

Profiles of Civic Engagement across Educational Transitions: Stability and Change

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Abstract

Young people's civic engagement over the transition to adulthood is often sporadic, interspersed with life transitions, and patterned differently across people. Understanding covariates of patterns of civic engagement, and changes in these patterns, could enhance efforts to promote young adults' civic engagement. Using two time points of data from the Young Entrepreneurs Study ($N=2,364$; 61.9% female; 60.9% European American), we identified four profiles of civic engagement: *Low Initiative*, *Moderately Involved*, *Highly Involved*, and *Organizers*. Profile membership was moderately stable, and stability rates were similar regardless of changes in participants' education status. Participants' initial levels of contribution ideology were related to stability in profile membership; participants with higher initial levels of contribution ideology were more likely to be classified in the *Highly Involved* profile at both waves. Implications for future research and applications are discussed.

Keywords

Civic engagement, educational transitions, contribution ideology, mixture modeling

Civic engagement during late adolescence and young adulthood is associated with positive outcomes, such as strengthened community orientation and commitments, and increased awareness of social and economic inequality (Colby, Beaumont, Ehrlich, & Corngold, 2007). However, civic participation varies across this portion of the life span and is often sporadic (Finlay, Wray-Lake, & Flanagan, 2010). To understand and promote civic involvement and its benefits, factors related to these changes in participation should be investigated.

Consistent with life course theory (Elder, Shanaham, & Jennings, in press), which maintains that changes in one area of life often are associated with changes in other areas, one explanation for these changing patterns is that youth are also experiencing life transitions, such as graduating from college, across the transition to adulthood. Applied to civic involvement, life course theory suggests that civic engagement may not be fully or consistently manifested until young people move through such transitions and settle into adult roles. Some young people, however, may maintain their civic

engagement across life transitions (Finlay et al., 2010); these young people may have particular characteristics or contextual resources that contribute to these stable patterns. Understanding these characteristics, and if and how life transitions may be associated with changes in civic engagement, may enable practitioners to enhance civic involvement.

To date, however, trends in civic engagement from late adolescence to young adulthood have primarily been investigated using variable-centered analyses (e.g., multiple regression, latent growth curve modeling), which produce average estimates of change across many participants (but, see Finlay, Flanagan, & Wray-Lake, 2011, for an exception). These methods cannot identify groups of young people who show particular patterns of change or constancy (whether in mean level or in type of engagement; Lerner, 2002; Molenaar & Nesselroade, in press; Nesselroade, 1988) in their civic engagement. Mixture modeling, however, can aid in identifying potential subgroups of young people based on their level and type of involvement, and if and how these levels and types remain stable across life transitions. Here, we aimed to identify whether such subgroups existed among a sample of current and former college students in the United States, and whether

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individuals were classified into the same subgroup across two data collection points. We also assessed whether a life transition – change in education status – was related to change in subgroup membership. Finally, we investigated whether one individual characteristic – contribution ideology (Eyler, Giles, & Braxton, 1997; Oesterle, Johnson, & Mortimer, 2004) – was related to stability or change in subgroup membership.

Civic Engagement across the Transition to Adulthood

Theoretical and empirical work on civic engagement suggests that it can take many forms in late adolescence and young adulthood. For example, Finlay et al. (2011), in a study of AmeriCorps members, identified three patterns of civic participation: inactive, voting involved, and highly committed. Given these and other findings (e.g., Voight & Torney-Purta, 2013; Zaff, Boyd, Li, Lerner, & Lerner, 2010), we modeled civic engagement using a latent profile analysis (LPA) approach, rather than simply calculating an average score across participation items. LPA identifies subgroups of participants whose patterns of engagement (e.g., volunteering, organizing people around a cause) – called profiles – are similar to each other but different from the other groups. For example, one group may volunteer regularly but not organize people around a cause, whereas another group may show the opposite pattern. LPA preserves these qualitative differences in type of participation, and thus provides an advantage over the use of aggregate participation scores.

In the current study, we investigated profiles of civic engagement using five indicators: volunteering, mentoring/peer advising, acting in leadership roles in organizations, starting clubs or organizations, and organizing people around a cause. These indicators were included in the study from which we gathered our data (the Young Entrepreneurs Study by Geldhof, Weiner, Agans, Mueller, & Lerner, 2014; Lerner & Damon, 2012; described in greater detail in the method section) because they represented common forms of civic engagement among young people (e.g., Zaff et al., 2010) and were from existing instruments with good psychometric properties that had been used in large-scale studies of adolescents (i.e., the Profiles of Student Life-Attitudes and Behaviors Survey; Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998; the Teen Assessment Project Survey Question; Bank, Small, & Rodgers, 1995). These items represented not only

different forms of participation (e.g., volunteering is different from acting in a leadership role) but also different levels of initiative (e.g., starting a club and organizing people around a cause require more initiative than volunteering or mentoring, whereas acting in a leadership role falls somewhere between). Thus, the combination of these items could result in qualitatively different patterns of participation.

Regardless of the type of engagement being considered, prior research suggests that, on average, participation is not stable across the transition to adulthood, regardless of whether mean-level or rank-order stability is being considered (e.g., Lerner, 2002; Molenaar & Nesselrode, in press; Nesselrode, 1988). Using data from the National Education Longitudinal Study of 1988, Planty, Bozick, and Regnier (2006) observed that rates of volunteerism (i.e., mean level stability) dropped from 43% to 24% between ages 18 and 20, but this decline partially reversed through the later 20s (to 30%). Similarly, Finlay et al. (2011) found that people who were inactive in their early 20s began voting and other forms of civic participation by their early 30s.

