

RUNNING HEAD: College students as citizens

College students as citizens: Unpacking the dimensions of civic engagement in college

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Abstract

Several reports and commissions have published troubling statistics about declines in civic competencies and action among college students. Such reports have typically painted students with a broad brush, failing to consider how unique groups of students may cluster in relation to civic behaviors. Relying on alumni survey data from American College Testing (ACT), we employ a latent class analysis (LCA) to examine how college students uniquely group by civic and non-civic behaviors. Results reveal a robust portrait of civic engagement in college, challenging past analyses that exclusively examine frequencies of civic behaviors as the salient measure of civic participation.

Reinvigorating the civic purposes of higher education has been the rallying cry among university leaders and higher education organizations during the last two decades (e.g., Ehrlich, 2000; Boyer, 2006; AACSCU, 2002, Kellogg, 1998; AAC&U, 2012). This renewed focus has been fueled by a decline in civic action among students that hit its peak during the 1980s (Intercollegiate Studies Institute, 2007). During this period, students were increasingly regarded as customers, and their overall levels of volunteerism and civic involvement was reduced from the activist era of the 1960s and 1970s. An emphasis on earnings—the private benefits of higher education—defined the primary value of going to college in the 1980s (Hartley, 2009). Furthermore, following significant investment in higher education in the 1960s and early 1970s, colleges and universities had increasing difficulty in explaining themselves to external audiences. Colleges were viewed as drifting in character and mission, becoming bloated and disjointed from their original public missions (Thelin, 2004). Once regarded as the answer to poverty, racism, and other social ills, higher education had come to be viewed as wasteful, overpriced, and failing to deliver on its promises (St. John & Parsons, 2004). Collectively, these factors called into question the commitment of U.S. colleges and universities in fulfilling their civic obligations.

In an attempt to reverse these trends, networks of practitioners, scholars, and higher education organizations launched dozens of initiatives aimed at promoting the democratic purposes of higher education. This agenda took hold at multiple levels to transform institutions, reshape faculty rewards, and promote civic learning and action among college students (Hartley, 2009). At the institutional level, the primary focus has been on embedding civic engagement in teaching, research, and service on campus (Furco, 2010). At the faculty level, “engaged scholarship” has emerged as priority, and emphasizes high quality community-engaged research that can be rewarded in the tenure process (Fitzgerald, Burak, & Seifer, 2010).

At the student level, “educating for democracy,” focuses on preparing students for participation in a democratic society (Hartley, 2009). This perspective is best illustrated in a recent report entitled, *A Crucible Moment: College Learning and Democracy’s Future* which gives attention to how students are educated in relation to civic competencies, knowledge, values, and collective action. The report, released at the White House in January 2012, calls on U.S. educators to “reclaim and reinvest in the fundamental civic and democratic mission of schools and of all sectors within higher education” (AAC&U, 2012, p. vi).

In considering the role of colleges in developing civic competencies, Hollander & Burack (2009) suggest that more research is needed to identify those academic and co-curricular elements that most impact long-term commitment to civic engagement. Specifically, the authors recommend that quantitative research is necessary to track individuals’ experiences and behaviors over time, analyzing how individual characteristics, program qualities, and environmental factors impact civic behaviors later in life (Hollander & Burack, 2009).

Before these connections can be made, however, more research is necessary to understand the extent to which students engage in civic behaviors while attending college, and how students might be classified in relation to these behaviors. At present, reports like *A Crucible Moment* (AAC&U, 2012), paint civic behavior in college with a broad brush, calling on colleges to prepare students to engage in a broad set of civic actions. While such reports inspire action around the civic purposes of college, they provide limited guidance for how colleges might develop competencies among diverse groups of students with unique civic dispositions.

One underlying problem is a lack of conceptual or analytic distinction around what constitutes civic activity (Walker, 2002). Adding to this quandary is a lack of understanding about how civic actions are reflected in actual behaviors among college students. This gap in understanding leads scholars and practitioners to frame civic engagement in ways that may be

disconnected from the actual experiences of college students. Consequently, it can result in the development of “one size fits all” civic-oriented programs that fail to consider differences in students’ pre-dispositions (or lack of disposition) for civic behavior.

