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The Impacts of Educational Attainment, Professional Interests, and Residency on Community Involvement and Civic Engagement

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The Impacts of Educational Attainment, Professional Interests, and Residency on Community Involvement and Civic Engagement

Cover Page Note

Special thanks to my faculty mentor, Dr. Jesse Richman

The Impacts of Educational Attainment, Professional Interests, and Residency on Community Involvement and Civic Engagement

Why are some people civically-engaged, actively participating in politics, outreach, and problem-solving of the community, state, or nation, while others are not? Many argue that it is imperative that citizens take an active role in politics and community matters in order to ensure that their voices are heard and to allow the political system to reflect the needs and desires of those who would be impacted; and yet, there are those who remain apathetic despite implied civic responsibility. This article explores the relationship between education and civic engagement. Generally speaking, people care more about issues that personally affect them, but if a person is disengaged and uninformed, he or she may not know about such issues or see the potential effects. More highly-educated people may be more inclined to follow politics and understand the implications of politics. This paper investigates whether there is a positive relationship between education level and civic engagement. Based on this information, further research could determine policy decisions and community initiatives that could help to increase civic responsibility and participation.

Intuition would indicate that people with higher educational attainment would be more politically active because they have a greater understanding of political happenings, political history, and how these events could impact them. This may also assume that significant changes in policy, such as tax laws or regulations, would have a direct effect on people with higher educational attainment because there is a direct effect of these policies on something they value, such as investment in a business or industry, income level, or the environment. Conversely, people with lower educational attainment could be assumed to have little stake in these policy changes, possibly due to less investment in a business, lower income, or fewer broad interests beyond day-to-day routine issues.

Civic engagement takes various forms including but not limited to voting, interest group membership and activity, volunteering, and being involved in local groups, such as committees and commissions, churches, or citizen coalitions and movements. In theoretical terms, the willingness of individuals to engage in civic activities have been evaluated based on rational choice, social capital and civic voluntarism. (Pattie, Seyd and Whiteley, 2003) This article examines a case study of civically engaged individuals in a specific suburban locality within Virginia with a medium-level population (50,000 to 100,000) in order to determine how characteristics of the members of this group – members who were predetermined

to be engaged in the community by virtue of expressing an interest in serving – compare in order to define an active citizen. This data was compared with Census data and Community Population Survey data to evaluate the specific sample group within the locality in comparison to the broader population of the locality and the national population.

If there is a direct relationship between educational attainment and civic engagement, then those with higher educational attainment will be involved in more civic activities, including but not limited to political groups, citizen groups, and volunteer work within the community through non-profit organizations and churches. However, the strength of the relationship between civic engagement and education is likely to be moderated by other factors. This relationship may be subject to change due to a person's interest in social sciences, politics, or cultural matters. These interests would likely increase a person's civic engagement level despite education level since these individuals would automatically be more interested in the community despite the attributes described relating to educational attainment: investments, income, and personal causes, such as the environment or public health. This relationship may also be subject to change due to a person's term of residency, as those who live longer in a community may have different views on the impacts of a political policy or action, causing these people to get more involved in the community and political activities.

KEY TERMS

For the purposes of this article, the following terms have been defined:

Civic Engagement, Civic Participation: individual and group participation in public or community activities or matters of public concern; activities include but are not limited to voting, volunteerism, community service learning, public participation, and community activism

Community Service Learning (CSL): experiential learning allowing students to participate in civic activities in order to provide equal benefit to the student and the community; this is differentiated from volunteerism or community service, which are intended to be mostly beneficial to the community

Educational Attainment: the highest level of education completed as defined by the U.S. Census Bureau; categorized by completion of a high school diploma, baccalaureate degree, master's degree, Juris Doctor, or doctorate

Political Socialization: the process of acquiring political attitudes; helps identify interest in politics and social sciences

Civically-Engaged Group: the specific group of citizens evaluated in this case study; the individuals who have been defined as being civically-engaged based on their desires to be involved in the community by submitting an application to serve on a local board or commission

REVIEW OF LITERATURE

The effect of education on civic engagement has been a topic of a vast amount of literature. While the majority of scholars contend that increased education has a positive effect on civic engagement, some claim the correlation is incidental and others disagree with how higher education is defined for analysis of this relationship. Those who claim there is a spurious relationship between higher education and increased citizen participation claim personal traits and political socialization of students as the drivers for civic responsibility.