Both sets of findings are consistent with the life course development idea that, across ontogeny, people change across time and place (Elder et al., in press). Moreover, Finlay and colleagues' study (2011) is one of the few to address profile stability, that is, a change in the type or pattern of young people's involvement (e.g., from participating in low-initiative activities like volunteering to engaging in higher-initiative activities such as organizing people around a cause). In the current study, we also investigated changes in profile stability, using latent transition analysis (LTA; described more fully in the method section).

Factors Related to Civic Engagement across the Transition to Adulthood

Although civic participation tends to decrease over the years in which many young adults are enrolled in higher education, school attendance may buffer against some of this decline. Being embedded in a social institution such as a college or university is associated with increased civic engagement among young adults (Flanagan & Levine, 2010), and higher levels of education are consistently associated with young adults' civic engagement (Syvertsen, Wray-Lake, Flanagan, Wayne Osgood, & Briddell, 2011). Thus, we might expect a decrease in engagement among some young adults

when they leave higher education, before a potential increase once they settle into adult roles.

Even among young adults with access to higher education, however, we would expect to find variation in civic participation. Some young adults may be disengaged while in college and remain so even after they graduate, whereas others may be highly engaged the entire time.

Individuals who have prosocial orientations and value civic participation are more likely to be civically engaged than those who do not value such activities (Eyler et al., 1997). Less is known, however, about how these values are related to changes in, or maintenance of, patterns of civic engagement (i.e., profile stability) across potentially disruptive life transitions. Here, again, life-course concepts might warrant the expectation of change across such life events (Elder et al., in press), as would other theoretical models of the role of non-normative events on life-span development (e.g., Baltes, Lindenberger, & Staudinger, 2006) or of processes linking individuals to the ecology of human development (e.g., Bronfenbrenner & Morris, 2006). Thus, we examined whether ideological values were associated with stability or change in civic engagement across youth transitions into and out of higher education contexts.

Contribution ideology is the extent to which contribution (to self, family, community, and society) is an important facet of participants' beliefs. It represents a value orientation, or the importance to individuals of engaging in contribution-related behaviors. Developing an ideology enables youth to organize the myriad of choices of ways to contribute to themselves and others (Zaff, Hart, Flanagan, Youniss, & Levine, 2010). An individuals' beliefs surrounding their ability or interest in engaging in civic activities (e.g., voting and volunteering) may be an important aspect of their decision to participate in activities that contribute to themselves and their communities (Hart, Donnelly, Youniss, & Atkins, 2007).

The Present Study

This study had three aims. First, we investigated whether profiles of participation could be identified based on civic engagement patterns and whether similar profiles were obtained at two waves of data collection. Based on prior research (e.g., Finlay et al., 2011), we expected to find several configurations of engagement; that is, not everyone who showed *any* involvement

would show the same *type* of involvement. Second, we investigated whether participants were classified in the same profile across waves. We hypothesized, given prior research and a life course perspective (e.g., Elder et al., in press), that many participants would show such constancy across time and place (and that this change would be related, in part, to life transitions, as reflected in our third set of analyses). Third, we examined whether changes in civic engagement profile membership were related to education status changes, and whether these transitions were more or less stable depending on participants' levels of contribution ideology. We hypothesized that profile membership would be less stable among participants who made education status transitions (e.g., Elder et al., in press), but that this decrease in stability might be offset by higher contribution ideology (e.g., Eyler et al., 1997).

Method

Participants

We used data from the Young Entrepreneurs Study (YES) (Geldhof et al., 2014; Lerner & Damon, 2012), a three-wave mixed-method study directed toward understanding career development and other characteristics among a sample of current and former college students from across the United States. The present study uses quantitative data from 2,364 participants (61.9% female, 60.9% European American) who participated in both the second and third waves of data collection. We were not able to use the first wave as the data about civic engagement were limited. The mean age was 22 ($SD=1.7$) and 23 ($SD=1.7$) years at Waves 2 and 3, respectively. Participants self-reported their economic background; 6.3% reported "Lower class," 30.8% "Lower-middle class," 52.2% "Upper-middle class," 3.5% "Upper class," and 7.2% did not reply.

Procedure

We originally (at Wave 1) recruited participants from 50 universities across New England, West Coast, and the Midwest regions of the United States by contacting professors, administrators, and student organization leaders and asking them to circulate a recruitment email. Participants who provided their contact information were re-contacted approximately one year after completing the initial survey, and 2,169 of these participants also completed a Wave 2 survey. To account

for attrition between Waves 1 and 2 and maintain our desired sample size, we recruited additional participants at Wave 2 using the same recruitment methods previously described. These strategies combined resulted in a total sample size of 3,905 participants (55 % longitudinal) at Wave 2. At Wave 3 we re-contacted all of the individuals who had participated during the previous two waves. Approximately 60% of participants who had participated at Wave 2 ($N = 2,364$) also completed a Wave 3 survey and provided enough detail that we could match them to their previous survey responses, and we used the data from that set of participants for the present study (regardless of whether they had originally entered the sample at Wave 1 or Wave 2). Thus, our sample does not represent an exact subsample of the Wave 1 participants.

