and majors would be

important and could be documented and assessed with these tools. Clarifying the end goal for civic learning has important implications for assessment at the institutional level. The CMG Scale, CMG Narrative Prompt, or CMG Interview could be used as an exit measure of civic-mindedness for graduating students in capstone courses, or in undergraduate, graduate, and professional programs, with reference to how their educational experiences at a particular institution prepared them to be active citizens. The CMG provides a basis for capturing a portrait of how an institution which takes seriously its civic engagement mission is producing particular qualities in its students. Furthermore, the CMG provides a way of communicating and discussing civic learning outcomes with various internal and external audiences.

Most of the consideration concerning the CMG construct has been focused on students; hence "graduate" in the CMG term. Hatcher (2008) developed a conceptual analysis and a scale to measure the construct Civic-Minded Professional, which is focused on the civic journey of students after graduation. One of the strengths of delineating components of civic-mindedness is that, even though it was developed with student outcomes in mind, it is not limited to them. Civic-mindedness can be a developmental goal and learning objective for constituencies other than students involved in service-learning and civic engagement; (e.g., faculty, administrators, nonprofit staff, community residents) (Bringle, Clayton, & Price, 2009). Determining how programs can contribute to deepening civic-mindedness in each of these constituencies has interesting promise for broadening the examination of the developmental journey beyond students, for planning new programs or revising existing programs, and for evaluating civic engagement programs and research. Thus, by focusing on the CMG as a north star, colleges and universities can better embody Boyer's (1994) vision of the public purposes of higher education.

Note

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Authors

KATHRYN S. STEINBERG (ksteinbe@iupui.edu) is an assessment specialist at the IUPUI Center for Service and Learning, and teaches on an adjunct basis in the Psychology Department at IUPUI. Prior work includes nine years as the assistant director of research at the Center on Philanthropy at IUPUI. Her research focuses on assessment of student civic learning outcomes and measurement of giving and volunteering in the U.S.

JULIE A. HATCHER (jhatcher@iupui.edu) is associate professor of Philanthropic Studies in the School of Liberal Arts at IUPUI. She is the director of Undergraduate Programs and a senior scholar with the Center for Service and Learning. Her research focuses on the role of higher education in civil society, civic learning outcomes in higher education, and the philanthropic motivations of professionals.

ROBERT G. BRINGLE (rbringle@iupui.edu) is chancellor's professor of Psychology and Philanthropic Studies and executive director of the IUPUI Center for Service and Learning. His research interests for service-learning, community service, and civic engagement include student and faculty attitudes and motives, educational outcomes, institutionalization, and assessment and measurement issues.