Measuring Higher Education

A critical component of research is determining validity and ensuring that the right question is being investigated. In the literature, there are different interpretations of higher education, upon which the research correlating civic engagement is based. The basis for this measurement could mean the difference between a spurious relationship and a causal relationship between education and civic engagement. The phenomenon of “Brody’s Puzzle,” which is the puzzle of political participation in America, has been the subject of extensive research to identify why increased access to higher education is correlated with lower voter turnout over time. One possible solution, according to Burden (2009), is that the impact of education has not remained consistent and other factors are diluting its effects on civic engagement. (542).

Using the National Election Studies data, many outside factors, such as age, race, gender, can be examined, but unobservable characteristics still produce biases. In “Does Education Improve Citizenship,” Milligan, et al. (2004) attempted to control for state and year of birth by using laws related to child labor and mandatory school attendance to determine a relationship to educational attainment. Tenn (2005) argues in “An Alternative Measure of Relative Education to Explain Voter Turnout” that education should be measured relatively rather

than absolutely, and establishes results based on relative marginal increases in education by using an intra-birth-cohort measure of relative education, thus controlling for generational factors. (272). Tenn (2007) continues his research in “The effect of education on voter turnout” to determine the marginal return of each additional year of education on political participation by voting, and concludes that while each year does not contribute greatly in and of itself, the effects have a long-term component because the political norms establish generally continue throughout a person’s lifetime, long after their time as a student. In “Civic Engagement and Education: An Empirical Test of the Sorting Model,” David Campbell (2009) builds upon Tenn’s research using the sorting model on education to show the benefits of measuring relative education instead of absolute education. He also notes the importance of education in order to foster political tolerance and knowledge rather than just civic engagement.

Education and Civic Interests

One obvious external factor that impacts education and civic engagement is a personal interest in politics. A student who is more personally interested in civic activities and politics would naturally be more politically engaged and seek an increased knowledge of political issues, actions, and attitudes. Research by Lopes, et al. (2009) examined the effects of civic education on younger students in England. According to the models related to this research, the benefits of participation have the highest impact on anticipated future civic participation by the students, and no significant relationship was identified between future participation and knowledge of laws and politics (9).

In contrast, Hillygus (2005) examines three explanations, including the Civic Engagement Hypothesis, the Social Network Hypothesis and the Political Meritocracy Hypothesis. She explains how the Civic Engagement Hypothesis, which states that a person who is more educated about and is more able to understand politics will be more politically active, is inadequate since people have specialized in other areas, confirmed by the work of Lopes, et al. The alternative explanation, the Social Network Hypothesis, gives a better understanding by determining that people stratify themselves educationally and politically and therefore participate according to the norms of the social group. The final explanation, the Political Meritocracy Hypothesis, is perhaps the most compelling. As Hillygus states in “The MISSING LINK: Exploring the relationship between higher education and political engagement:”

[The Political Meritocracy Hypothesis] does not question that a positive correlation exists between education and participation, but it does dispute the conclusion that education *causes* democratic

behavior. According to this argument, there exists a spurious relationship between education and democratic behavior – intelligence produces both. (29)

James R. Simmons and Bryan Lilly (2010) of the University of Wisconsin-Oshkosh, used data from the National Survey of Student Engagement and the Current Population Survey to conclude that participation levels increased with the quality of the student (349). Essentially, brighter students are typically more civically engaged, irrespective of education.

Education, Community Service Learning, and Community Investment

Like the impact of education attainment on civic engagement, there are mixed reviews of the impact of community service learning on civic engagement. There are various case studies that indicate that community service learning (CSL) is beneficial to students, improves academic achievement, and encourages prolonged community service; however, there is also contrary data that indicates that CSL promotes anti-political attitudes that may not increase political activities such as voting. Duke, et al. (2009) hypothesized giving students a sense of the individual's impact on the broader community would lead to increased civic engagement. They state that increased connections in the family and community contexts predicted increased likelihood of voting, activity in civic groups, and volunteer work. Flanagan and Levine (2010) found that of the ten major indicators of political activism -- belonging to at least one group, attending religious services at least monthly, belonging to a union, reading newspapers at least once a week, voting, being contacted by a political party, working on a community project, attending club meetings, and believing that people are trustworthy, and volunteering -- only volunteerism has shown real increase over the past 30 years. According to these correlations, it would seem that the impact and importance of volunteerism has been instilled more greatly than other forms of political activism in the younger generation.

