Protest as one political act in individuals’ participation repertoires: Latent class analysis and political participant types*

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ABSTRACT

This study advances research on the role of protest in individual-level participation repertoires by examining how latent class analysis can be used to identify distinctive types of political participants. This methodological approach requires shifting researchers’ traditional theoretical and analytical focus on protest as a single political act to the ways in which political actors combine protest with other political behaviors. From a theoretical perspective, the study examines the increased salience of research on the causes and consequences of protest in the context of individuals’ broader participation repertoires. From a methodological perspective, an illustrative analysis is conducted using the 2016 American National Election Studies (ANES) survey to test theoretical expectations about the relationship between protest and civic duty. The study concludes with a discussion of how latent class analysis can be used to advance research on protest as one political act in individuals’ broader repertoires of political participation.

Keywords: protest; participation repertoires; political participant types; latent class analysis; civic duty

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In a widely viewed speech given during the 2016 U.S. Presidential election campaign, former President Barack Obama urges rally attendees: “Don’t boo – vote!” The timing of this call to engage in a specific political behavior immediately followed the crowd’s boisterous booing of the Republican candidate, Donald J. Trump, in a campaign that ended in Trump’s victory over his Democratic rival, Hillary Rodham Clinton.¹

This viral campaign moment clearly had the rhetorical intention of mobilizing voter turnout, regardless of whether voters also continued to loudly protest against the opposition. For scholars of political behavior, however, this vivid campaign moment puts a spotlight on an increasingly important theoretical and methodological research question, namely: How do individuals combine protest with other political acts in their personal repertoire of political participation? Research on this topic has become more salient with the accumulation of evidence highlighting the importance of better understanding the causes and consequences of protest in contemporary democracies.

From a theoretical perspective, the current study examines the role of protest in individuals’ broader participation repertoires, and the distinctive socio-demographic characteristics of different types of political participants. From a methodological perspective, an illustrative latent class analysis (LCA) is conducted using the 2016 American National Election Studies (ANES) survey to test expectations about how individuals’ participation repertoires relate to their sense of civic duty. In an era characterized by multiple governing crises and worldwide protest, this study examines how

¹ For one video of this viral moment, see PBS News Hour, posted July 27, 2016; last accessed February 26, 2021
https://www.youtube.com/watch?v=qeuZvGhwLiM&feature=youtu.be
researchers can use LCA to advance theory and analysis of expanding repertoires of political participation.

**Protest as one political act in individuals’ participation repertoires**

Scholars of political behavior have long recognized the importance of studying protest, and a vibrant line of research on this political activity continues to yield new insights. For example, recent advances include studies on methodological approaches for investigating street protest (Fisher et al. 2019), the future of nonviolent resistance (Chenoweth 2020), the relationship between dissatisfaction and protest (Christensen 2016), and regional distinctions in protest and ideology (Borbáth and Gessler 2020). These studies represent an extensive literature on protest that focuses on this specific political act as worthy of close attention within the broader study of political participation. Yet, the empirical relationship between protest and other acts of political behavior—particularly how individuals combine protest with other acts—has received less attention.

While empirical large-n survey research on political behavior has focused predominantly on the act of voting, scholars began paying close attention to diverse acts of political participation beyond the electoral arena already in the 1970s (e.g., Barnes and Kaase 1979; Verba and Nie 1972). Subsequent research has affirmed the increased prevalence over time of non-electoral participation in a variety of political acts and in diverse contexts (e.g., Albacete 2014; Copleand and Boulianne forthcoming; Campbell and Wolbrecht 2020; Dalton 2008, 2015; Giugni and Grasso 2018; Grasso 2016; Ohme, de Vreese and Albæk 2018; Oser and Boulianne 2020; Schozman, Verba and Brady 2010; Theocharis and van Deth 2018; van Deth 2020; Verba, Schlozman and Brady 1995;
Vrábliková 2014, 2016; Xenos, Vromen and Loader 2014). The increased prevalence of political participation beyond the electoral arena highlights the importance of developing theories and research designs that consider how individuals combine the full range of political behavior in their personal repertoires of participation—from the most common act of voting, to the relatively rare act of protest.