Measures

Profiles of civic engagement. We used five items as indicators of the civic engagement profiles. Three items were from, or adapted from, the Contribution-Action scale used in the 4-H Study of Positive Youth Development (PYD; e.g., Lerner et al., 2005), and the remaining two were created for YES. The items were: 1. how often participants volunteered their time; 2. how often they participated in mentoring or peer advising; 3. how often they acted in leadership roles in organizations (these three had response options from 0 = *Never* to 4 = *Very Often*); 4. the number of times participants reported having started a club or organization; and 5. the number of times participants reported having organized other people around a cause (these two had response options from 0 = *Never* to 4 = *Five or More Times*).

Contribution ideology. To index civic orientations at Wave 2, we used six items from the 4-H Study of PYD (e.g., Lerner et al., 2005) Contribution Ideology scale. Four items asked participants to rate their agreement with statements: (a) "I often think about doing things so that people in the future can have things better;" (b) "it is important to me to contribute to my community and society;" (c) "it's not really my problem if my neighbors are in trouble and need help" (reverse-coded), and (d) "if I had to choose between helping to raise money for a neighborhood project and enjoying my own free time, I'd keep my freedom" (reverse coded), with response options of 1 = *Never* to 5 = *Very Often*. The other two questions asked participants to rate their future chances of (a) being involved in community service and (b) helping other people, with response options from 1 = *Very low* to 5 = *Very high*. We used a composite score of the

six items as a manifest variable in our analyses. Scores on the six items showed acceptable internal consistency reliability, with a Cronbach's alpha of .80.

Education status changes. We created two categorical variables, one at each wave, to indicate participants' education status (out of school, in a bachelor's-level program or below, or in a graduate program). We then cross-tabulated these variables to create a third, which represented the nature of participants' educational change between waves (e.g., stayed in bachelor's level program, went from out of school to enrolled in graduate program). Finally, we made a dichotomous change variable, which indicated whether participants had experienced any educational change between waves (0 = *No Transition*, 1 = *Transition*), regardless of type. Twenty six percent of participants reported an education status change between waves.

Analysis Plan

First, we used LPA to investigate whether, and how many, profiles of civic engagement could be identified. LPA is a mixture modeling technique analogous to latent class analysis (LCA; Collins & Lanza, 2010), except the indicators of the latent profiles are continuous rather than categorical. The aim is to identify subgroups of individuals who are similar to each other on a specific group of variables (i.e., indicators of civic engagement) and different from individuals in other subgroups (Muthén & Muthén, 2000). We used the five items specified above as indicators of the latent profiles of civic engagement at both Wave 2 and Wave 3. Following the recommendations of McLachlan and Peel (2000), we allowed the items to correlate within profiles (i.e., a multivariate normal mixture model).

The LPA procedure involves testing models with varying numbers of profiles and comparing fit indices, as well as theoretical interpretability, to decide on the number that provides the best fit to the data. The most commonly used statistical indices include information criteria (e.g., the Bayesian Information Criterion [BIC]; Schwarz, 1978), the bootstrap likelihood ratio test (BLRT; McLachlan & Peel, 2001), and the Lo-Mendell-Rubin likelihood test (LMR; Lo, Mendell, & Rubin, 2001). In simulation research (Nylund, Asparouhov, & Muthén, 2007), the BIC and BLRT were the most accurate in suggesting the appropriate number of classes. We thus gave particular attention to the BIC, but we were unable to use the BLRT because it is not available when using mixture modeling in conjunction with TYPE = COMPLEX. We also examined the inter-

pretability of each model, including the prevalence of the profiles, the response patterns of each profile, and the profile's correspondence with theoretical expectations.

Second, we investigated characteristics of profile membership. To obtain more descriptive information about the members of each profile, we tested for differences in demographic variables (socioeconomic status, racial ethnic identification, gender, and age). We conducted these analyses by saving each individual's most likely latent class membership at Wave 2; we then conducted chi-square tests and analyses of variance using class membership as the grouping variable. To investigate our hypotheses regarding whether education status and contribution-related ideology predicted Wave 2 profile membership, we used the MPlus three-step procedure (Asparouhov & Muthén, 2013), which allows researchers to examine the relations between the profile and other variables independently (i.e., without including these other variables in the estimation of the profile model itself), while still incorporating classification uncertainty (i.e., measurement error). For the three-category education status variable (out of school, bachelor's level or below, graduate), we created two dummy variables, with "enrolled in bachelor's program or lower" as the reference category. Thus, our first dummy variable compared unenrolled students with bachelor's or below students, and the second compared graduate students with bachelor's or below students. Using these dummy variables to predict profile membership is similar to a multinomial logistic regression.

Third, we used latent transition analyses (LTA) to investigate profile membership across waves. LTA provides information about how profile composition changes (e.g., whether profiles become more or less numerous and whether new profiles emerge) and how likely participants are to make transitions among the profiles (e.g., whether one type of transition is more probable than others) between waves. Finally, we explored whether participants' probability of transitioning between profiles differed based on whether their education status had changed and on their level of contribution ideology at Wave 2. To investigate how education status changes were related to profile transitions, we used the KNOWNCLASS option in MPlus, which retains the original LTA model but produces a transition probability table for each value of the covariate. This procedure only incorporates binary variables, however; therefore, we used the dichotomous variable of whether participants had experienced any educational change between waves (regardless of the type).