Currently, with assistance from White House encouragement, CSL is sweeping the education system with 68% of U.S. K-12 schools offering some type of service opportunities. (Spring, et al. 2008) Despite the fact that CSL has increased in K-12 schools and colleges in the United States, Damon (2008) states, "There has never been a time in American history when so small a proportion of young people between the ages of twenty and thirty have sought or accepted leadership roles in governmental or civic organizations." (174)

The split results of academic studies of CSL are astounding. According to Markus, et al. (1993), students randomly assigned to the service-learning

condition had a greater sense of helping others and Eyler, et al. (1997) identified increases in empathy and civic engagement. Denson, et al. (2005) analyzed national longitudinal data and determined that college students who participated in CSL were more politically active after six years than their peers who had not participated in CSL.

On the contrary, Hunter and Brisbin (2000) surveyed CSL students and found that participating in service learning did not significantly impact students' beliefs about politics or citizenship responsibilities. Community Service Learning may even be the "antidote to politics" as indicated by Battistoni (1997) and Boyte (1991), causing informed and activist CSL students to abstain from political and civic engagement.

Personal efficacy and benefit from civic engagement has been identified as having the highest correlations with political participation according to Lopes, Benton, and Cleaver, so it would seem to follow that teaching the benefits of civic responsibility to bright students who are destined to be more engaged should have positive effects. This was precisely the intention of Spiezio, et al. in "General Education and Civic Engagement: An Empirical Analysis of Pedagogical Possibilities." Based on the research of Duke, et al., the researchers designed an experiment integrating a "democratic classroom" into regular courses at four colleges while maintaining control group courses and a test-retest methodology to determine the civic aptitudes of students. The democratic classrooms were intended to give students a greater sense of civic responsibility and allow for a democratic approach to education. By placing the student into a democratic society where their personal efficacy could be asserted, the students were expected to increase their civic aptitude. However, Hillygus's Political Meritocracy Hypothesis became apparent. According to "General Education and Civic Engagement: An Empirical Analysis of Pedagogical Possibilities." :

[...] there were statistically significant differences between the civic attitudes of Democratic Academy and control group students from the very outset of the semester. In essence, students enrolled in Democratic Academy courses appeared to have already drawn a tentative connection among the existence of social problems, the welfare of their community, and the importance of keeping abreast of public affairs. Hence, prior to taking the class, Democratic Academy students tended to attach more significance to civic engagement than their counterparts in the control group courses. (280)

With all the intelligent, highly educated young people in today's society, why then is political engagement suffering? One explanation offered by Richard A. Settersten, Jr. and Barbara Ray (2010) is that young adults are taking longer to achieve the rites of passage associated with adulthood. In essence, young people are taking longer to become employed, married, and living independently than in the post-war era of the 1950s, thus stifling progress toward civic responsibility. Young adults are taking longer to become invested in stable adult lives in which they feel they can have an impact on the surrounding community. This vested interest is a key component of civic engagement. If an individual does not have the ability or interest to stay in a community long enough to have a feeling of commitment toward it and the need to improve it, then it is likely that the person will be less civically engaged.

No All-encompassing Answer

There is no perfect answer to the primary question of how or why education impacts civic engagement, and thus it is difficult to take the next step toward inspiring political and civic action in the next generation. The literature suggests a correlation between those with more educational opportunities and those who are more politically engaged, but this may be based on intellect, political interest and exposure, and investment in the community. These are factors that are difficult to widely determine and scale to evaluate the relative impact of each. The impacts of education on civic engagement are widely regarded as positive, but the explanation seems to be largely individualized. These factors, however, would be present in any random population, and therefore will be evaluated in the group of people surveyed. The people contributing to this research will be different in some respects based on the makeup of the community, but the citizens evaluated will all have the key characteristic of being driven to serve his or her community. Since civic engagement is already identified, the other factors described will be the focus of the analysis.

HYPOTHESES AND DATA

After completing the review of literature seen above I generated the following hypotheses:

When comparing members of the voting public, those who are more educated are more likely to be civically engaged in activities such as voting, volunteering, and other acts of political vocalization, than members of the voting public who are less educated. This is likely to be true because those who are more educated are more exposed to politics in a meaningful way. Political actions may impact them on a personal or professional level, thus creating a vested interest and

ideology. More educated people may be more likely to mobilize and act on matters of political and community interests than those who are not as educated. Theoretically, they are able to recognize the factors of rational choice and have the resources critical to civic voluntarism as defined by Pattie, et al. (2003).

