

Looking across High Impact Practices:  
First Year Student Democratic Awareness and Democratic Participation

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Many students have difficulty transitioning from the highly structured high school environment to the largely unstructured environment of college. This transition period, and the overwhelming opportunity for self-direction, is a unique opportunity for not only the first-year student (FYS), but higher education institutions. Recognizing this opportunity, many colleges are increasingly devoting scant resources for FYS to participate in a suite of programs, known as high-impact practices (HIPs) which have been found to have a substantial and positive influence on students' learning and development (Kuh, 2008; Barefoot, 2005). HIPs have the potential not only to provide academic learning gains, but also highlight how classroom learning is connected to the "real world" and help integrate students into the institution, which may increase the probability of persistence and completion (Kuh, 2008).

Creating educated and informed citizens for our diverse democracy has long been one of the objectives of the U.S. educational system (Colby, et al., 2003; Dewey, 1916, Harkavy, 2004). Our democracy will not function if students are not successful at obtaining the knowledge, self-efficacy, attitudes, skills and behaviors necessary to becoming engaged citizens (Sherrod, 2005). As college is "one of the few, public places left where student can learn the power of questioning authority, recover the ideals of engaged citizenship, reaffirm the importance of the public good and expand their capacities to make a difference" (Chomsky, 2003, p.54), it is imperative that we empirically research the practices which can influence FYS engagement and development in civil and political matters. First-year HIP experiences, such as learning communities, research with faculty, and courses designed to engage students in the community are some examples of interventions designed to give FYS the support, skills, and knowledge necessary to cope with and succeed within college. The commonality among these HIPs is that they "demand considerable time and effort; provide learning opportunities outside of the classroom; require meaningful interactions with faculty and students; encourage interaction with diverse others; and provide frequent and meaningful feedback" (National Survey of Student Engagement [NSSE], 2010, p. 22). While both community-based courses and other types of first-year interventions have roots in

programs more than a century old, the literature, practices, and outcomes of these first-year programs has only become increasingly investigated over the past three decades.

Research on the influence of first-year HIPs on students' civil and political engagement, a key liberal learning outcome, is uneven (Finley, 2012). To date, virtually all research on HIPs examining civil and political engagement has focused on service learning and neglected other HIPs. By concentrating on the effects of service-learning, however, researchers may overlook how other high impact experiences (e.g., learning communities) may influence their development as engaged, aware, or knowledgeable citizens. Using a large, multi-institution sample of FYS, this study explores this literature gap by looking at FYS experiences in selected high impact educational practices and their relationship to FYS' self-reported democratic awareness and engagement.

## **LITERATURE REVIEW**

### *DEMOCRATIC AWARENESS AND ENGAGEMENT*

Many terms have been used interchangeably throughout the literature regarding civic outcomes (see Battistoni, 2002 & 2013). Bringle and Clayton (2012), have noted that it is a challenge to “achieve a sufficient level of precision regarding the meaning of civic outcomes and the nature of civic learning within a particular context to ground design, assessment, and research” (p. 112) of initiatives in higher education. Consequently, it is important to clarify these terms and label them within the specific context of this research. In this paper, the terms democratic awareness and democratic engagement are utilized as catch-all or umbrella terms for what has been largely labeled as: civic knowledge, civic identity, or civic agency. These three terms speak to key interrelated yet distinct student civic outcomes and were inspired by Michael X. Delli Carpini's (2006) definitions. The word democratic is used to emphasize the need for citizens in a democracy to interact with both civil society and polity. Additionally, awareness and engagement are used to highlight the different activities involved in being a knowledgeable (i.e., consumer of information and current events) and active participant in our democracy.

We label what some term civic knowledge, as democratic awareness. Civic knowledge is typically understood as a term that describes the “historical, political, and civic knowledge that arises

from both academic and community sources” (Saltmarsh, 2005, p. 53). Furthermore, for the purposes of this essay, what others have termed civic identity and agency is labeled here as democratic engagement. Civic identity describes individuals who are “fully engaged, fully human citizens of their communities, who see their role in life as contributing to the long-term greater good” (Kneflkamp, 2008, p.3). Civic agency is defined by Boyte (2007) as “the capacity of human communities and/or groups to act cooperatively and collectively on common problems across their differences” (para 2), which underscores the importance of coming together and working together to move beyond “simply [being] voters, volunteers, and consumers” and into being “problem solvers, and co-creators of the public good” (Boyte, 2005, p. 536). By changing the label from civic to democratic, an attempt is made to “account for the myriad of ways” (Howe & Fosnacht, 2015, p. 5) students become knowledgeable about, identify with, and act or engage in the social issues affecting the various levels of their communities (local, state, national or global).