Most research on political behavior has focused on the socio-demographic and attitudinal determinants of various political acts. The study of participatory inequality is one of the defining areas of scholarship on political participation, and this research has found consistent evidence of increased participation among socio-demographically advantaged individuals (Marien, Hooghe and Quintelier 2010; Oser, Hooghe and Marien 2013; Quaranta 2018; Schlozman, Brady and Verba 2018; Schradie 2018). Research on the normative and attitudinal determinants of different types of participation has also been a mainstay of research on political behavior, beginning with Campbell et al.’s (1960) classic study, The American Voter, and continuing to more recent research on citizenship norms (e.g., Dalton 2008; 2015; Loewen and Rubenson 2019).

In addition, researchers have produced a growing body of evidence related to the consequences of political behavior beyond the electoral arena, with recent studies indicating that a variety of political behaviors influence political representation and democratic responsiveness. For example, in U.S.-focused research, Gillion’s (2012) study of minority protest between 1961 and 1991 revealed the impact of this activity on congressional roll call votes; and Leighley and Oser (2018) showed that in 2012, participation beyond voting enhanced congruence between participants and their representatives for the highly partisan and salient policy issue of health care reform.
Examples of recent cross-national research on this topic include Htun and Weldon’s (2012) findings that women’s mobilization in autonomous social movements has affected policies to combat violence against women in 70 countries over four decades; and Rasmussen and Reher’s (2019) empirical results showing that civil society engagement has strengthened the relationship between public opinion and public policy across 20 policy issues in 30 European countries. These studies represent a growing body of literature that illustrates how scholars are increasingly tracing the linkages between a variety of political acts and representational outcomes (Ansolabehere and Kuriwaki forthcoming; Dassonneville et al. forthcoming; Esaiasson and Wlezien 2017; Hooghe et al. 2019; Hooghe and Oser 2016; Wasow 2020; Wouters and Walgrave 2017).

As McAdam and Tarrow (2010) noted in their examination of the reciprocal relationship between elections and social movements, research on different types of political acts is often conducted in separate siloes, with experts on voting and experts on protest engaging in separate scholarly conversations. Informed by Charles Tilly, social movement scholars have often used the term “repertoire” to describe the broad range of individuals’ political behavior (Alimi 2015; Bojar and Kriesi 2021; Gade 2020; Tilley 1995, 2006). However, this actor-oriented conceptual approach is not common among scholars who use large-n survey research to analyze political behavior. The following discussion of latent class analysis outlines the theoretical and methodological importance of shifting the unit of analysis from separate political acts (e.g., analysis of a single political behavior such as voting or protest) to the ways in which political actors combine multiple political behaviors.
Latent class analysis: Identifying participation repertoires

In one of the first large-n survey studies of political participation in the United States, Verba and Nie argued for the importance of studying different types of participants, and discussed the technical limitations (at the time) of objectively selecting optimal models (1972: 390-402). In recent years, however, latent class analysis (LCA) has emerged as a widely used technique for conducting model-based clustering in the social sciences. LCA empirically identifies groups of respondents who share similar combinations of responses on multiple indicators (Ahlquist and Breunig 2012; Hagenaars and McCutcheon 2002).

Social science researchers have used LCA to analyze a wide variety of topics, including tolerance (McCutcheon 1985; Sniderman et al. 1989), party support (Breen 2000), opinion-changing behavior (Hill and Kriesi 2001), citizenship norms (Hooghe and Oser 2015; Hooghe et al. 2016; Oser and Hooghe 2013; Sampermans et al. forthcoming); revolutionary groups (Beissinger 2013), technocratic attitudes (Bertsou and Caramani 2020), nationalist sentiment (Bonikowski and DiMaggio 2016), democratic ideals (Hooghe and Oser 2018; Hooghe et al. 2017; Oser and Hooghe 2018a, 2018b), and political donor types (Rhodes, Schaffner, and La Raja 2018). Although LCA is not yet widely used for the study of political participation repertoires, a handful of recent studies have used the technique to identify distinct types of political participants (e.g., Alvarez, Levin and Núñez 2017; Johann et al. 2020; Keating and Melis 2017; Oser 2017; Oser et al. 2013; Oser et al. 2014; Steenvoorden 2018).