Alternatively, educational attainment may have less to do with political and civic activity than individual interests and political socialization. These individuals may have a stake in a certain issue, such as a community matter, which outsiders or newer citizens may not fully engage themselves in understanding, which follows the concept of social capital and community-building. This also follows with the idea of rational choice for activism for individuals with a significant tenure in the area. When comparing members of the voting public, those who have a prior strong interest in politics and social sciences are more likely to be civically engaged in activities such as voting, volunteering, and other acts of political vocalization, than members of the voting public who are less interested in politics.

This is likely to be true because those who are interested in politics may follow the news and get involved in causes they care about despite their education level. The individuals who have an understanding and passion about politics are more likely to go out of their way to vote and understand issues. They would be familiar with ways of political engagement and grassroots efforts that can rally their friends and neighbors into political action. These people would have more of a vested interest in the political events and activities in the community and are more likely to be civically engaged in activities such as voting, volunteering, and other acts of political vocalization, than members of the voting public who feel less of a connection to their community.

This is likely to be true because with the responsibilities of adulthood, including completing college, living independently, steady employment, and marriage, it is understood that a sense of civic responsibility is implanted over time. There is an expectation that a young person would grow up, get a steady job, and become a productive member of society, which includes voting and civic engagement. Typically in today's society, this path to adulthood takes longer, thus decreasing the ratio of voters who turn out to the polls and those who are eligible. Usually a person must become settled into a place for a period of time in order to feel some vested interest in what happens in the community. This connection takes time, and with today's mobile and fast-paced society, it may be more difficult for individuals to stay in one place for a long enough period of time to learn about the issues and take action. The underlying interest may not exist for the transient military population or employees of international corporations who travel around the world constantly. While the global community is enriched by this behavior, the local, state, and even national communities suffer from these individuals' lack of engagement.

Data and Variables

Civic Engagement

This study compares those who voluntarily joined a local board application bank with the broader local community. The individuals who apply to serve on local boards, commissions, or committees have clearly met the criteria for being civically engaged, so the analysis will focus on identifying ways that these individuals differ from the locality's population as a whole. The board applications contain data related to education as well as information on other civic groups and activities in which the applicant has been involved.

Among those who applied for the application bank, I also constructed a "civic engagement index" as defined by Flanagan and Levine: belonging to a group, attendance at religious services, belonging to a union, reading newspapers, voting, being contacted by a political party, working on a community project, attending club meetings, and volunteering. This facilitates comparison among the members of this already civically-engaged group.

Interests in Social Sciences

The literature suggests that some individuals are predisposed to civic engagement because of an innate interest in politics and the social sciences. While this is a characteristic that is difficult to measure with a dataset like the Current Population Survey, this can be determined to a certain degree from the applications to serve on boards, commissions, or committees. This data will be compiled in relation to the specific locality by reviewing the occupations, degree subjects, and other civic involvement of the applicants. This may not be entirely conclusive, but this may be the best way to evaluate a person's education and interests in an unbiased way. The activities and achievements that the person has already accomplished have been recorded on the forms without prejudice.

There will be some difficulty assessing this data in relation to the locality's population. Some rough data may be available, but it may prove to be impossible to determine the entire locality's interest level in social sciences.

Civic Responsibility and Vested Interests in a Community

The Current Population Survey has very useful data related to civic engagement, such as participation in groups or organizations, and various demographic data, including marital status and how long the respondent has lived in the household. According to the literature, these rites of passage are very important to instilling a sense of community responsibility and civic duty, thus leading to voting and civic involvement. Pattie, et al. attribute the concept of system benefits as a result of a sense of duty to the rational choice theory of civic engagement. Using property records, the household tenure of the members in the civically-engaged group can be determined to evaluate if living in one place contributes to creating a vested interest in a community.

ANALYSIS

Table 1 examines educational differences between the civically-engaged group of community board volunteers and the broader population of the city. There is a strong relationship between higher education and civic engagement. Over 82% of the civically-engaged group had attained a bachelor's degree or higher, in comparison to the locality's 1999 Census Fact Sheet percentage of 41.5. (There is some discrepancy since this data is 10 years old and newer census data would make a better comparison when it becomes available.) The difference in education levels between the 1999 census fact sheet for the community and the civically-engaged group is statistically significant ($X^2 = 100$, $p < 0.001$), indicating that there is almost no chance that these differences in educational attainment could have arisen by chance.