Purpose of this study

The purpose of this study is to examine how students vary or cluster in relation to civic behaviors while attending college. In doing so, our study addresses two primary research questions. First, to what extent do students engage in civic behaviors while attending college? Second, to what extent might civically engaged students cluster by various groups or subclasses? Addressing these two foundational questions is critical for two reasons. First, as previously discussed, notions about civic engagement are at times lumped together which clouds our understanding about what constitutes civic participation, and how civic behaviors are actually expressed. In other cases, the worldviews, disciplinary perspectives, and personal experiences of higher education leaders shape discussions about intended civic behaviors among students (Westheimer and Kahne, 2004; Battistoni, 2002). Consequently, no bridge exists to tie these perspectives to actual civic behaviors students. This study aims to make these connections by comparing framings of civic participation (conceptual) versus actual civic behaviors of college students. In doing so, this study provides a foundation for studying attributes of students that may be predisposed to adopt one set of behaviors over another. Subsequently, scholars and practitioners could design customized strategies to promote civic learning and action among students with diverse dispositions and worldviews.

Second, prior research on this topic has exclusively focused on validating distinct types or dimensions of civic-related *behaviors* rather than exploring whether individuals can be profiled in relation to their observed civic behaviors. For example, past studies by Weerts,

Cabrera, and Sanford (2010) used confirmatory factor analysis to identify the underlying latent dimensions of civic behaviors in college, namely, political advocacy and volunteerism.

However, this approach is not appropriate if the purpose is to classify individuals regarding their engagement in civic behaviors. This study is the first of its kind to apply Latent Class Analysis (LCA) to investigate the potential presence of clusters to categorize civically engaged students.

Literature review

Past literature sheds light on how civic behaviors in college are shaped by a complex set of factors including family background, youth experiences, citizenship education, and value orientations embedded in these experiences. Dispositions for civic engagement emerge before individuals go to college. Studies show that many civically engaged individuals have parents who were civically engaged, acted as role models for engagement, and participated in civic activities with their children (Dunham & Bengston, 1992; Zaff, Moore, Papillo & Williams; 2003). A wealth of literature suggests that one's likelihood of becoming civically active relates to family background and formative experiences as a youth (e.g., Hanks & Eckland, 1978; Milbrath & Goel, 1977; Otto, 1976; Verba, Scholzman & Brady, 1995; Glanville, 1999).

The set of values that parents and schools pass along to students related to citizenship is critically important in understanding civic behaviors in college. Westheimer and Kahne (2004) provide insights into three framings of citizenship embedded in distinct worldviews. First, the "personally responsible citizen" emphasizes working, paying taxes, recycling, and helping in times of crisis. This orientation suggests that personal responsibility provides benefit to the individual and society as a whole. Second, the "participatory citizen frame" expands this definition, focusing on improvement efforts such as environmental clean-up or organizing a food drive (Westheimer & Kahne, 2004). Such an orientation typically frames civic engagement in

terms of charity, focusing on how citizens with resources address deficits in society (Morton, 1995). The act of brokering partnerships among entities with resources to address a problem (i.e., project model) can be understood within the participatory citizen frame (Morton, 1995).

Third, the “justice-oriented citizen” assesses structures that cause injustice, and designs strategies to facilitate systemic change (Westheimer & Kahne, 2004). Such an orientation fits within Morton’s (1995) “social change model” which emphasizes building relationships with disenfranchised groups, and creating power-neutral learning communities to address root causes to problems. The three models outlined above suggest that students may come to understand their roles as citizens in diverse ways, and ultimately act in a manner that reflects their understanding of these roles.

Civic engagement constructs can also be understood through distinct disciplinary lenses. Battistoni’s (2002) typology on civic learning illustrates how academic fields express civic themes in their curriculum. For example, “civic professionalism” emphasizes the civic traditions found in professional fields such as medicine and law. This tradition focuses on civic judgment and public problem solving. Alternatively, religious studies and philosophy programs largely focus on bringing student’s spiritual values to bear on social problems via the “social justice” frame. This frame falls within paradigms identified by Morton (1995) and Westheimer & Kahne (2004) and emphasizes collective action informed by faith traditions. Another perspective, the “public leadership” frame, stems largely from management and leadership studies, and focuses on community building, communication, and the art of collaborative leadership. Finally, the “ethic of care” frame is prevalent in women’s studies, psychology, and nursing, and emphasizes critical thinking, coalition building, and caring for the future of the public world (Battistoni, 2002).