Our final analyses investigated whether participants' likelihood of profile transitions differed based on their level of contribution ideology at Wave 2. For example, was membership in the *Highly Involved* profile more stable for participants with high initial levels of contribution ideology? To do so, we used the MPlus LTA calculator, which provides transition matrices at researcher-specified levels of the continuous covariate (e.g., the sample mean).

We conducted all analyses using MPlus Version 7.1 (Muthén & Muthén, 2013). Because we recruited participants from colleges and universities, we considered our data to be nested. To account for this clustering, we conducted all analyses using the TYPE = COMPLEX specification and the schools from which the participants were recruited as the clustering variable.

Results

Latent Profiles of Civic Engagement

We used LPA to investigate if profiles of civic engagement could be identified and, if so, how many were appropriate. Table 1 shows fit information for models with two through five profiles at each wave. We decided which number of profiles to choose based on several criteria. First, the profiles with the lowest values for the information criteria (AIC, BIC, and the Sample-size adjusted BIC [SaBIC]), along with the highest entropy, were preferred. In addition, the *p*-value of the LMR test showed whether a given number of profiles (e.g., three)

Table 1
Model Fit Statistics for Multivariate Normal Latent Profile Models with two Through five Profiles of Civic Engagement

No. Profiles	Wave 2 model fit statistics				
	Entropy	AIC	BIC	SaBIC	LMR
Two	0.938	32999	33204	33090	0.0014
Three	0.841	32563	32860	32695	0.2105
Four	0.847	32308	32696	32480	0.5265
Five	0.924	31827	32307	32040	0.9996
No. Profiles	Wave 3 model fit statistics				
	Entropy	AIC	BIC	SaBIC	LMR
Two	0.926	34588	34795	34680	0.0022
Three	0.826	34162	34460	34295	0.2846
Four	0.861	33891	34282	34066	0.3918
Five	0.916	33417	33899	33632	0.9913

Note. AIC = Akaike's Information Criterion. BIC = Bayesian Information Criterion. SaBIC = Sample-Size Adjusted BIC. LMR = *p*-value for Lo-Mendell-Rubin Likelihood Ratio Test. **Bolded** rows represent the model fit statistics for the chosen solution.

provided a significant improvement in model fit over a model with one fewer profile (e.g., two).

At both waves, fit indices were contradictory. The LMR *p*-value was non-significant for three profiles at both waves (indicating that a three-profile solution did not provide a significantly better fit than two profiles). We note, however, that the LMR test does not evaluate whether the solution with more profiles provides a more substantively and theoretically interpretable solution, only that adding another profile does not significantly improve the model fit. In contrast to the LMR, the information criteria (AIC, BIC, and SaBIC) continued to decrease and thus suggested an ever-increasing number of profiles. This situation is common in LPAs, however, and does not guarantee that the largest number of profiles provides the most meaningful or interpretable solution. We identified the four-profile solution as the most appropriate at both waves. Although the information criteria suggested that a five-profile solution provided a better fit, these models were not well identified (i.e., they had trouble converging even with a large number of random starts), and the solution produced had two profiles that differed from each other only slightly. Thus, we chose four profiles.

The four-profile solution was very similar across waves. The response patterns for each profile are shown in Fig. 1. The *Organizers* profile (26.6% Wave 2, 26.5% Wave 3) showed low frequencies of starting a club or

organization but a high frequency of organizing people around a cause, coupled with some involvement in the other activities. The *Low Initiative* profile (50.3% Wave 2, 48.2% Wave 3) was characterized by low frequency of the two high-initiative activities (starting a club and organizing people around a cause) and low-to-moderate engagement in the other three activities (volunteering, mentoring or peer advising, and being a leader in a group or organization). The *Highly Involved* profile (8.8 % Wave 2, 10.5 % Wave 3), showed frequent participation in both high-initiative activities (starting a club and organizing people around a cause) along with the highest levels of participation in the other activities, especially acting in leadership roles in an organization. The *Moderately Involved* profile (14.3% Wave 2, 14.7% Wave 3) was characterized by moderate frequencies of all activities.

As described above and shown in Fig. 1, two profiles (*Moderately Involved* and *Highly Involved*) had similar shapes, but different levels, of participation. The *Organizers* profile, however, showed a pattern of participation that was similar to the *Highly Involved* group, with the notable exception of the “Start a Club” indicator, on which the *Organizers* had a much lower score than those in the *Highly Involved* group. The *Low Initiative* pattern showed the lowest levels of participation in any of the activities, with particularly low average scores for the activities requiring the most initiative (i.e.,