Several hundred studies have demonstrated the positive effects of initiatives focused on democratic awareness and engagement for undergraduates. The early 1990s saw a burgeoning interest in service and academic integration in higher education, largely in reaction to the changing nature of higher education from a public to a private good (Saltmarsh, 2005). Research concerning the relationships between high impact educational practices and outcomes of student persistence and cognitive outcomes have received good coverage, (e.g., Astin, 1993, 1996; Astin & Sax, 1998; Berger, 2000; Eyler & Giles, 1999; Kuh, Kinzi, Buckley, Bridges & Hayek, 2007; Pascarella & Terenzini, 2005; Stanton, Giles & Cruz, 1999), but research regarding first-year experiences and outcomes related to democratic awareness and/or engagement is sparse. Further, the vast majority of this research concentrates on one particular type of educational practice: service learning. A review of the empirical research regarding service learning as a high impact educational practice in relation to the outcomes of democratic awareness and engagement is offered below.

*SERVICE LEARNING & HIGH IMPACT EDUCATIONAL PRACTICES*

Service-learning combines academic knowledge, practical hands-on experience, and civic engagement. Upon completion of service learning, research shows that students report an increase in their development of civic identity, civic agency, and civic knowledge and they develop a tendency to include service work in their career, a feeling of being connected with individuals and communities, and a greater understanding of diversity in their communities (Carrilio & Mathiesen, 2006; Malmgren, 2008; Teranishi, 2008; Astin, et al, 2000). Consequently, service-learning is often viewed as the *premier* way to develop the civic skills, attitudes, behaviors and dispositions necessary to becoming an engaged and informed citizen during the college experience.

Service learning programs aim to create a link between the community and the classroom. The program pairs organized community service activities with classroom learning. The class portion commonly focuses on small group discussions, writing, and presentations integrated with disciplinary topics with the community-based or community-engaged activities (Eyler & Giles, 1999; Zlotkowski, 2005). The service activities vary widely, depending on the local community organizations. The service activities provide students with exposure to organizations within the community and with hands on experiences in addressing local, community problems. Most research studies show that service learning, at various points throughout the college experience, has a positive impact on student engagement, civic learning, or democratic awareness (e.g., Billig, 2000; Astin 2000).

The design and implementation of service learning courses varies across institutional types. Institutions have defined their educational civic engagement role in different ways, depending upon their historic roots, primary missions, and historical relationships with their communities. Pollack (1999) provided a framework that is useful to describe the distinct orientation of differing institutional types in terms of their orientation toward community service. For example, liberal arts colleges with foundations built on classical education of the clergy and gentry commonly developed a curriculum of character development and knowledge enhancement to provide civic leaders. In contrast, research universities emphasize applying knowledge to solve social problems and providing clinical services. This information

is important to keep in mind because the experience of first-year students is nested within a particular institution type.

Additionally the theoretical backdrop for framing service learning is just as varied as are the definitions for it. For the purposes of this research project an angle was taken toward appreciating service learning as *one* of a variety of high impact practices, when reviewing empirical research. Kuh (2008, 2009) has argued that high-impact practices such as service-learning, learning communities, research with a faculty member, study abroad, internships, and culminating senior events are special undergraduate experiences because of the positive effects they have on student learning and retention.

While research has examined the relationship between service learning and democratic or civic learning outcomes, previous research has identified some substantial gaps in the literature. First, others have noted the dearth of research regarding first-year experiences, service learning, and civic outcomes: “There is in general a scarcity of studies that consider the relationship between service learning and students’ first year in college” and civic outcomes (Vogelgesang, 2002, p. 19). Further, scant research has examined how other college programs and activities influence civic outcomes (Bok, 2001). Therefore, further research is needed on other types of high impact practices and their relationship to civic outcomes during the first-year. Finally, citizenship inherently includes skills, behaviors, attitudes, and actions that are political in nature—dealing with issues of power. However, a majority of the service-learning programs, curricula, and research frame students’ development toward citizenship in an apolitical fashion (Finley, 2011; Biddix, 2014). Little research has been done to partner apolitical forms (i.e. service learning) with the political involvement in order to create a larger picture of what it means to be an active citizen. Consequently, too many interventions designed for higher education students emphasize the social or civil aspects of citizenship which, consequently, frames for our students that citizenship is something to be done *for* others and self, and not *with* others through differences (Finley, 2011; 2012). This study seeks to address these three gaps, through exploratory research regarding first-year students self-reported participation in selected high impact practices and the civic outcomes of democratic awareness or participation.