Table 1. Educational Attainment Comparison

Educational Attainment	1999 Census Fact Sheet		Civically-engaged Group	
	Count	Percentage	Count	Percentage
Less than 9th grade	976	2.9 %	0	0 %
9th to 12th grade, no diploma	2,679	7.9 %	0	0 %
High school graduate (includes equivalency)	7,099	20.9 %	7	7.1 %
Some college, no degree	7,183	21.1 %	6	6.1 %
Associate degree	1,965	5.8 %	4	4.0 %
Bachelor's degree	8,449	24.8 %	32	32.3 %
Graduate or professional degree	5,691	16.7 %	50	50.5%
Total Population 25 years and over	34,042	100 %	99	100 %

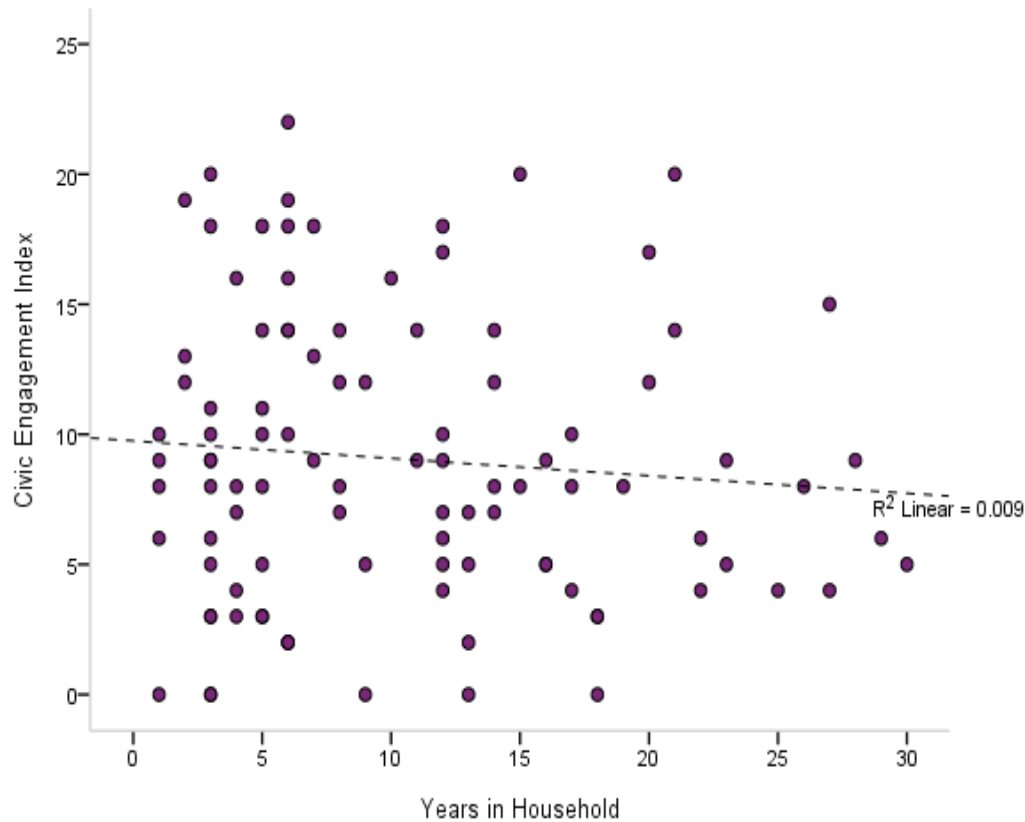
Among members of the civically-engaged group, however, there was at best a weak positive relationship between educational attainment and civic engagement, and the resulting correlation coefficient (Pearson r) was 0.194 with a significance level of 0.055, just above the threshold, in a two-tailed test; considering the sample size, the significance level is likely to be negligible. This suggests that education is not a clear indicator of a person's level of civic engagement when evaluating the members of the board application bank.

However, there still seems to be a relationship, and further investigation is warranted.

In order to measure a person's interest in social sciences to determine if this may influence civic engagement, I evaluated the degree pursued by the members of the civically-engaged group. This was an imperfect measure, since one may have interests that were not pursued academically and those who did not attain a bachelor's degree, graduate degree, or professional degree did not have such data. Among members of the civically-engaged group, there was no association between degree attained and the extent of civic engagement. An analysis of degree major choice, social sciences or natural sciences, revealed a Pearson r of 0.030, and even weaker relationship, and the significance level was well above the 0.05 probability, therefore the null hypothesis cannot be rejected as this could happen by chance about 80% of the time.

There is at best a modest relationship between vested interest in the community (as measured by years at current residence) and civic engagement. For the community as a whole the median time at current residence is 5 years, as compared to the median time at residence of 8 years among the civically-engaged group. (City-Data.com, 2009) This difference is statistically significant in a non-parametric difference of medians test ($X^2= 9.8$, $p < 0.01$). However, there were members of the civically-engaged group that had lived in a household as few as one year and as many as 30 years. The mean value was about ten years, and most often individuals lived in their homes for three years.