While the work of these authors contributes to our understanding about the conceptual differences related to civic orientations, there is scant evidence connecting these frames to civic behaviors in college. One recent study by Weerts, Cabrera, and Sanford (2010) found that two distinct, but interrelated dimensions underscore civic participation in college: volunteerism and political advocacy. Their study defined volunteerism as acts of charitable service to religious organizations, schools or other educational institutions, along with other national or local organizations (Wilson & Musick, 1997). Political participation included voting, contacting officials at the federal or local level, giving campaign money, conducting campaign volunteer work, protesting or demonstrating, signing a petition, or persuading family or friends to vote on an issue (Miller 2008; Brady, Verba & Scholzman, 1995). The authors found some relationship between volunteerism and political activity in college, but concluded that such behaviors were distinctive among college students. The implications of their study was that students may adopt various civic expressions based on their own experiences and values prior to, and while in college (Weerts, Cabrera, & Sanford, 2010).

In sum, prior literature suggests that college students may express heterogeneous civic behaviors as they are exposed to different sets of family/school values, worldviews, and disciplinary traditions. However, past research offers little evidence of the extent to which civic engagement takes place in college and whether there are different types of engaged students. In the next section, we outline our data, sampling strategy, and analytic techniques for answering our two research questions.

Methodology

Data Source. In addressing our two research questions, we draw on a database of 17,167 college graduates of 268 colleges and universities from the American College Testing (ACT)

alumni datasets. For each person in the database, 313 variables representing pre-college, college, and post-college experiences and behaviors were collected through the ACT Pre-College Assessment and Alumni Outcomes Survey (AOS). The Assessment and AOS were matched by common identifiers, and thus, provide a longitudinal portrait for each respondent. The AOS was administered by participating institutions between 1993 and 2006.

Sample. We relied on three criteria to guide our sample selection within the larger database. First, the field of civic engagement is primarily focused on developing civic competencies and dispositions among undergraduate students (Jacoby, 2009; Hartley, 2009; AAC&U, 2012). Aligned with this focus, we limited our sample to include those alumni who attained a bachelor's degree only. In doing so, we limit reporting errors that may occur when alumni reflect on broader college experiences that include advanced degree programs and span multiple institutions.

Second, asking graduates to recall their college experiences many years after graduation can distort the reality of their experiences and decrease the overall accuracy of the data (Porter, 2011). Subsequently, it is preferable to collect data on student experiences soon after graduation (see Weerts, Cabrera, & Zulick, 2005). Thus, we chose to limit our sample to self-reported data from alums that graduated from college within a year of completing the survey. Leaders of a national alumni initiative called, Citizen Alum, refer to these graduates "gap" alumni, a term we adopted in this study (Citizen Alum, 2012).

A third consideration was the long timespan between the graduation years of alumni appearing in the database. Survey respondents graduated from college between 1988 and 2005, representing a seventeen-year timespan. Significant curricular changes relative to the civic engagement movement occurred during this period. To illustrate this point; in 1985 three universities launched Campus Compact with the purpose of supporting the civic roles of higher

education. By 2008, Campus Compact had grown to over 1,100 members, representing a quarter of all higher education institutions (Hartley, 2009). Recognizing the growth of the civic movement during this span, we bound our sample around a four-year period (1999-2003). Doing so captures experiences of students in a similar timeframe, offering an “apples to apples” comparison of campus environments commensurate with changes reflected in the civic movement.

Our selection criteria yielded 1,876 subjects who completed the ACT alumni survey one year upon completion of college during the 1999 and 2003 period of time (see table 1). The average gap alum is predominantly female (71.1%) and white (84.5%). She or he was raised in families whose median family income fell in the \$50,000-\$60,000 range. The average ACT composite score for this group was 22.7. And, most of the gap alumni graduated from a public four-year institution (76%).

[Table 1 about here.]

Measures of Civic Behaviors. The AOS included 8 items asking about civic-oriented behaviors that alumni reported participating in while attending college. These behaviors include involvement in organizations such as professional (PROF1ST), service (SERV1ST), environmental (ENV1ST), political (POL1ST), social (SOC1ST), cultural (CULT1ST), youth (YUTH1ST), and community (COMM1ST). Respondents were asked to indicate their level of involvement with these organizations in a four-anchor scale ranging from 1 (no involvement) to 4 (high level of involvement). During our exploratory analyses, we discovered that the distribution associated to each of those behaviors was highly skewed given the preponderance of no involvement scores. Accordingly, we collapsed the 4 anchors into two: involved (1), or not

involved (0) to reflect the bipolar distribution associated to each item.