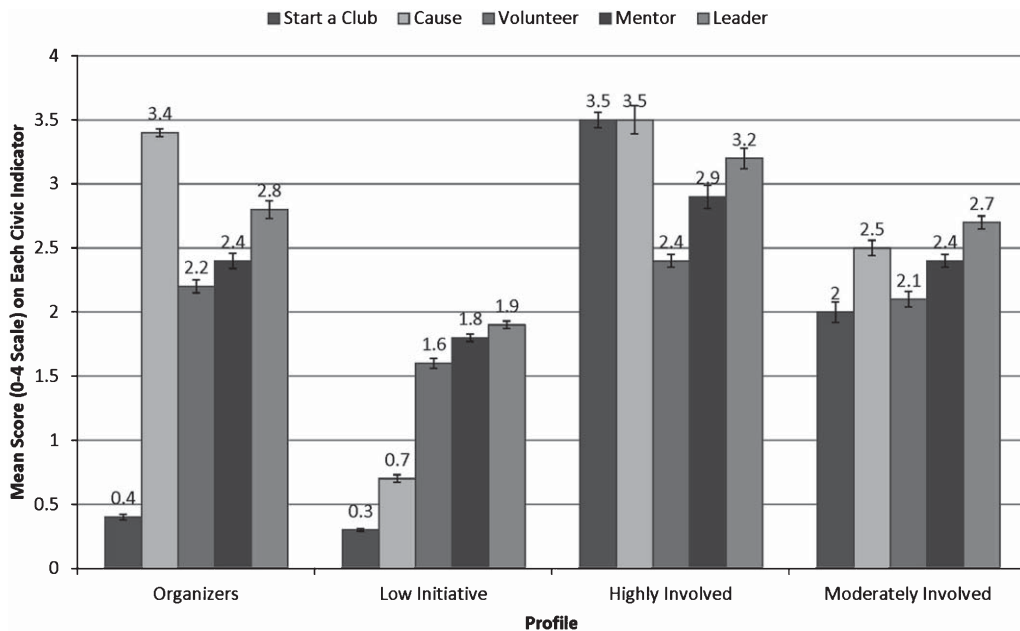


Fig. 1. Average response patterns for profiles of civic engagement.

starting a club or organizing people around a cause). As such, each group had a unique pattern of engagement.

Predictors of Wave 2 Profile Membership

We tested for differences among the profiles in several characteristics. First, to obtain additional information about the profiles, we tested for differences across profiles in demographic characteristics, including socioeconomic status, racial/ethnic identification, age, and gender. There were no differences in profile membership based on self-reported socioeconomic status, $\chi^2(9, 2193) = 9.91, p = 0.36$, racial ethnic identification, $\chi^2(12, 2318) = 9.45, p = 0.66$, or age, $F(3, 2310) = 0.72, p = 0.54$. We did, however, observe gender differences in Wave 2 profile membership, $\chi^2(3, 2351) = 11.57, p = 0.009$, such that women were more likely to be classified into either the *Low Initiative* or *Moderately Involved* groups than were men.

Second, we tested our hypotheses regarding differences in profile membership based on education status and contribution ideology. We tested for differences based on education status using a procedure (described in the methods section) similar to multinomial logistic regression. The coefficients (in log units) and their associated odds ratios from this analysis are shown in Table 2. The odds ratio for each dummy code represents how likely membership is for a given profile compared to the reference profile (denoted as “ref” in the table), when comparing the two groups represented

by the dummy variable. For example, out-of-school participants compared to participants enrolled in a bachelor’s level program or lower have an odds ratio of 1.93 for the *Low Initiative* group. This finding means that out-of-school participants were nearly twice as likely, when compared to undergraduate students, to be in the *Low Initiative* profile as compared to the *Moderately Involved* profile (the reference group in this case). Out-of-school participants were nearly three times more likely than undergraduate students to be in the *Low Initiative* profile compared to the *Highly Involved* profile. The second part of the table shows an opposite pattern of results when comparing graduate-enrolled participants with undergraduate-enrolled participants. Graduate students were much less likely to be in the *Low Initiative* group – compared to any of the other three profiles – and they were more likely to be in the *Highly Involved* group than in the *Moderately Involved* group. They were less likely than undergraduate-enrolled participants, however, to be in the *Organizers* group than in the *Moderately Involved* group.

For contribution ideology, we tested for equality of means across the profile groups. Scores on the contribution-ideology subscale were as follows (shown in Fig. 2): *Low Initiative*, $M = 3.69 (SD = 0.05)$; *Moderately Involved* $M = 3.78 (SD = 0.16)$, *Organizers* $M = 4.00 (SD = 0.15)$, and *Highly Involved* $M = 4.14 (SD = 0.18)$. The overall chi-square test statistic was significant, $\chi^2(3) = 91.21, p < 0.001$, which indicates at least two group means were different from each other.

Table 2
Logistic Regression Coefficients and Odds Ratios for Four-profile Model of Civic Engagement with Categorical Covariates Predicting Profile Membership

	Latent profile			
	Low initiative	Highly involved	Organizers	Moderately involved
Out of school (Change in odds compared to enrolled in BA program or lower)				
β_{1s}	0.66*	-0.37	0.17	ref
Odds Ratios	1.93	0.69	1.19	ref
β_{1s}	0.49	-0.54	ref	
Odds Ratios	1.63	0.58	ref	
β_{1s}	1.04*	Ref		
Odds Ratios	2.83	Ref		
Graduate school (Change in odds compared to enrolled in BA program or lower)				
β_{1s}	-0.91*	0.67*	-0.50*	ref
Odds Ratios	0.40	1.95	0.61	ref
β_{1s}	-0.41*	1.18*	ref	
Odds Ratios	0.66	3.25	ref	
β_{1s}	-1.59*	Ref		
Odds Ratios	0.20	Ref		

* $p < 0.016$ (alpha level chosen based on Bonferroni correction for multiple tests) Note. “ref” = reference profile. **Bolded** odds ratios are statistically significant.