*OTHER FIRST-YEAR HIPs*

In addition to examining service learning, this study will examine the relationship between participation in a learning community and undergraduate research with civic outcomes. Both of these activities have been demonstrated to have a substantial impact on the first-year experience and first-year students frequently participate in them. As little research has been devoted to studying the relationship between these experiences and the study's key outcomes, we will briefly describe the programs and highlight the existing research.

*Learning Communities*

A learning community is “an intentionally developed community that will promote and maximize learning. For a learning community to be effective, it must emphasize active, focused involvement in learning and collaboration that stimulates and promotes the group and group members learning” (Lenning & Ebbers, 1999, p. 22). Student learning communities differ across the dimensions of primary membership (characteristics that the group has in common, such as major) and primary form of interaction (e.g. in-person, or virtual interaction). There are a variety of different approaches to designing learning communities that differ on the two dimension identified above. These approaches include curricular learning communities, classroom learning communities, residential or living-learning communities, and student-type learning communities. Much of the research evidence appears to support positive learning outcomes for students involved in learning communities (Fosnacht & Graham, 2016; Kuh, 2008; Lenning & Ebbers, 1999; Shapiro & Levine, 1999). In general, advocates of learning communities point to the case study examples of success and engagement as well as the large number of empirical studies that show increases in a variety of student outcomes for those who are involved in learning communities.

Two studies have examined the relationship between learning community participation and civic outcomes. Rowan-Keyon and colleagues (2007) used a subsample from the National Study of Living Learning Programs and did not find a substantial link between learning community participation and civic engagement. Although, their sample was relatively small, indicating that the study may not have had

adequate statistical power to identify any significant relationship. However, Howe and Fosnacht (2015) reported that learning community participation was positively and significantly associated with civic outcomes after controlling for other factors for a sample of senior students. Additionally, they noted that the estimated impact of learning community participation was *significantly greater* than for service learning.

### *Research with Faculty*

Like the other first-year interventions highlighted in this essay, research with faculty is a way to formally integrate students into the social and academic systems in college. A key to involving students in their educational and social experiences is the faculty-student relationship. When the student-professor relationship is positive it influences student motivation, intellectual commitments, personal development, academic achievement and persistence (see Chickering & Gamson, 1991). Research with faculty takes on many forms, formally or informally, tied to course work, or the students major, etc. Previous research on student-faculty interactions and various cognitive and social outcomes suggested that this experience can be impactful (Kuh, 2000; Kuh, Chen & Nelson Laird, 2007), but an empirical link to student specific civic outcomes has not been established. The lone study to examine the relationship between undergraduate research and civic outcomes found a positive and significant correlation between the two activities for senior students (Howe & Fosnacht, 2015).

The literature on the relationship between participation in selected HIPs and civic outcomes for FYS is relatively sparse. Most of the literature focuses on the impacts of service learning courses, but these courses are generally apolitical and they research investigates how the influence volunteering and other affective outcomes, not engagement in polity. This study is inspired by the findings of Howe and Fosnacht (2015), and seeks to replicate their work, but focus on HIP participation influences democratic outcomes during the first college year. Therefore, we investigated the following research questions for using a comprehensive, multi-institutional sample of first-year students:

1. How are student and institutional characteristics associated with democratic awareness and engagement?

2. How does participation in service-learning, learning communities, and undergraduate research influence students' democratic awareness and engagement?
3. How does the estimated effect size of participating in learning communities and undergraduate research compare to the estimated effect size for service learning on democratic awareness and participation?

## **METHODS**

### *DATA*

To answer these questions, we utilized data from first-year students in the U.S. who responded to the 2014 National Survey of Student Engagement (NSSE). NSSE is a large multi-institutional survey administered to examine student engagement across various engagement benchmarks. Due to the focus on democratic awareness and participation, the sample for this study was drawn from those who completed the optional, supplemental NSSE Civic Engagement module. It was also decided to exclude part-time, distance-learning transfer, and students aged older than 23 from the sample since the focus of this study is traditional first-year students.

After accounting for these exclusions, the data sample contained 12,871 students. Table 1 contains the characteristics of the sample. Two thirds of the respondents were female. Approximately 65 percent of respondents were White with African Americans and multi-racial students representing eight and seven percent of the sample respectively. The largest major fields were health professionals and business students, although the respondents represented a good distribution across the disciplines. The sample includes respondents from a comprehensive, but not random selection of 50 institutions. Over half of the sample attend a public university. A majority of students represented in this sample, attend institutions that offer master's degrees, while 45 and 16 percent of the respondents attend doctoral universities and baccalaureate colleges. Other institutional characteristics that were utilized in the multivariate analyses include: elective Carnegie Community Engagement Classification, residential status, undergraduate enrollment size, Barron's selectivity rating, and region.