Analytical Method. This study relies on Latent Class Analysis (LCA) to identify classes of alumni who varied in their civic participation relative to the 8 behaviors itemized in the ACT alumni survey. LCA is a statistical method for finding subtypes of related cases (latent classes) according to their observed values on a set of categorical or nominal indicators in cross-sectional data (Masyn & Nylund-Gybson, 2012; Rost, 2003). In our case, LCA leads to the identification of classes of alumni based on their self-reported participation in certain civic behaviors while in college. As such, we assume participants in the sample to be a heterogeneous population with respect to their dispositions for civic engagement. Moreover, it is assumed that class membership explains all the variance shared by the measured variables (local independence assumption). That is, all variability in the sample is explained by class membership and there is no residual covariance between indicators (Nylund, Asparouhov & Muthén, 2007; Masyn, in press; Rost, 2003).

Fitting a latent class model means estimating two types of parameters: (1) item parameters, which indicate the probabilities of individuals to endorse an item; and (2) class probability parameter, which estimates the probability of an individual to belong to a particular class (Masyn, in press; Nylund, Asparouhov & Muthén, 2007). In a more formal statistical language, in a LCA model context, participants' answers to survey items ranging from u_1 to u_8 are indicators of membership to a class c , in which each participant i belongs to a class k ($c_i = k$). The probability π_k of participants endorsing an item m is given by the proportion of participants i in class k , and the conditional probability that an individual would endorse item m given that she or he belongs to a class k , $\omega_{m/k}$:

$$\Pr(u_1, \dots, u_8) = \sum_{k=1}^K \pi_k \cdot \prod_{m=1}^8 \omega_{m|k}$$

The estimated value of these parameters varies depending on the number of classes.

Model Building. Before building a latent class model, data should be checked to verify it is appropriate for such type of analysis. Masyn and Nylund-Gibson (2012) note that some necessary conditions are to be met when conducting LCA. The number of items should not exceed 10 and the sample should be large enough. In addition the missing data pattern should be at least one of missing at random (MAR). All our analyses were conducted based on SPSS 19, Stata 12.1 and Mplus 6.1

According to Masyn (in press), choosing the number of clusters representative of the behaviors should follow a step-wise process. Masyn recommends starting by fitting a 1-class model and then incrementing the number of classes by 1 at a time. The chosen model needs to fit the data (e.g., it has to have several good fit indices) and represent an improvement of fit in relation to a previous class model of $k-1$ classes. There are three groups of fit indices to assist in deciding the number of classes; namely: absolute fit indexes; relative fit indexes, and incremental fit. The likelihood ratio chi-square goodness of fit test, denoted as χ^2_{LR} belongs to the first group. When the cluster model fits the data well the p -value associated to this statistics is greater than 0.05. The BIC, AIC, $BF_{k, k-1}$ and the cmP_k correspond to the second group. For the BIC and AIC, the best model is the one associated with smaller values. A $BF_{k, k-1}$ with a value of less than .01 provides strong support for the corresponding model *vis- a-vis* the previous class model. In the case of the cmP_k , values close to one show support for the corresponding model in lieu of the group of models under consideration. Differences in chi-squares can also be used to judge changes in incremental fit of one model (say 2-class) in relation to an immediate preceding one

(say 1-class). Asparouhov and Muthén (2012) caution against relying on simple differences of χ^2_{LR} to appraise incremental fit in testing a k-1 versus k class model; they note such differences are not distributed as chi-square. Instead they recommend using the adjusted $\chi^2_{LMR-LRT}$ obtained by a bootstrapping procedure.

Model Diagnostics. After the number of classes has been determined, the quality of a model can be assessed by two main criteria. First, the obtained K classes should be homogeneous with respect to the m items that characterize them. This is, each item m should have either a high probability ($\omega_{m/k} > .7$), or a very low probability of belonging to a cluster k ($\omega_{m/k} < .3$). Second, clusters need to be distinct of one another. In other words, there has to be a high degree of class separation of clusters k and j with respect to items, which is given by the item endorsement odds ratio ($OR_{m/kj} > 5$). This odds ratio can be defined as the odds of endorsement of item m in class j to the odds of endorsement of item m in class k .

Limitations. We note four limitations of the data used for our analysis. First, since the items were self-reported, there is a potential for bias among participants in reporting civic behaviors due to recall problems and social desirability. Respondents may have overestimated their engagement in pro-social behaviors such as volunteerism as is typically the case in questionnaires (Porter, 2011). Second, the sets of civic-oriented behaviors asked in the ACT survey were somewhat vague, leaving room for broad interpretation among respondents. Specifically, the survey asked respondents to indicate levels of involvement in broad types of organizations (e.g., environmental, political, community, etc.) rather than breaking behaviors down into a smaller set of civic-oriented activities (e.g., volunteering at a food shelter, canvassing for a political campaign, etc.). Third, as with most alumni surveys, respondents represent a small sample of the universe of college graduates. With a more heterogeneous sample, the class type configurations presented in this study might be altered. Finally, our study only provides a

snapshot of graduates between 1999 and 2003, and does not account for generational, political, and curricular changes in high school and college that may have shaped civic action in more recent years.