Among members of the civically-engaged group, there is no relationship between time of residence and the Civic Engagement Index. Figure 1 shows a scatterplot of years at current residence and Civic Engagement Index value for members of the civically-engaged group. There is no apparent relationship between the variables, suggesting that among those who are civically engaged, years at current residence has little relationship to civic engagement. This data seems to contradict the conclusions of Pattie et al. about social capital: "Those who are settled in an area should also have more opportunity to build social capital than those who are recent arrivals."(445). Essentially, the idea of a citizen establishing a homestead and trust within the community are not critical to civic involvement, and can be enhanced by political socialization. In practical terms, however, it is easy to look around many neighborhoods or small communities and see that the longer-term residents have achieved a level of trust and authority in the community that may not be given to newer neighbors.

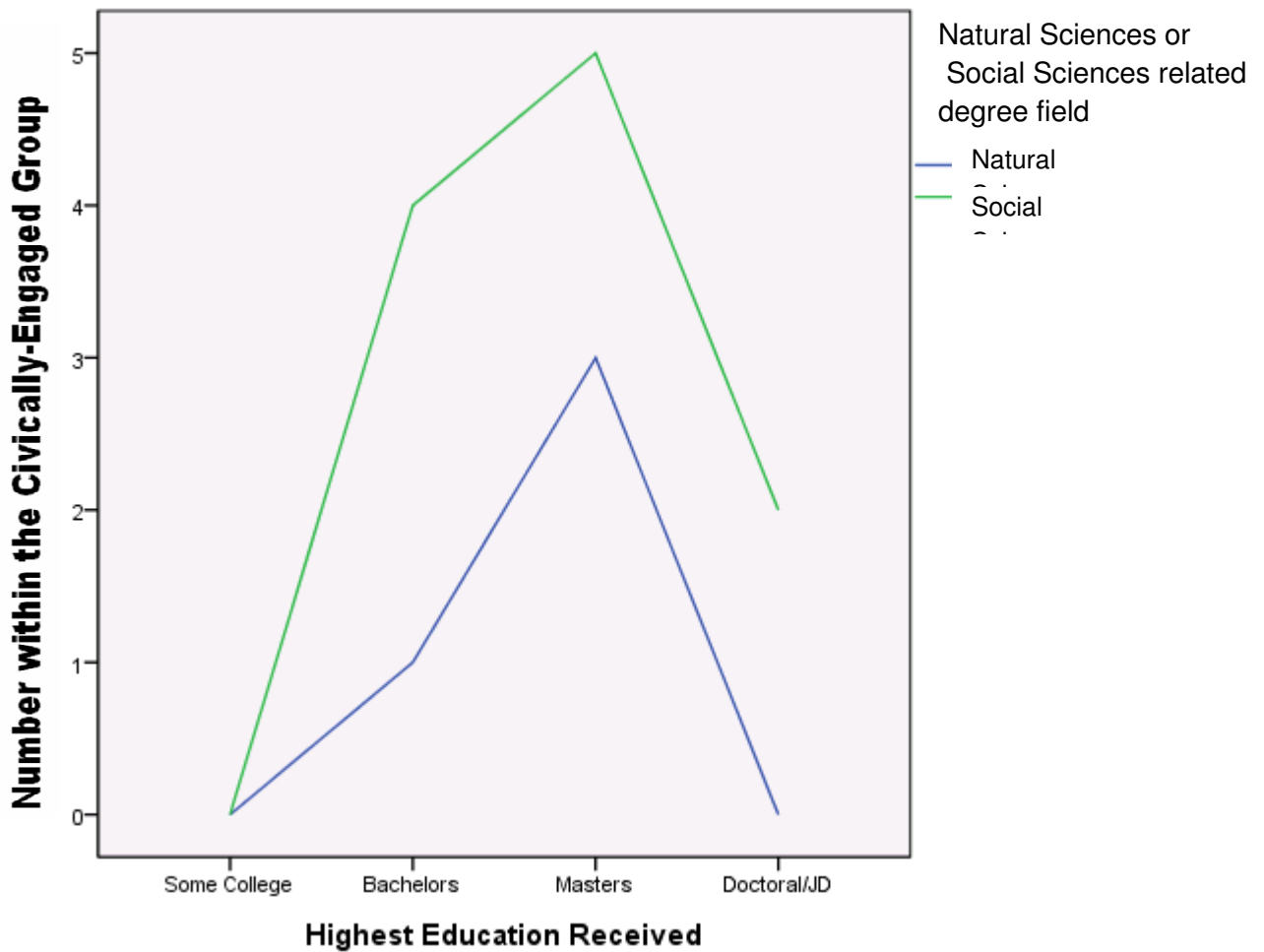
Figure 1: Civic Engagement Level by Years in Household