Finally, the NSSE data allows respondents to self-report if they have, intend to, or have not participated in selected high impact practices. The high impact practices analyzed in this study were learning communities, research with faculty, and service learning, as these are the three HIPs most commonly participated in by first-year students inquired about on NSSE. Five, 16, and 46 percent of the sample reported having done or being in the progress of conducting research with faculty, participating in a learning community, and participating in a service learning experience, respectively.

A Graded Response Model (GRM) a generalization of the two-parameter Item Response Theory model for the ordinal variables, was used to estimate the study's two dependent variables: democratic awareness and democratic participation (see Appendix A). The GRM scores of these variables were used because these activities required various amounts of effort and skill and the GRM can account for these variations, whereas a grand mean scoring could not (Eagan, et al., 2015). The marginal reliabilities for democratic awareness was 0.84 and 0.83 for democratic participation. Both variables were standardized to have a mean of zero and a standard deviation of 1. Thus the estimates reflect the effect sizes.

### *ANALYSES*

Analysis began by examining the descriptive relationship between participation in high impact practices and the outcome variables of democratic participation and awareness, due to the exploratory nature of this study. Two group *t*-tests were conducted utilizing dichotomous variables regarding if participants had or had not participated in each of the three high impact practices focused on in this study. After examining these relationships a series of multi-level models were estimated using random intercepts for each outcome. The models investigated the extent of the variation between institutions on the dependent variables and the relationship between student and institutional characteristics and the outcome variables.

Due to the nesting of students within institutions, the random intercepts will account for unobservable variation due to institutional differences. The first models were one-way random-effects models that estimate the amount of variance between and within the institutions. The second set of models investigated the relationship between the two outcomes and the student and institutional

characteristics, except for the high impact practices. The third set of models added indicators of student participation in the high impact practices of interest to this study. With the final model post hoc tests were performed in order to compare the estimated high impact practice coefficients to the estimate for service learning. The post hoc tests examined if the estimated high impact practice coefficient minus the service learning coefficient was significantly different from zero using a  $z$ -test. With the outcome variables standardized, the coefficients represent the estimated effect size for a one unit change in the independent variable. As the dependent variables were standardized with a mean of 0 and standard deviation of 1, the student-level variables were not centered as the intercept is a known parameter and preliminary analyses did not indicate substantial variation in the dependent variables across institutions, and are not using a random coefficient model (Kreft, de Leeuw, & Aiken, 1995).

#### *LIMITATIONS*

This study has a number of limitations. First, institutions can choose if the NSSE Civic Engagement Module is administered as part of their regular NSSE survey. Therefore, the bachelor's-granting institutions represented in this sample may not reflect the national population. Second, NSSE items and topical module questions rely on students' self-reported information, and therefore the data may not accurately reflect the programs and activities FYS have *actually* participated in during their first-year of college. Further, there are considerable differences both between and within institutions in the implementation and curriculum of the three HIPs investigated. For example, a learning community at one institution may group students by major, while another may group students by non-academic interests (e.g., service or *anime*). Likewise, a service-learning experience may include something that has an hourly expectation across the course of a semester (e.g. 8-10 hours) versus participating in an episodic "Day of Service" (e.g. Martin Luther King, Jr. Day of Service), as part of an academic experience. These differences in type or length of experiences (Mabry, 1998) may contribute more or less to the outcome variables in this study. More so, the data does not permit for an investigation into the quality of the high impact practice. While plenty of research exists about what a particular high-impact practice *should be* in order to be impactful on student learning or other outcomes, this study is not able to account for any

variances in this area; well- or poorly-structured HIPs may have effects that greatly deviate from the outcome variables in this study.

This study cannot account for the degree to which students may or may not already be more or less likely to choose to participate in a high impact practice; self-selection is a large issue when it comes to studying HIPs across various outcomes (Eyler and Giles, 1999). Additionally, the study is unable to account for if a student double reports a service-learning experience because it is possible to have been involved in a learning community or other first-year experience that involved a community-based experience, *and* be in a “stand alone” course-based, community-based (i.e., service learning) experience. In 2000, Barefoot reported that of the 600 post-secondary institutions she surveyed, 41.6% of the baccalaureate institutions reported the integration of service-learning in their first-year programs. While, no national survey regarding the high impact practice of research with faculty exists it is also possible that a student could be assisting a faculty member conducting community-based or community-engaged research. These factors may hugely limit how results from this analysis can be understood. Therefore, the results of this study should be viewed as exploratory and replicated by others utilizing random assignment or quasi-experimental methods, such as propensity scores, to confirm the estimated effects found in this study.