Results

Our study posed two key questions regarding civic behaviors in college. The first question is, “To what extent do students engage in civic behaviors while attending college?” In response to this question, our study found that many alumni reported being engaged in college, but such behaviors were not clearly civic in nature. As illustrated in table 2, more than two-thirds of graduates were most likely to be active in social and professional organizations in college.

[Table 2 about here.]

At the opposite end, graduates were much less likely to report being involved in political and environmental organizations while in college. Only a third of the gap alumni in the study reported participating in such activities during their undergraduate education. In reporting this finding, we recognize that civic participation related to politics is fluid, and ebbs and flows related to election cycles.

Finally, we note a mid-range level of participation in civic organizations unrelated to non-political or environmental causes. On the higher end, 61 percent of graduates reported being involved in service and community organizations, while 45-47 percent of alumni were involved in youth and cultural organizations in college. Overall, our findings suggest that a significant number of students are engaged in various organizations in college, but that fewer identified them as being civic in nature. Also noteworthy is the fact that civic-oriented activities were

predominantly non-political and service-oriented (community, service, youth, culture), and less likely political or environmentally oriented (political/environmental).

One limitation of analyzing frequencies of behaviors is that it fails to consider the possibility that alumni may have engaged in more than one type of civic-related behavior. Frequencies merely provide a one-dimensional picture about the level of activity among students as a group, without considering how individual students fit into this overall picture. In addressing these limitations, the next section presents results of our latent class analysis that examines ways in which students cluster in relationship to these civic behaviors.

Our second research question asked, “To what extent might civically engaged students cluster by various groups or subclasses?” In addressing this question, we first conducted an analysis examining whether our data set met the required conditions suggested by Masyn & Nylund-Gibson (2012) in conducting LCA. Indeed, our data met necessary conditions since our sample is close to 2,000 subjects and explores 8 behaviors. Moreover, the hypothesis of missing completely at random was supported ($\chi^2_{1607} = 852.1, p = 1.0$). In other words, the probability of missing data on each of the 8 behaviors was unrelated to the other measures and unrelated to its own values (Enders, 2010).

Table 3 reports the results of testing five alternative classes of civic engagement. Following Masyn’s (in press) recommendations, we began with a one-class model as the baseline one. This model corresponds to the hypothesis that there is no heterogeneity with respect to the 8 behaviors while attending college. As we added alternative representations of latent classes, we examined whether absolute and relative fit indexes lent support for the corresponding model and whether the corresponding model significantly increased the fit as evidenced by the adjusted differences in $\chi^2_{LMR-LRT}$ (see last column in table 3). Judging in terms of χ^2_{LR} , model 1 poorly fits the data and has BIC and AIC values greater than those associated with the 2-class model;

furthermore, the difference in the $\chi^2_{\text{LMR-LRT}}$ favors the 2-class model over the 1-class model. We ended our estimation process at the point when the model under consideration degraded in relation a previous well-fitting model.

[Insert Table 3 about here.]

We found support for a latent class model consisting of 4-classes relative to the 8 civic behaviors reported by alumni. The 4-classes model has the best indicators of fit in relation to alternative groupings of individuals (see table 3). As shown in the fourth column in table 3, there are only two models that fit the data: 4-class and 5-classes model. However, compared to the 5-classes model, the 4-class model has the lowest AIC and BIC indices across all five alternative models. As illustrated in the last column of table 3, the 5-class model represents a significant worsening of the model testing.

In addition of meeting the fit criterion, each of the four-latent clusters has a high degree of consistency in that it is identifiable by a high probability of engaging in civic behaviors (see tables 4 & 5). Finally, the 4-class model shows that each cluster significantly discriminates in relation to one another (see table 6). Collectively, this evidence lends strong support for the 4-class model of civic behaviors in college.

[Insert Tables 4,5 & 6 about here.]

Figure 1 illustrates how alumni in our sample grouped around the 4-class model of civic behaviors in college. Class 1 represents a category of alumni who “did it all” as college students. This group represents 30 percent of the sample that were highly engaged in multiple civic and

social behaviors in college. We label the first group, “Eagles,” as “high flying” students who are on the forefront of leadership, policy-making, and service that has broad impact on and off campus. This is only class of students in which there is a strong probability to be engaged in political, environmental, and non-political organizations (service, community, youth, cultural).