One of the main advantages of LCA relative to traditional cluster analysis is that probabilistic estimation yields objective goodness-of-fit statistics. These measures serve as reliable indicators for the assessment of the optimal number of latent classes (Raftery 1995;
The Bayesian Information Criterion (BIC) is widely used for this purpose, with a smaller BIC indicating better model fit (Nylund, Asparouhov, and Muthén 2007). Two key results inform the interpretation of findings. First, conditional probabilities of each latent class indicate the likelihood of providing a positive answer on all indicators, given that the respondent belongs to a specific latent class. In the current study, the conditional probabilities indicate the likelihood that respondents in each participant type engage in each of the political acts. Second, the probability that individual respondents are members of each latent class is estimated, which allows researchers to analyze individual-level correlates of membership in the distinctive latent classes. Further, the size of each latent class is obtained, showing the prevalence of different types in the population.

It is useful to contextualize this illustrative analysis by noting that two main technical obstacles have hindered the widespread use of LCA for investigations of political participation. First, instruction in latent class analysis is not yet common in the graduate school training of students who research protest and political participation. Second, the statistical software packages that empirical researchers of political behavior have most commonly used are either not currently equipped to conduct LCA, or include recently developed modules that do not yet have the capacity to efficiently analyze multiple indicators from complex datasets. While statistical and political methodologists are increasingly advancing sophisticated adaptations of latent class analysis that use different approaches for addressing latent variable measurement error (Di Mari and Bakk 2018; Vermunt 2010), LCA is not yet a common approach among substantively-oriented students of protest and political behavior. These technical obstacles have become less salient in
recent years due to both increased enrollment in specialized methods workshops (in addition to standard graduate school training), and to recent advances in several of the software platforms that conduct LCA.

This methodological background highlights the usefulness of conducting an illustrative analysis to clarify the theoretical and methodological underpinnings of this approach. Thus, the following section shows how LCA can advance scholarship on the role of protest in expanding repertoires of political participation. The analysis presented in the current study was conducted using Bayesian LCA in Latent Gold software (version 5.1), setting the Bayes constant to 1, which avoids boundary solutions that can appear due to empty cells. Since LCA’s use of maximum likelihood estimation can yield boundary solutions for complex data that may produce unstable results, the use of Bayesian priors on the estimator can overcome this problem. The socio-demographic correlates of the latent classes were analyzed in Stata 15.1 via multinomial logistic regression analysis, with the dependent variable of the modal classification of respondents into latent classes.²

² See Supplementary Materials for further documentation of the analysis. As software options for conducting LCA are rapidly advancing, the specific syntax used for this analysis will likely be superseded by the time the article appears in print. In relation to the software programs that are commonly used by political behavior researchers, SPSS is not currently equipped to conduct LCA; and neither Stata nor Mplus include an option for imposing Bayesian priors on the estimator, and thus models in these software programs do not converge for the data analyzed in the current study. The BayesLCA package in R is able to impose Bayesian priors on the estimator, but it does not yet allow the use of sampling weights which are necessary for the analysis of ANES data. The software capabilities of these and other programs to facilitate the use of LCA are likely to continue to advance over time.
Illustrative analysis: Protest as one political act in participation repertoires

As an illustrative analysis of the study of protest as one political act in individuals’ participation repertoires, the current study investigates the relationship between distinctive types of political participants and their socio-demographic correlates. A theoretically informative correlate of participant types to focus on for the purpose of this illustrative analysis is individuals’ sense of “duty,” which received early attention in Almond and Verba’s (1963) cross-national survey research on civic attitudes. Research on civic attitudes has expanded to encompass more recently prevalent norms, alternately referred to as “engaged” (Copeland and Feezell 2017; Dalton 2008, 2015), “critical” (Geissel 2008; Norris 1999, 2011), “assertive” (Dalton and Welzel 2014; Welzel et al. 2005), “expressive” (Bennett 2012; Lane 2020) or “self-actualizing” (Bennett 2008; Shehata et al. 2016). Even as these norms have become increasingly prevalent, research has found that duty has remained a meaningful civic attitude worldwide (Blais and Daoust 2020; Campbell 2006; Feitosa, forthcoming; Feitosa and Galais 2020; Hooghe and Oser 2015; Hooghe et al. 2016; Hur 2020; Oser and Hooghe 2013).