## **RESULTS**

### *DEMOCRATIC AWARENESS*

The *t*-test results comparing engagement in selected high impact practices to first-year students' democratic awareness can be seen in Table 3. Students who engaged in each of these activities had significantly higher levels of democratic awareness than their non-participating peers. The magnitude of the mean differences ranged from a high of .37 SDs for research with faculty to .09 SDs for service learning.

The multi-level results can be found in Table 3. We first ran a multi-level model with no covariates to examine the amount of variation across institutions. The intra-class correlation coefficient (ICC) of .02 indicates that nearly all of the variation of democratic awareness occurs within, not between,

institutions. We next estimated two models that included a number of control variables. The first model included all covariates except for the three HIPs, while the subsequent model added variables indicating participation in service learning, research with faculty, and a learning community. The results show that foreign, Asian and Black or African American FYS were significantly less likely to engage in democratic awareness activities than Whites, holding other factors constant. Male students were more likely to engage in these activities, after holding constant other factors. Substantial differences were observed by major field, as nearly all fields were significantly less likely than their social science counterparts to engage in democratic awareness activities. The exception, communications, media, and public relation majors were statistically equivalent to social science students. Students who earned mostly A's were significantly more likely to engage in democratic awareness activities than students with lower grades holding other variables constant. Significant differences were also observed by parental education level. Students with a parent who obtained a graduate degree on average engaged in more democratic awareness activities than students with a parent who earn just a bachelor's. However, no significant difference was found between the bachelor's and lower parental education levels, holding other variables constant. Students who participated in Greek-life were more likely to participate in democratic awareness activities after controlling for other characteristics. None of the institutional characteristics in this model had any significant link to democratic awareness activities.

Participation in all three high impact practices examined here were positively correlated with democratic awareness, after holding other factors constant. The largest estimated effect size was for research with faculty (.32), followed by learning communities (.21). The estimated effect size for service learning was .17 lower. Table 4 compares the high impact practice participation estimates from model 3 to the estimated effect of participating in service learning. Learning communities and research with faculty were both estimated to have a significantly greater effect sizes than service learning. The effect size differences were .04 and .15 for learning communities and research with faculty, respectively.

#### *DEMOCRATIC PARTICIPATION*

The *t*-test results comparing engagement in selected high impact practices to the outcome variable of democratic awareness can be seen in Table 3. The means were significantly different on all three high impact practices examined. The magnitude of the mean differences ranged from .44 SDs for research with faculty and .17 SDs for service learning.

The multi-level results for the outcome variable of democratic participation can be found in Table 3. The first model indicates that nearly all of the variation of democratic participation occurred at the student level, not at the institutional level. The subsequent models show that, after controlling for other characteristics, all ethnicities except for Hispanic or Latinos were more likely to engage in democratic participation activities than their White counterparts. However, the estimate for Hispanic/Latino declined substantially in magnitude between models 2 and 3 and became non-significant. Males, transfer students, and members of a Greek organization all had higher levels of democratic participation than their peers, holding constant other characteristics. Students majoring in the following fields were less likely to engage in democratic participation activities than social science majors, holding constant other characteristics: arts & humanities; biological sciences, agricultural sciences, & natural resources; physical sciences, math & computer science; engineering; health professionals; and undecided or undeclared majors. No significant difference between business, social services and the catch all category of “all other” majors and social science majors were observed. Communications, media and public relations majors were significantly more likely to engage in democratic participation activities than social science majors, controlling for other factors. Students who earned mostly B’s had slightly higher levels of democratic participation than students who earned mostly A’s, after controlling for other characteristics. No significant difference was observed for students earning mostly Cs or lower. On average, the following parental education levels had significantly higher levels of democratic participation than the bachelor’s level: high school diploma, associate’s, mater’s, and doctoral/professional degree. No institutional characteristics in this model had any significant association with democratic participation activities.

Participation in the three high impact practices were positively correlated with democratic participation, after holding other factors constant. Research with faculty had the largest estimated effect size (.45), followed by service learning (.30), and learning communities (.21). Table 4 compares the high impact practice participation estimates from model 3 to the estimated effect of participating in service learning. Research with faculty had a significantly greater effect size than service learning as the difference was .16 and significant at the  $\alpha < .01$  level. The estimated magnitude of the effects was statistically equivalent for learning communities and service learning.