[Insert Figure 1 about here.]

Class 2 alums are those who reported being exclusively involved with social organizations with no clear connection to civic purposes. This small group represents only 6 percent of our sample. We refer to this small group as playful “Otters” which represent alumni that were chiefly social in their orientation as college students. Also, this latent class shows a strong predisposition to avoid engagement in community activities and organizations during college (see table 4 & figure1).

Class 3 alumni represent the largest cross-section of the sample (39 percent) and were most distinctive in their civic involvement. As students, these alums were often involved in professional, service, social, and community-oriented organizations. At the same time, they were *unlikely* to be involved in political or environmentally oriented organizations (see table 4 & figure 1). We call this group, “Honeybees” representing students that were likely to be involved with community-based, “boots on the ground,” non-political initiatives.

Finally, Class 4 alumni are those who reported being largely uninvolved with any of the activities or organizations reported in the ACT survey. We term these alumni as “Koalas” representing those who were primarily spectators in college. This class of students tended to avoid participation in political activities and organizations the most (see table 4 & figure 1).

Table 7 depicts each of the four classes and corresponding civic and non-civic behaviors relative to these classes. The table also provides examples of organizations and activities that may be representative of these groups. We acknowledge that more research is necessary to match specific groups and clubs to actual civic orientations of classes appearing in this study.

[Insert Table 7 about here.]

Discussion

In answering our first research question, the picture emerging from a descriptive profile of gap alum is one of apathy towards altruism while displaying strong commitment in pursuing activities that are most connected to career development and socialization needs. Nearly 70 percent of our sample reported being involved in these social and professional organizations. Conversely, only one out of three gap alumni reported having participated in political and environmental activities during her or his undergraduate experience. This picture of the “civically disengaged college student” lends strength to prior studies suggesting that students during the 1990s and 2000s were more apathetic and cynical about politics compared to previous generations (Longo & Meyer, 2006).

However, relying on an analysis of frequencies alone distorts the larger picture of civic engagement in college. Specifically, LCA analyses reveal a robust portrait of civic engagement in college not apparent from our examination of frequencies. The LCA reveals that swirling beneath those frequencies are 4 subtypes of clusters of students. Specifically, our study suggests that civic-oriented students fall into two distinct categories comprising nearly 70 percent of our sample. Distinguishing between these groups is the propensity to be involved in political and environmental organizations. Most prominently, the “Eagles,” were active in a full range of

civic and social activities that included political and environmental activism. Another group of students were the “Honeybees” who separated themselves from political and environmentally-oriented organizations. Our study suggests that both groups are civic in nature, but dispositions for civic engagement are expressed in different ways. Consequently, we conclude that a “one-size-fits-all” broad description of civically engaged students is not possible.

Our findings relative to the Eagles and Honeybees are intriguing as it relates to past literature related to civic expression among students. In particular, research suggests that some youth may lean toward volunteerism as a form of civic expression as an alternative to political participation. For example, in their study of students enrolled in community service programs, Newmann and Rutter (1983) measured whether service affected how students’ anticipated their future participation in politics. Interestingly, the authors found that service-learning students’ measure of political efficacy declined while the comparison group measures increased. The authors concluded that some students may view service-learning as an acceptable way to serve society without engaging in the conflict associated with politics. Other studies have mirrored these findings, suggesting that those who primarily volunteered in college are less likely to be involved in politics after college (Denson et al., 2005; Weerts, Cabrera, & Sanford, 2010). The current study provides some support for these past studies, and indicates that students may group in relationship to political/non-political organizations.

Another important finding is that the two groupings of civically-oriented students (Eagles and Honeybees) indirectly reflect the typologies discussed in the literature review. In this respect our findings lend support to the notion that civic behaviors in college may encompass a wide range of pro-social activities as expressed in the participatory citizen frame (Westheimer & Kahne, 2004). Considering the clustering of behaviors, Honeybees appear to be more inclined toward the “public leadership” frame which focuses on community building, communication,

and the art of collaborative leadership. As non-political creatures, Honeybees primarily expend their energy on service and volunteerism which may free them from conflict associated with politics. Meanwhile, Eagles' civic interests are expanded to include a "social change model" which focuses on addressing larger systemic problems through the political process (Morton, 1995). Political participation and environmental activism fall more closely in line with the systemic change paradigm, indicating that Eagles are more inclined to focus on policy change alongside their service efforts.