Examples of recent research on the continued importance of duty for understanding political behavior include multi-wave panel studies that generated evidence of sizeable causal effects of civic duty on voter turnout (Blais and Achen 2019; Galais and Blais 2016). A variety of experimental studies have also clarified the causal impact of civic duty on voting (Davenport et al. 2010; Feitosa, Stiers and Dassonneville, forthcoming; Gerber, Green and Larimer 2008, 2010; Gerber et al. 2016). Although this line of research continues to document a strong duty-voting connection, some longitudinal studies have indicated that civic duty norms have become somewhat less prevalent over time, which
seems to have contributed to declining turnout rates (Blais, Gidengil, and Nevitte, 2004; Blais and Rubenson 2013; Fieldhouse, Tranmer, and Russell 2007). These findings show that duty is an important attitudinal determinant of voting, as well as an important focus for future research that seeks to assess the causes of changing turnout levels over time.

An unresolved puzzle emerges, however, when synthesizing prior findings that show a consistently strong association between civic duty and the specific political act of voting, with the findings on the relationship between duty and other political acts. A comprehensive cross-national investigation of the relationship between civic norms and participation patterns concluded that those with a high level of civic duty engage in a variety of political behaviors in addition to voting, including protest (Bolzendahl and Coffée 2013: 54). In contrast, a study that focused primarily on the relationship between individuals’ duty to vote and voting behavior found strong evidence for this relationship—but no evidence that duty matters for participation beyond voting, based on an analysis of indicators such as talking about politics and donating (Blais and Achen 2019: 488-490). Blais and Achen thus observed that “duty affects only turnout, not other aspects of political participation” (2019: 490). These studies follow the common practice in the field of using either single political acts (e.g., voting, donating), or additive indices of similar types of acts (e.g., political activism) as distinct dependent variables in separate regression models.

The current analysis assesses these seemingly contradictory findings by investigating the relationship between expectations about duty and individuals’ broader repertoires of participation. Empirical validation of Blais and Achen’s (2019) conclusion would be evident if findings show that duty is a predictor of repertoires that are characterized by high levels of voting, regardless of the additional activities in the
reertoire. Alternatively, affirmation of Bolzendahl and Coffé’s (2013) study would be evident if duty is a predictor of repertoires that are characterized by high levels of engagement in multiple political acts, including voting. The analysis assesses these seemingly contradictory expectations using a methodological approach that allows researchers to investigate the relationship between civic duty and individuals’ broader repertoires of political participation.

Data
The 2016 American National Election Studies survey is a useful dataset for testing these expectations because it contains rich data on both political behavior and civic duty (American National Election Studies, University of Michigan, and Stanford University 2017a, 2017b). The ANES is one of the most widely used datasets for the study of political behavior, and is often considered the gold standard for empirical research on this topic (Robison et al. 2017). The political behavior questions in the ANES ask about a diverse range of political activity, including electoral-oriented acts as well as participation beyond the electoral arena.

Table 1 shows the prevalence of each participation indicator used in the analysis. Notably, the classic protest indicator—joining a protest march—is the least commonly reported political act (3.3%) among the indicators used in the analysis. The ANES includes an additional indicator related to protest: “went to political meetings, rallies, or speeches,” which is also relatively uncommon (7.7%). The most common act was voting in the general election, followed closely by voting in Senate and House races. As with all survey data, the responses for voting are likely biased toward higher levels of turnout than the general
population due to sampling and social desirability bias (Selb and Munzert 2013). After voting, some of the most commonly reported political acts are those that have become more prevalent recently, such as political consumerism (57.6%), and using Facebook or Twitter for political communication (34.5%). Electoral-oriented acts beyond voting are less common, such as contacting a U.S. Representative or Senator (10.8%), or working for a political party or candidate (3.5%).