Controlled Comparisons

In order to test any possible spurious relationship that may have been observed, controlled comparisons were conducted using the number of highly civically engaged people in comparison to educational attainment while controlling for degree-related fields and the resulting data indicated that there is usually an additive relationship between social science degree majors and education, with the number of highly-engaged individuals peaking at the Master's degree level. There was a significant decline in the number of highly civically engaged people at the Doctorate/JD level of education. This may be due to increased job responsibilities or other factors that could not be determined based on my data. Educational attainment is a test of the theoretical model of civic voluntarism, which is defined based on resources, including affluence and education. In *Voice and Equality: Civic Voluntarism in American Politics* Verba, et al. (1995) define time as a critical resource to civic engagement, which may

help define why civic engagement tapers off at the highest levels of educational attainment. This would be a way to expand the research. The relationship between these variables is graphed in Figure 2.

Figure 2: Civic Engagement Levels by Degree Field



CONCLUSIONS AND IMPLICATIONS

The civically-engaged group I studied had higher levels of education, and more years at the current residence, than the overall population. This is consistent with

arguments that education and connection to the community foster civic engagement. However, further analysis of the sample data showed a weak correlation within the civically-engaged group – education, degree type, and years at current residence do not explain much variation in the degree of civic engagement among those who are already sufficiently engaged to have volunteered to serve on community boards. There seemed to be an additive relationship between educational attainment and degree major type, with social sciences majors being more civically engaged. However, this trend reversed at higher levels of education.

Individual civic engagement choices are vital to understanding political activity on the aggregate scale. As illustrated with the findings related to length of residency in an area and civic engagement, there is no constant factor that drives civic engagement for everyone. Essentially, one does not have to live in a place for any length of time in order to be civically engaged. This seems to imply that civic engagement is an individual characteristic that will travel across jurisdictional boundaries and manifest itself wherever a person lives. There are several limitations with this measurement, as some individuals may have lived in the area and moved to new neighborhoods, such as age-restricted retirement communities. There are also individuals who may have grown up in the community, left for some time, and then returned. There are also circumstances where a person may have rented a household and more recently purchased a home. Furthermore, different criteria may be established to determine a true measure of how vested a person is in a community. Additional research could examine criteria such as individuals who have children in schools, those who have a homestead of some sort, acreage owned by individuals, and other similar variables.

Another way to expand this investigation would be to evaluate income level as a control variable. Typically, those with lower educational attainment achieve a lower income, but different outlets for civic engagement exist for people of different income levels. These people may also be less likely to be involved in political or government-based groups, but more likely to participate in organizations such as churches or relief efforts. Income data was not available with the information from the data sheets; however, examining property information could provide an assessment of real property owned by the individual. This assessment would be limited to those individuals who own property and would make assumptions about debt ratios and income, but it could provide some insight about the civic activities of people among the different levels of affluence in the community.

Understanding individual civic engagement is critical to creating a society that makes good decisions and incorporates the voices of its citizens. Without the ability to encourage civic engagement on the individual level, policymakers are almost certain to miss a critical component of the decision-making process by making assumptions about a silent constituency. Once individual civic engagement can be articulated, steps can be made to translate community involvement with political activity, ensuring that the voices that had previously been left out of political analysis due to lack of input will finally be heard.

BIBLIOGRAPHY

- Battistoni, R. 1997. "Service-learning and democratic citizenship." *Theory Into Practice*, 36(3): 150–156.
- Boyte, H. 1991. "Community service and civic education." *Phi Delta Kappan*, 72: 765– 767.
- Burden, Barry C. 2009. "The dynamic effects of education on voter turnout." *Electoral Studies*, 28:540-549.
- Campbell, David E. 2009. "Civic Engagement and Education: An Empirical Test of the Sorting Model." *American Journal of Political Science*, 53: 771-786.
- Damon, W. 2008. *The path to purpose*. New York: Free Press.
- Denson, N., Vogelgesang, L., & Saenz, V. 2005. "Can service learning and a college climate of service lead to increased political engagement after college?" *Higher Education Research Institute*. UCLA. Retrieved from www.gseis.ucla.edu/heri/understanding_service_learning.html
- Duke, Naomi M., Carol L. Skay, Sandra L. Pettingell, and Iris W. Borowsky. 2009. "From Adolescent Connections to Social Capital: Predictors of Civic Engagement in Young Adulthood." *Journal of Adolescent Health*, 44: 161-168.