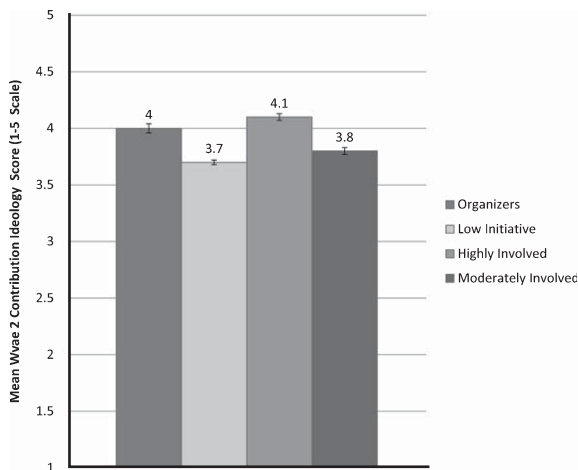


Fig. 2. Average Wave 2 scores on contribution ideology by profile membership.

Follow-up analyses using an alpha level of .016 (to correct for multiple comparisons) showed that scores for the *Highly Involved* group were significantly higher than those of all three other groups. *Organizers* had had a higher mean score than *Moderately Involved* or *Low Initiative* profiles, which were not significantly different from each other.

In sum, this set of analyses resulted in two primary findings. First, graduate students were more likely, compared to either out-of-school participants or those enrolled in bachelor's level programs or below, to be classified into the profiles characterized by higher levels of involvement and initiative. Second, levels of contribution ideology at Wave 2 followed an expected pattern, with the higher-involvement profiles (*Highly Involved* and *Organizers*) having higher average scores on Wave 2 contribution ideology.

Transitions Between Profiles of Civic Engagement

To investigate whether individuals transitioned between profiles of civic engagement between Waves 2 and 3, we used Latent Transition Analysis (LTA). LTA provides information about how profile composition changes (e.g., whether profiles become more or less numerous and whether new profiles emerge) and how likely participants are to make transitions among the profiles (e.g., whether one type of transition is more probable than others). Visual inspection of the response pattern for the profiles at both waves showed considerable similarity (e.g., the estimated means for each item within the profiles were nearly the same at Wave 2 and Wave 3).

Thus, we tested whether the response patterns for each profile could be constrained to be equal across waves without worsening the model fit. This procedure is conceptually similar to measurement invariance testing in confirmatory factor analyses, although in LPAs there are few guidelines about how much change in model fit is acceptable before equivalence across profiles is rejected. For our analyses, each of the information criteria changed only slightly (less than .5%), so we determined that we could move forward with the LTA model in which the response patterns of each profile were constrained to be equivalent across waves.

Table 3 shows the probability of individuals being classified in each profile at Wave 3 based on their Wave 2 profile membership. The LTA showed that although the proportion of the sample in each profile was similar across waves, many individuals were classified into different profiles at each wave. Membership in the *Low Initiative* profile was the most stable, with about 80% of participants who were classified in this profile at Wave 2 also being classified in it at Wave 3. The other profiles had lower stability rates, but were similar to each other (.69, .56, .60 for *Moderate*, *High*, and *Organizers*, respectively).

Differences in Profile Transitions based on Education Status Changes and Civic Values

We extended the LTA procedure to investigate whether education status changes and civic values predicted participants' likelihood of making certain transitions among the profiles. To investigate how education status changes were related to profile transitions, we used the KNOWNCLASS feature in MPlus, which retains the original LTA model but produces a transition probability table for each value of the covariate. This procedure can only incorporate binary variables, however, so we used the dichotomous variable of whether participants had experienced any educational change between waves (regardless of the type).

Table 4 shows these two matrices, which were quite similar. For example, the stability rates for the *Low Initiative* profile are .79 (no education status change) and .84 (status change), and for the *Highly Involved* profile the corresponding rates are .60 and .55. These results provide initial indications that education status changes, as they are measured in this study, were not strongly related to changes in participants' patterns of civic engagement.

Our final analyses investigated whether participants' likelihood of profile transitions differed based on their

Table 3
 Probabilities of Membership in Wave 3 Profiles based on Wave 2 Profile Membership

Wave 2 Profile	Wave 3 profile			
	Org	Low	High	Mod
Organizers (Org)	0.6	0.23	0.11	0.07
Low Initiative (Low)	0.14	0.81	0.02	0.03
Highly Involved (High)	0.2	0.06	0.56	0.18
Moderately Involved (Mod)	0.12	0.07	0.12	0.69

Table 4
 Probabilities of Membership in Wave 3 Profiles Based on Wave 2 Profile Membership Based on Educational Transitions Between Waves

No educational status change between waves		Wave 3 profile				
Wave 2 Profile	%	Org	Low	High	Mod	
	.26	Org	.61	.23	.11	.05
	.51	Low	.16	.79	.02	.03
	.08	High	.22	.09	.55	.14
	.14	Mod	.13	.07	.14	.67
Educational status change between waves		Wave 3 profile				
Wave 2 Profile	%	Org	Low	High	Mod	
	.29	Org	.53	.28	.10	.09
	.50	Low	.10	.84	.01	.05
	.10	High	.12	.00	.60	.28
	.11	Mod	.09	.15	.03	.73