Table 1. Political participation indicators used in the analysis

<table>
<thead>
<tr>
<th>Activity</th>
<th>Participated (%)</th>
<th>Activity labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voted in general election</td>
<td>83.3</td>
<td>Vote gen.</td>
</tr>
<tr>
<td>Voted in U.S. Senate race</td>
<td>74.7</td>
<td>Vote Senate</td>
</tr>
<tr>
<td>Voted in U.S. House of Representatives race</td>
<td>73.0</td>
<td>Vote House</td>
</tr>
<tr>
<td>Bought or boycotted product or service</td>
<td>57.6</td>
<td>Pol. cons.</td>
</tr>
<tr>
<td>Talked with anyone about voting for or against a campaign</td>
<td>49.1</td>
<td>Persuade</td>
</tr>
<tr>
<td>Sent a message on Facebook/Twitter about a political issue</td>
<td>34.5</td>
<td>Social media</td>
</tr>
<tr>
<td>Signed a petition in past 12 months</td>
<td>25.0</td>
<td>Petition</td>
</tr>
<tr>
<td>Donated to party, campaign or campaign-related group</td>
<td>15.2</td>
<td>Donate</td>
</tr>
<tr>
<td>Wore a campaign button; posted a sign or bumper sticker</td>
<td>12.9</td>
<td>Sign</td>
</tr>
<tr>
<td>Contacted a U.S. Representative or Senator</td>
<td>10.8</td>
<td>Contact</td>
</tr>
<tr>
<td>Went to political meetings, rallies or speeches</td>
<td>7.7</td>
<td>Pol. events</td>
</tr>
<tr>
<td>Worked for a party or candidate</td>
<td>3.5</td>
<td>Party work</td>
</tr>
<tr>
<td>Joined a protest march</td>
<td>3.3</td>
<td>Protest</td>
</tr>
</tbody>
</table>

Source: American National Election Survey 2016 (n=2,409). Entries are the percentage of respondents who reported voting in the last election, or engaging in the specified non-voting activity in the past 12 months. Activity labels are used to represent each variable in Figure 1.

With regard to the measurement of duty, despite early documentation of the empirical importance of civic duty for understanding electoral behavior (e.g., Campbell, Gurin and Miller 1954), the topic has received sporadic attention over time in the ANES survey instrument (for a historical review of survey questions related to duty, see Blais and Achen 2019; Blais and Galais 2016; Goodman 2018). An important recent advance for scholarship on civic duty is research that has improved the operationalization of this concept (Blais and Achen 2019; Blais and Galais 2016). A new battery of questions based
on this research was first implemented in the 2016 American National Election Studies survey. The current analysis uses measures of duty based on responses to the ANES 2016 question, which was designed to avoid social desirability bias.

The question is as follows (ANES 2017a, pp. 35-36): “Different people feel differently about voting. For some, voting is a duty—they feel they should vote in every election no matter how they feel about the candidates and parties. For others, voting is a choice—they feel free to vote or not to vote, depending on how they feel about the candidates and parties. For you personally, is voting mainly a duty, mainly a choice, or neither a duty nor a choice?” A subsequent question then assessed the strength of the choice-duty selection, as follows: “How strongly do you feel that voting is a duty/choice? 1. Very strongly 2. Moderately strongly 3. A little strongly.” Combined, these questions yield a seven-category variable that ranges from strong choice (1) to strong duty (7).

Using LCA to identify participant types
To identify distinctive types of political participants, LCA was used to analyze the ANES sample. The latent class analysis model fit statistics shown in Table 2 identify five classes as the optimal number of classes to fit the data. As noted, the Bayesian Information Criterion (BIC) is widely used to assess model fit, with the smallest value indicating optimal fit.
Table 2. Latent class analysis model fit statistics

<table>
<thead>
<tr>
<th></th>
<th>BIC(LL)</th>
<th>CAIC(LL)</th>
<th>L²</th>
<th>Class.Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Class</td>
<td>27444</td>
<td>27457</td>
<td>6776</td>
<td>0.00</td>
</tr>
<tr>
<td>2-Class</td>
<td>23924</td>
<td>23951</td>
<td>3147</td>
<td>0.00</td>
</tr>
<tr>
<td>3-Class</td>
<td>22674</td>
<td>22715</td>
<td>1788</td>
<td>0.06</td>
</tr>
<tr>
<td>4-Class</td>
<td>22521</td>
<td>22576</td>
<td>1528</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>5-Class</strong></td>
<td><strong>22448</strong></td>
<td><strong>22517</strong></td>
<td><strong>1346</strong></td>
<td><strong>0.10</strong></td>
</tr>
<tr>
<td>6-Class</td>
<td>22465</td>
<td>22548</td>
<td>1254</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Note: LCA of ANES 2016, (n=2,409). Entries are test statistics for latent class models that identify one or more classes of respondents; the optimal model is marked in bold. BIC = Bayesian Information Criterion; LL = log likelihood; CAIC = Consistent Akaike Information Criterion; \(L^2\) = likelihood ratio chi-square statistics; Class. Err. = classification error. Optimal model is highlighted in bold font.