## DISCUSSION

For more than 300 years, higher education has been seen as essential to the development of a well-informed and active, democratic society. This long tradition of viewing higher education as an important experience for educating citizens who can sustain and develop inclusive democratic spheres has persisted—if not waxed and waned. Through these moments when the public mission of higher education has fallen from favor-- if not all but completely morphed into an emphasis on the private outcomes of higher education (i.e., social efficiency, social mobility)—faculty and administrators have responded by finding innovative ways to link specific curricular interventions (i.e. service learning) with democratic outcomes. Generally speaking, plenty of evidence exists to understand how service learning is linked to certain civic outcomes (Finley, 2012; Whitley, 2014). However, not much of the research on service learning focuses on the experience of first-year students (Vogelgesang, 2002). In addition, other scholars have cautioned against a dependency on service-learning to beget civic outcomes (Bok, 2001) and overemphasized the apolitical outcomes usually associated with service learning (Finley, 2011; Biddix, 2014). In this study, a focus on first-year students was taken, while looking through select high impact practices beyond service learning in order to understand if they have a strong relationship with two civic outcomes: democratic awareness and democratic participation.

Looking through data from a large, comprehensive, multi-campus sample of first-year students (FYS), the results of this study acquiesce with other's wariness of focusing solely on service learning while still supporting the ability of service learning to promote civic outcomes. Overall, it can be

concluded that service learning significantly and positively relates to both of the outcome variables: democratic awareness and democratic participation. Results of this study also indicate, however, that participating in a learning community and engaging in research with faculty are two practices that have a stronger relationship with democratic awareness than service learning, when controlling for other variables. That is to say, these two, specific types of high impact practices are more likely to foster a student's likelihood to inform themselves of campus, local, state, national or global issues and discuss those issues with others. Further, the results indicate that while participating in a learning community is statistically equivalent to the estimated effect of engaging in democratic participation activities, those who conduct research with faculty are significantly more likely to actively participate in the political activities, than their peers who engage in service learning.

The findings here support the previous research of Howe and Fosnacht (2015) which also concluded that participating in a learning community has a significantly greater effect on senior students' democratic awareness than service learning. When looking across our research, learning communities were estimated to promote a .21 and .23 standard deviation increase in democratic awareness for first-year and senior students, respectively. This would insinuate that the effects of learning communities stay constant throughout the undergraduate experience and do not dissipate over time. Utilizing (bridging and bonding) social capital theory, Howe and Fosnacht (2015) postulate that learning communities may be "mini-democracies... that build trust and community among the members, which when combined with their shared interest [or other similarity] form sub-communities with the school" (p. 19). Learning communities as mini-democracies therefore, may be an experience that helps to not only foster this outcome, but also bond it throughout or to some personal or social aspect of a student's experience in college.

Since these results support their conclusions regarding the impact of learning communities (above and beyond service learning) on students' civic outcomes of democratic awareness, further research should be conducted in order to extrapolate the qualitative measures of this experience as it relates to democratic awareness for FYS and seniors. Additionally, NSSE (2015) recommends that direct

comparisons between FYS and seniors should be limited and taken with a grain of salt given the very nature of today's college student (e.g., more than a third of college students transfer at least once, Shapiro et al., 2015). Consequently, the extent to which our research can be connected is limited and future research where results can be replicated using random assignment or quasi-experimental methods, such as propensity score matching, should be utilized if conclusions surrounding both of these populations need to be made clearer.

Notably, this research only partially supports Howe and Fosnacht's (2015) conclusion regarding the outcome of democratic participation related to participation in a learning community; both studies have found a positive relationship between participating in learning communities and democratic participation. In this study the results, as previously stated, indicate that when it comes to FYS's democratic participation there is no significant difference between those who have participated in a learning community or a service learning experience while Howe and Fosnacht found a significant difference among seniors. Looking across both of these studies, these outcomes are somewhat expected, when considering the inherent differences between our first-year and senior students: seniors have not only had more opportunities to engage in democratic participation experiences, but, importantly, they have had a chance to develop the leadership qualities necessary for democratic participation as defined by the Civic Engagement module.

Another interesting result of this study indicates that research with faculty appears to have a powerful (i.e., relatively large effect size) and significant relationship with both the outcome variables of democratic awareness and participation for first-year students, before and after controlling for all other characteristics. The models indicate that engaging in research with a faculty member increases democratic awareness and participation by roughly one third and two fifths of a standard deviation, respectively. These effect sizes are relatively large for education research (Lipsey et al., 2012; Rocconi & Gonyea, 2015) and no reductions in the estimates after controlling for other variables across characteristics was observed.