Note. Org = Organizers. Low = Low Initiative. Mod = Moderately Involved. High = Highly Involved.

level of contribution ideology at Wave 2. For example, was membership in the *Highly Involved* profile more stable for participants with high initial levels of contribution ideology? To do so, we used the Mplus LTA calculator, which provides transition matrices at researcher-specified levels of the continuous covariate (e.g., the sample mean). We chose to examine the following levels of contribution ideology: 3.18 (one SD below the sample mean), 3.81 (the sample mean), and 4.45 (one SD above the sample mean). Table 5 shows transition matrices for each of these initial levels of contribution ideology; the table also shows, at each level of Wave 2 contribution ideology, the percentage of participants classified into the four Wave 2 profiles.

We observed several general patterns. First, nearly half of participants with a Wave 2 contribution ideology score of 3.18 (1 SD below the mean) were classified into the *Low Initiative* profile, but this percentage decreased (to 26% and then 13%) among participants with higher levels of Contribution Ideology. The opposite pattern was observed for the other three profiles and was especially marked for the *Organizer* profile (17% at 1 SD below the mean, 27% at the sample mean, and 35% at 1 SD above the mean). These findings are consistent with

results presented earlier showing mean differences in Contribution Ideology among the four groups. It is also notable that rates of profile stability were high for those in the *Low Initiative* group across all values of Contribution Ideology. In contrast, for *Organizers* and *Highly Involved*, stability rates were higher among participants with higher Contribution Ideology scores at Wave 2. For example, at Contribution Ideology = 3.18, 54% of Wave 2 *Highly Involved* participants were also classified into that profile at Wave 3; this rate is in contrast to 77% at Contribution Ideology = 4.45. The increase was less dramatic among *Organizers*, but the pattern was the same. An opposite pattern was observed for the *Moderately Involved* profile, however, with lower rates of stability at higher Contribution Ideology scores. The decrease in stability for *Moderately Involved* seemed to be due to more participants moving to the *Organizers* profile at higher values of Contribution Ideology.

In sum, results from this set of analyses suggested that stability rates for each profile (i.e., the proportion of individuals classified into each profile at both waves) were similar regardless of whether participants had experienced educational status changes between waves; in contrast, stability rates differed based on individual's

Table 5
Latent Transition Matrices for Specific Values of Contribution Ideology at Wave 2

Contribution ideology = 3.18 (1 SD below sample mean)			Wave 3 profile			
Wave 2 Profile			Org	Low	High	Mod
	%					
	0.17	Org	0.52	0.17	0.1	0.22
	0.46	Low	0.04	0.94	0.02	0
	0.1	High	0.18	0.07	0.54	0.22
	0.27	Mod	0.18	0	0.1	0.73
Contribution ideology = 3.81 (sample mean)			Wave 3 profile			
Wave 2 Profile			Org	Low	High	Mod
	%					
	0.27	Org	0.59	0.1	0.12	0.2
	0.26	Low	0.03	0.96	0.01	0
	0.13	High	0.14	0.03	0.67	0.16
	0.33	Mod	0.23	0	0.09	0.68
Contribution ideology = 4.45 (1 SD above sample mean)			Wave 3 profile			
Wave 2 Profile			Org	Low	High	Mod
	%					
	0.35	Org	0.63	0.06	0.14	0.18
	0.13	Low	0.02	0.98	0.01	0
	0.15	High	0.1	0.02	0.77	0.12
	0.36	Mod	0.29	0	0.09	0.62

Note. Org = Organizers. Low = Low Initiative. Mod = Moderately Involved. High = Highly Involved.

Wave 2 levels of Contribution Ideology. Participants with higher initial levels of Contribution Ideology were more likely to be classified into the profiles marked by more involvement at Wave 2 and to stay in those profiles across waves. In short, time and place matter, but not for all profiles, and not for all contextual changes (Baltes et al., 2006; Bronfenbrenner & Morris, 2006; Elder et al., in press).

Discussion

Civic engagement is an important aspect of human development, especially across the transition to adulthood, as it is associated with positive outcomes for individuals and their communities (Colby et al., 2007). However, reflecting life-course concepts about the importance of time (in the case of the present study, ontogenetic time) and place (life transitions involving educational settings, in the present study; Elder et al., in press), young adults' civic engagement may fluctuate in relation to contextual factors such as institutional associations (e.g., enrollment in higher education) until they settle into adult roles. Alternatively, young people may maintain consistent levels or patterns of civic engagement across this period (Finlay et al., 2010), perhaps based on individual characteristics (e.g., ideologies that support contribution to society). Thus, by

examining patterns of civic engagement among young adults, we were able to investigate overall stability and change in these patterns, and to assess whether time and place mattered, that is, whether changes in these patterns may be associated with transitions into and out of higher education.