- Eyler, J., Giles, D., & Braxton, J. 1997. "The impact of service- learning on college students." *Michigan Journal of Community Service Learning*, 4: 5-15.
- Flanagan, Constance and Peter Levine. 2010. Civic engagement and the transition to adulthood. *The Future of Children*, 20(1): 159-179.
- Hillygus, D. Sunshine. 2005. "The MISSING LINK: Exploring the relationship between higher education and political engagement." *Political Behavior*, 27: 25-47.
- Hunter, S., & Brisbin, R. 2000. "The impact of service learning on democratic and civic values." *PS: Political Science and Politics*, 33(3): 623-626.
- Lopes, Joana, Thomas Benton, and Elizabeth Cleaver. 2009. "Young people's intended civic and political participation: does education matter?" *Journal of Youth Studies*, 12: 1-20.
- Markus, G., Howard, J., & King, D. 1993. "Integrating community service and classroom instruction enhances learning: results from an experiment." *Education Evaluation & Policy Analysis*, 15: 410-19.
- Milligan, Kevin, Enrico Moretti, and Philip Oreopoulos. 2004. "Does education improve citizenship? Evidence from the United States and the United Kingdom." *Journal of Public Economics*, 88: 1667-1695.
- Pattie, Charles, Patrick Seyd, and Paul Whiteley. 2003. "Citizenship and Civic Engagement: Attitudes and Behavior in Britain." *Political Studies*, 51: 443-468.
- Settersten, Jr., Richard A. and Barbara Ray. 2010. "What's going on with young people today? The Long and Twisting Path to Adulthood." *The Future of Children*, 20: 19-41.
- Simmons, James R. and Bryan Lilly. 2010. "The University and Student Political Engagement." *Political Science & Politics*, 43: 347-349.
- Spiezio, Kim E., Kerrie Q. Baker, and Kathleen Boland. 2006. "General Education and Civic Engagement: An Empirical Analysis of Pedagogical Possibilities." *Journal of General Education*, 54 (4): 273-292.

Spring, Kimberly, Robert Grimm, and Nathan Dietz. 2008. *Community Service and Service Learning in America's Schools*, Washington, D.C.: Corporation for National and Community Service.

Tenn, Steven . 2005. "An Alternative Measure of Relative Education to Explain Voter Turnout." *The Journal of Politics*, 67: 271-282.

Tenn, Steven. 2007. "The effect of education on voter turnout." *Political Analysis*, 15:446-464.

Verba, S., Schlozman, K. L. and Brady, H. E. 1995. *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge MA: Harvard University Press.

APPENDIX

Civically-Engaged Group Characteristics

	N	Range	Min	Max	Mean	Std. Dev	Var
Number of Activities	99	15	0	15	4.95	3.281	10.763
Index of civic engagement based on activities	99	22	0	22	9.04	5.503	30.284
Years in Household	99	29	1	30	10.57	7.624	58.126
Natural Science (1) or Social Science (2) related degree field	76	1	1	2	1.66	.478	.228
Highest Education Received (1=HS; 2=Some College; 3=Bachelor's; 4= Master's; 5= Doctorate/JD)	99	4	1	5	3.39	1.067	1.139
Valid N (listwise)	76						

s

Index of civic engagement based on activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	6	5.9	6.1	6.1
	2	3	3.0	3.0	9.1
	3	7	6.9	7.1	16.2
	4	6	5.9	6.1	22.2
	5	9	8.9	9.1	31.3
	6	5	5.0	5.1	36.4
	7	5	5.0	5.1	41.4
	8	10	9.9	10.1	51.5
	9	9	8.9	9.1	60.6
	10	6	5.9	6.1	66.7
	11	2	2.0	2.0	68.7
	12	5	5.0	5.1	73.7
	13	2	2.0	2.0	75.8
	14	7	6.9	7.1	82.8
	15	1	1.0	1.0	83.8
	16	3	3.0	3.0	86.9
	17	2	2.0	2.0	88.9
	18	5	5.0	5.1	93.9
	19	2	2.0	2.0	96.0
	20	3	3.0	3.0	99.0
	22	1	1.0	1.0	100.0
	Total	99	98.0	100.0	
Missing	System	2	2.0		
Total		101	100.0		