Finally, an important finding is that alumni who did not participate in civic-oriented activities in college also fall into two groups. Otters represent a small group of socially-focused students (6 percent) while Koalas were completely disengaged from social and civic involvement of all types (25 percent). These nuances suggest that non-civically active students also have differing orientations, backgrounds, barriers, and predispositions that might explain their lack of civic or overall engagement in college.

Conclusions and implications for research and practice

This study makes significant conceptual and methodological contributions to the literature on civic learning and engagement in college. While prior research has exclusively focused on *variables* representative of civic behavior, this study illustrates how *people* group in relation to civic behaviors. We find that graduates fall into distinct classes ranging from being highly engaged as students (Eagles) to completely disengaged (Koalas). In the middle, there are subtypes of students who are civically active, but not political (Honeybees) while another subtype is exclusively social (Otters).

Our study has important implications for the civic engagement movement across the country. In particular, the framework for civic learning and action as described in *A Crucible*

Moment (AAC&U, 2012) focuses on developing knowledge, skills, values and collective action for civic engagement across all students. Our study suggests that a more advanced framework must be developed to address the unique dispositions of Eagles, Honeybees, Otters, and Koalas that emerged in our study of gap alumni. For example, curricular and co-curricular experiences might be developed to help Eagles and Honeybees meet their full potential while other initiatives might expose Otters and Koalas to civic opportunities. In short, segmentation strategies could help university administrators and faculty design customized strategies to develop knowledge, skills, values, and collective action among diverse groups of students.

Findings from this study pave the way for additional research on attributes of students that vary by civic behaviors in college. Key questions include, “What explains why some students emerge as Eagles, Honeybees, Otters, and Koalas? What is the impact of socio-economic background, high school experiences, academic preparation, and campus environments in predicting membership in one of these four groups?” Addressing the questions could assist scholars and practitioners in creating unique opportunities for civic learning and engagement among diverse sets of students.

This study has other potential applications when considering groups of alumni who may stay engaged with their alma mater after graduation. With additional research, alumni relations officers could begin to identify and categorize current students who might eventually play roles as volunteers and advocates for higher education. For example, alumni “Eagles” might be tapped to act as advisory board members and legislative advocates (political leadership) while “Honeybees” might be asked to lead regional clubs and convene scholarship drives to support future students (service-oriented). More research is necessary to understand whether these student civic categories hold after graduation.

We conclude by suggesting that our study makes an important methodological contribution to the field of civic learning and action. In particular, our use of LCA shed light on distortions that emerge when relying solely on variable-centered or one-dimensional analyses related to civic engagement in college. Had we relied on examining frequencies alone, our analysis would have led us to conclude that civic knowledge, values, and competencies may not be at the core of the collegiate experience. Instead, professional and social interests would have been discussed as most salient. In employing LCA, we see a more robust portrait about civic behaviors in college, suggesting that many students with professional and social interests also participate in civic activities. These nuances yield markedly different interpretations of our study. As such, we recommend LCA as an important tool for future studies that examine behavioral patterns among college students.

In conclusion, this study underscores the merit of exploring nuanced understandings of civic participation in college, providing empirical evidence about distinctions among students engaged in various civic behaviors. Our study provides context into national discussions about civic learning in college, providing evidence about current dispositions and orientation for civic action among diverse groups of students. In doing so, this study begins to create a roadmap for leaders in advancing the civic movement in higher education.

While this study provides important progress in forwarding the civic agenda, a few limitations of the study are worth restating. As discussed previously, one key challenge is that civic participation related to politics is fluid, and ebbs and flows related to generational changes. For example, research summarized in 2006 suggested that students were more apathetic and cynical about politics compared to previous generations (Longo & Meyer, 2006). Not long after, a surge of political participation among college students took place during the 2008 presidential campaign for President Barack Obama (Chronicle of Higher Education, 2008). This example

illustrates that the size and composition of students classified as Eagles, Honeybees, Otters, and Koalas might vary based on changing national and generational contexts. Despite these limitations, the study provides some baseline categories to better understand how students group in relation to various civic behaviors, providing a foundation for future research on this important topic.