Due to the nature of quantitative research, extrapolating the statistical results to real-world implications for developing civic outcomes on FYS in research with faculty is limited. Research has confirmed the importance of faculty values, demonstrating how interactions influence the likelihood that students will develop similar values and practices (Kuh, 2000; Kuh, Chen & Nelson Laird, 2007; Umbach & Wawryznski, 2005). Nelson Laird's (2007) findings, related to student and faculty involvement in undergraduate research, support the need to examine the students' perceptions of what the faculty believe to be important. Meaning, if faculty value democratic participation, espouse those values, and make a conscious effort to involve students in their research or other creative activities, students may be more likely to become involved in similar activities. Further, if faculty are engaging in research or other scholarly activity that is by its very nature political (e.g., social scientists studying the effects of access to education on certain populations, scientific research involving testing on animals) or may have political implications (e.g., race-based medical research, genomic research) this may as well influence the student's democratic awareness or participation. Interactions between students and faculty, facilitated by research or other creative activities, may be locations where students are exposed directly to a consistent, direct messages to be active and involved citizens.

Considering these possibilities, it is likely that engaging in the high impact practice of conducting research with faculty influence FYS democratic awareness or participation because faculty are the primary agents of college culture, which has an important influence on the attitudes, interests, and values of college students (Chickering & Reisser, 1993; Lambert, Terenzini, & Lattuca, 2007; Pascarella, 1980; Pascarella & Terenzini, 1991, 2005; Thompson, 2001). Specifically, Austin (1990) states, "faculty not only produce knowledge, but also transmit cultural or political values as they educate young people" (p.62). Therefore, faculty who embrace the campus values for civic engagement, and are able to espouse those values and communicate the importance of their community-engaged teaching and research to the students, hold great potential to influence student civic growth (Saltmarsh & Hartley, 2011).

Finally, in addition to the above findings a handful of other findings are notable for discussion here. Results indicated that Black or African American and Asian FYS were significantly less likely to

engage in democratic awareness activities, but were significantly more likely to engage in democratic participation activities than their White counterparts, when holding other student and institutional characteristics constant. This suggests that these particular students of color are more willing to engage in political activities than the more “basic” activities of being informed and discussing issues with others. Taken together with the current findings for the Higher Education Research Institute’s Freshman Survey which has found that nine percent of incoming freshman report high intentions (“very good chance”) that they will participate in political demonstrations such as marches and rallies (Eagan, et al., 2015). Much can be made of extrapolating these findings to programs and initiatives aimed at issues these students-of-color face when it comes to political topics, such as issues of access, equity, or diversity.

## CONCLUSION

The goal of this research was to look beyond service learning, and into how other, specific high impact practices relate to first-year students’ democratic participation and awareness. First-year students, as a population, offer a unique unit of analysis when looking at how tailored, first-year experiences may relate to civic outcomes. Service-learning, as previously noted, is often thought to be the *premier* way of developing civic engagement and civic outcomes among not only first-year students, but also current students and beyond. The results of this study indicate that participating in a community-based activities (i.e., service learning) are significantly related to activities related to the democratic awareness and engagement activities of first-year students. However, this study discovered that participation in the high impact practice of research with faculty is associated with a greater increase in democratic awareness and participation activities of first-year students, when holding other variables constant. This result is very important to the ongoing conversations and empirical research regarding the place and expectations of service learning to solely support students’ civic activities and outcomes during college. Results of this study support our understanding of how students’ democratic awareness is sustained over time if they have participated in a learning community experience, when paired with the previous research by Howe and Fosnacht (2015). In all, the public outcomes of higher education can be sustained through various educational practices, not just service learning.

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**Table 1. Sample characteristics (N= 12,871).**

	%
Gender	
Male	34
Female	66
Race/Ethnicity	
Asian or Pacific Islander	1
Black or African American	8
Hispanic or Latino	7
White	65
Other	7
Multiracial	7
PNA	4
Major Field	
Arts & Humanities	10
Bio. Sci. Agr., & Nat. Res.	11
Phy. Sci. Math & Comp. Sci	5
Social Sciences	11
Business	15
Comm. Media, & Pub. Relations	4
Education	8
Engineering	6
Health Professions	16
Social Service Professionals	4
All Other	6
Control	
Public	52
Public	48
Basic 2010 Carnegie Classification	
Doctoral Universities	45
Master's Colleges and Universities	39
Baccalaureate Colleges	16
Carnegie Elective Classification for Community Engagement	41

*NOTE: Percentages may not total to 100 due to rounding.*

**Table 2. Mean differences & mixed effects estimates of civic learning and democratic engagement-  
First Year Students.**