Existence of Latent Profiles

We used latent profile analysis (LPA) to examine patterns of civic engagement and latent transition analysis (LTA) to examine transitions between these patterns. The items we used to index civic engagement resulted in four consistent configurations across two time points, distinguishing participants not only on their level of general involvement but also on their involvement in high-initiative activities such as organizing people around a cause. Given the variation in time and loci and types of activities involved in these four configurations, these findings are consistent with the ideas about the importance of time and place suggested in life-course theory (Elder et al., in press) and in other theoretical models linking individuals dynamically with their contexts (e.g., life-span developmental theory, Baltes et al., 2006, and bioecological theory, e.g., Bronfenbrenner & Morris, 2006). In other words, these four profiles illustrated differences in temporally-ordered mean levels of civic engagement as well as qualitatively different

types of civic engagement. These findings indicate the value of a person-centered approach, as these nuances in pattern would have been obscured in an analysis using only sum scores of participation. However, it is interesting to note that we did not find a “no engagement” profile, perhaps because all participants had at some point been enrolled in higher education and may therefore be already more likely to have higher levels of civic engagement than non-college-attending young people (Flanagan & Levine, 2010; Syvertsen et al., 2011).

In addition, we found that those enrolled in graduate school were more likely to have a response pattern that was consistent with profiles of higher involvement. This finding may be related to the wording of our items, which can include leadership in degree-related organizations, or to particular characteristics that are specific to young people who are enrolled in graduate school. Future research should also control for these particular characteristics (e.g., through propensity score matching with similarly aged youth who have not gone to college or graduate school but who may also be involved in civic service, for instance in the military). Contribution ideology aligned with profile membership, such that those with low levels were more likely to be in the *Low Initiative* profile and those with higher levels were more likely to be in the *Highly Involved* profile, but individuals with the full range of level contribution ideologies could be found in every profile.

Transitions in Profile Membership and Predictors of Change in Profile Membership

Although the same patterns of engagement existed at both time points, many individuals were not classified into the same profile at both time points. Changes in class membership were more likely for individuals in the *Highly Involved* profile, and less likely than for those in the *Low Initiative* profile. Change in school enrollment had no effect on the probability of transition between profiles. This finding runs counter to our expectation that losing an affiliation with a higher education context would be associated with decreased engagement, but it is possible that these young people are finding resources and support in a variety of contexts, or that the particular civic engagement items we assessed are not particularly salient to enrolled or un-enrolled young people. The presence of instability of profile membership means that some individuals did make transitions, regardless of school enrollment changes, whereas others made transitions in conjunction with educational status changes. Such variability

suggests that patterns of civic engagement are not simply inherent to the individual and carried over across contexts. The present study, however, did not assess possible alternative contextual influences on profile transitions. Future research should assess such possible influences, such as changes in residence (e.g., moving to a more or less densely populated, or more or less civically active, place; see Leventhal, Dupéré, & Shuey, in press).

Levels of contribution ideology, however, showed meaningful relationships with initial profile membership as well as with profile membership stability. In particular, initially high levels were associated with higher stability rates in the *Highly Involved* and *Organizers* profiles. This finding suggests that higher levels of contribution ideology may facilitate or motivate civic engagement, even across potentially disruptive life transitions. Stability rates were consistently high for the *Low Initiative*, which suggests that the *Low Initiative* profile may be the most persistent form of civic engagement among the young people in this sample. As such, individuals who work with young adults to provide programming designed to promote civic engagement may need to develop motivational strategies specific to such youth if they wish to engage them in high-initiative civic activities.

General Limitations

As noted in the procedure sections and in portions of this Discussion, each of our data analytic approaches had some specific limitations. In addition, there are other more general limitations. For instance, there are limitations of sample and method. The participants all had been enrolled in a college or university at some point, as they were recruited from higher education settings. This constrained sample limits the generalizability of the findings and prevents us from examining possible differences in profiles and profile transitions among young people who do not enroll in higher education. In addition, our measures of educational transitions only assessed changes in school enrollment without assessing whether participants who left school received the degree they were pursuing or if they dropped out. It is possible that this qualitative difference in the type of transition matters in terms of patterns of civic engagement.

Furthermore, although we assessed participation in many common forms of civic engagement, other civic engagement behaviors (e.g., voting, participat-

ing in protests, signing petitions online) were not assessed. Creating profiles based on different combinations of civic engagement variables may enable future researchers to examine patterns of civic engagement that may be more closely related to contextual supports (e.g., higher education institutions). Future research should also consider taking a more idiographic approach to assessing intraindividual change in civic engagement across this portion of the life span, that is, investigating idiosyncratic patterns of civic engagement that individuals may follow across development. Data collection methods that support idiographic analyses involve collecting data from fewer individuals but across more occasions (e.g., Nesselrode & Molenaar, 2010). The use of truly idiographic quantitative analysis methods such as dynamic factor analysis (Molenaar & Lo, 2012), the idiographic filter (Nesselrode, Gerstorf, Hardy, & Ram, 2007), and recent integrations of these techniques (Molenaar & Nesselrode, 2012) could enable researchers to more fully understand the variety of paths that individuals take toward becoming active and engaged citizens of their communities.

Conclusions

The findings from this study indicated that, contrary to our hypotheses, changes in educational enrollment were not related to changes in civic engagement profile membership. Profile membership changes, however, were consistently related to contribution ideology in theoretically meaningful ways. These results suggest that individuals' civic orientations – measured here through contribution ideology – may be an important factor for protecting against the decline in civic engagement often observed during the traditional years of college enrollment (approximately ages 18 to 22). Evidence of this link between ideology and engagement may provide an intervention point for community or recreational programs aimed at enhancing civically productive contributions among youth.

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