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Table 1. Sample

Graduation Year	*Cohort 1: “Gap Alumni”
1999	1058
2000	337
2001	117
2002	202
2003	162
	N= 1,876

*Survey taken 1 year after graduation, bachelor degree holders only

Table 2. Frequency in engagement on 8 civic engagement behaviors while attending college

Involvement during college with:	Total Sample (n =1876)	
	<i>f</i>	%
1. Professional activities/organizations	1237	.68
2. Service activities/organizations	1146	.61
3. Environmental activities/organizations	630	.35
4. Political activities/organizations	636	.34
5. Social activities/organizations	1314	.72
6. Cultural activities/organizations	846	.47
7. Youth activities/organizations	814	.45
8. Community activities/organizations	1106	.61

Table 3. Fit and modification fit indices for alternative cluster models of 8 civic engagement behaviors while attending college

Model	LL	npar	χ^2_{LR} (df) (p-value)	BIC	AIC	$BF_{k,k-1}$	cmP_k	Adj $\chi^2_{LMR-LRT}$ Ho:k classes vs. H1 k+1 classes (df) (p-value)
1-class	-9461.5	8	1135.7 (246) (p < .001)	18983.1	18938.9	-	0.000	-
2-classes	-8127.3	17	640 (233) (p < .001)	16382.3	16288.5	<.01	0.000	2668.5 (9) (p < .001)
3-classes	-7927.5	26	312.4 (225) (p < .001)	16050.6	15907.1	38.5	0.025	399.4 (9) (p < .001)
4-classes	-7890.1	35	241.6 (217) (p = .121)	16043.3	15850.1	<.01	0.975	74.9 (9) (p < .001)
5-classes	-7875.2	44	233.2 (208) (p = 110)	16102.8	15859.9	-	0.000	8.1 (9) (p = 1.0)

Table 4. Probabilities of engagement in civic behaviors within classes (homogeneity)

Civic Engagement Behavior	Class 1 (30.2%)	Class 2 (6.2%)	Class 3 (38.9%)	Class 4 (24.7%)
1. Professional	0.874	0.408	0.747	0.459
2. Service	0.943	0.413	0.768	0.146
3. Environmental	0.820	0.421	0.160	0.022
4. Political	0.751	0.502	0.208	0.020
5. Social	0.993	0.896	0.814	0.208
6. Cultural	0.929	0.683	0.325	0.045
7. Youth	0.793	0.182	0.485	0.075
8. Community	0.972	0.324	0.715	0.112

Item probabilities of $>.70$ or $<.3$ are bolded to indicate a high degree of class homogeneity. In parenthesis the percentage of GAP alumni within the class is reported.

Table 5. Average Latent Class Probabilities for the Most Likely Latent Class Membership (Row) by Latent Class (Column)

	Class-1	Class-2	Class-3	Class-4
Class-1	0.887	0.027	0.085	0.000
Class-2	0.035	0.693	0.210	0.062
Class-3	0.081	0.073	0.788	0.058
Class-4	0.000	0.021	0.079	0.899

Table 6. Degree of class separation (discrimination)

Civic Engagement Behavior	Class 1 vs. 2	Class 1 vs. 3	Class 1 vs. 4	Class 2 vs. 3	Class 2 vs. 4	Class 3 vs. 4
1. Professional	10.04	2.34	8.17	0.23	0.81	3.50
2. Service	23.42	4.99	95.93	0.21	4.10	19.23
3. Environmental	6.27	24.03	202.63	3.83	32.29	8.43
4. Political	2.99	11.49	150.68	3.84	50.42	13.12
5. Social	16.67	32.88	545.11	1.97	32.71	16.58
6. Cultural	6.09	27.28	277.15	4.48	45.50	10.16
7. Youth	17.22	4.08	47.10	0.24	2.74	11.54
8. Community	73.23	13.97	277.22	0.91	3.79	19.84

Odds ratios >5 or <.2 are bolded to signify a high degree of class separation

Table 7. Student engagement in college corresponding to civic orientations

Class	Behavior	Civic orientations/examples
<u>Class 1:</u> EAGLES	Social Service Community Political Professional Youth Service Environment	Involved in a robust set of civic-oriented activities that demonstrate a high level of involvement in campus/off-campus programs (leadership, policymaking, etc.) <u>Examples:</u> Student Government, Campus Greening Committee, Chemistry Society, Young Democrats/Republicans.
<u>Class 2:</u> OTTERS	Social	Activities are primarily social, not clearly connected to civic purposes. <u>Examples:</u> Film Festival Club, Dance Society, Sailing Club
<u>Class 3:</u> HONEYBEES	Professional Service Social Community (non-political or environmental)	Activities are primarily professional, social-fraternal, and provide value to the larger community. Behaviors are not political or environmentally cause-related. <u>Example:</u> Business/service-oriented sorority or fraternity (e.g., Lead charitable/service event to benefit local chapter of the Special Olympics)
<u>Class 4:</u> KOALAS	None reported	No behaviors were reported related to the dimensions expressed above. The alumnus was not involved in civic or social organizations.

Figure 1. Civic engagement probability plot for 4 classes