	Democratic Awareness (N=12,871)				Democratic Participation (N=12,871)							
	Effect Size		Sig.		Effect Size		Sig.					
Learning Community	.19		***		.21		***					
Research with Faculty	.37		***		.44		***					
Service Learning	.09		***		.17		***					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	Est.	Sig.	Est.	Sig.	Est.	Sig.	Est.	Sig.	Est.	Sig.	Est.	Sig.
<i>Fixed Effects</i>												
Race/ethnicity (White)												
Asian or Pacific Islander			-.18	***	-.23	***			.22	***	.17	***
Black or African American			-.11	**	-.13	***			.14	***	.11	**
Hispanic or Latino			-.06		-.09	**			.12	**	.07	
Other			.05		.04				.11	***	.10	***
Foreign			-.01		-.07	*			.43	***	.35	***
Adult			-.14	***	-.08	*			-.16	***	-.05	
Male			.14	***	.15	***			.14	***	.13	***
Transfer			.08	**	.09	**			.08	*	.09	**
Major (Social Science)												
Arts & Humanities			-.20	***	-.20	***			-.11	**	-.10	**
Bio. Sci. Agr., & Nat. Res.			-.13	***	-.15	***			-.09	**	-.11	**
Phy. Sci. Math & Comp. Sci			-.31	***	-.30	***			-.26	***	-.24	***
Business			-.12	***	-.12	***			.01		-.00	
Comm. Media, & Pub. Relations			.08		.07				.12	*	.11	*
Education			-.21	***	-.21	***			-.07		-.11	**
Engineering			-.17	***	-.17	***			-.19	***	-.19	***
Health Professionals			-.28	***	-.29	***			-.11	**	-.14	***
Social Service Professionals			-.12	*	-.13	**			.02		.01	
All Other			-.16	**	-.18	***			.00		-.03	
Undecided, Undeclared			-.34	***	-.35	***			-.17	**	-.18	***
Grades (Mostly A's)												
Mosely B's			-.07	***	-.07	***			.05	**	.06	**
Mostly C's or lower			-.26	***	-.23	***			-.08	*	-.04	
Parental Education (Bachelor's)												
Did not finish high school			.00		.00				.08		.06	
High school diploma/G.E.D.			.01		.00				.07	**	.06	*
Some college			.02		.02				-.00		-.01	
Associate's degree			.02		.01				.07	*	.07	*
Master's degree			.07	**	.06	**			.06	*	.05	*
Doctoral or prof. degree			.12	***	.13	***			.08	*	.09	**
Greek member			.08	**	.06	*			.26	***	.25	***
Living on-campus			.04	*	.03				.02	*	.00	
Basic Carnegie Classification (Doctoral)												
Master's			.00		.02				.03		.04	
Baccalaureate			.02		.04				.06		.09	*
Carnegie Community Engagement			-.01		-.02				.03		-.00	
Residential Character (Nonresidential)												
Primarily residential			-.02		-.03				.00		.00	
Highly Residential			-.03		-.03				.01		.03	
Private			.00		-.03				.02		-.03	

Barron's rating							
Region (Northeast)							
Midwest							
Southeast							
West							
Learning Community							
Research with faculty							
Service learning							
Constant							
<i>Random Effects</i>							
$\sqrt{\psi}$							
$\sqrt{\theta}$							
$\rho$							

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

**Table 3. Difference in estimated coefficients of selected high impact practices and service learning**

	Democratic Awareness		Democratic Participation	
	<i>b</i> diff.	Sig.	<i>b</i> diff.	Sig.
Learning Community	.04	*	-.09	
Research w/ Faculty	.15	**	.16	**

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

**Appendix A.** Graded response model (GRM) parameter estimates for the civic learning and democratic engagement scales- First Year Students.

Item	$\alpha$	$\beta_1$	$\beta_2$	$\beta_3$
<b><i>Democratic Awareness</i></b>				
Informed yourself about local or campus issues	1.62	-2.06	-.05	1.50
Informed yourself about state, national, or global issues	2.78	-1.84	-.16	.98
Discussed local or campus issues with others	2.00	-1.59	.02	1.38
Discussed state, national, or global issues with others	3.38	-1.47	-.01	1.04
<b><i>Democratic Participation</i></b>				
Raised awareness about local or campus issues	3.70	-.02	.76	1.49
Raised awareness about state, national, or global issues	3.44	-.27	.70	1.38
Asked others to address local or campus issues	4.92	.01	.80	1.43
Asked others to address state, national, or global issues	5.14	.03	.78	1.38
Organized others to work on local or campus issues	5.02	.33	.92	1.57
Organized others to work on state, national, or global issues	5.69	.38	.95	1.55