The analytical approach of focusing on the repertoires of political actors rather than their separate political acts leads to the identification of the five distinct participant types shown in Table 3. The five classes identified in the optimal LCA model represent five types of political participants. Table 3 presents the conditional probabilities of these five latent classes in tabular form, as well as the standard errors for each point estimate, thereby clarifying the robustness of the substantive distinction between the specific point estimates for the five repertoires. The labels chosen to describe each repertoire reflect the distinctive characteristics of each latent class, as evident in the following summary of key findings.
Table 3. Latent class conditional probabilities with standard errors

<table>
<thead>
<tr>
<th></th>
<th>Vote-special. (50%)</th>
<th>Voter-persuad. (24%)</th>
<th>Disengaged (17%)</th>
<th>Non-institution. (6%)</th>
<th>All-around activists (4%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C.P.</td>
<td>S.E.</td>
<td>C.P.</td>
<td>S.E.</td>
<td>C.P.</td>
</tr>
<tr>
<td>Vote gen.</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>0.23</td>
</tr>
<tr>
<td>Vote Senate</td>
<td>0.97</td>
<td>0.01</td>
<td>0.97</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Vote House</td>
<td>0.95</td>
<td>0.01</td>
<td>0.93</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Pol. cons.</td>
<td>0.48</td>
<td>0.02</td>
<td>0.85</td>
<td>0.02</td>
<td>0.35</td>
</tr>
<tr>
<td>Persuade</td>
<td>0.40</td>
<td>0.02</td>
<td>0.83</td>
<td>0.02</td>
<td>0.17</td>
</tr>
<tr>
<td>Social media</td>
<td>0.23</td>
<td>0.02</td>
<td>0.65</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Petition</td>
<td>0.11</td>
<td>0.01</td>
<td>0.65</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Donate</td>
<td>0.06</td>
<td>0.01</td>
<td>0.35</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Sign</td>
<td>0.06</td>
<td>0.01</td>
<td>0.22</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Contact</td>
<td>0.03</td>
<td>0.01</td>
<td>0.29</td>
<td>0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>Pol. events</td>
<td>0.02</td>
<td>0.01</td>
<td>0.13</td>
<td>0.02</td>
<td>0.00</td>
</tr>
<tr>
<td>Party work</td>
<td>0.00</td>
<td>0.00</td>
<td>0.04</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>Protest</td>
<td>0.00</td>
<td>0.00</td>
<td>0.09</td>
<td>0.01</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Notes: LCA of ANES 2016 (n=2,409). The conditional probability point estimates are displayed graphically in Figure 1, and the standard errors in the table correspond to these conditional probability point estimates.

To interpret the results in relation to the theoretical focus of this analysis on protest—the least prevalent political act—recall that the two classic indicators related to protest reviewed in Table 1 are relatively rare in the population as a whole. Only 3.3% reported joining a protest march (labeled “protest”), and only 7.7% reported attending political meetings, rallies, or speeches (labeled “pol. events”).

As shown in Table 3, the likelihood of participating in these protest-related activities is not equally distributed across the five participant types. Two groups have almost zero probability of engaging in protest of any kind: the “disengaged” group, which constitutes 17% of the sample, and the “vote-specialists” group which accounts for 50% of

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3 While signing petitions is sometimes treated as protest (Durso et al. 2018), activities that are more typically described as protest are the less common political acts that involve public physical presence (Fisher et al. 2019).
the sample. Although these two groups differ meaningfully in their likelihood of participating in other political acts, they are similarly uninvolved in protests.

In contrast, the small group of “all-around activists,” which constitutes only 4% of the general population, has a very high probability of engaging in protest. While only 3.3% of the general population reported engaging in protests, this group has a 34% probability of protesting. Further, relative to the general public’s 7.7% mean prevalence of attending political events such as rallies, fully 86% of this group reported attending such events. In sum, members of this all-around activist group exhibit a high level of protest behavior and have high scores on all other participation indicators relative to the general population.

Two other latent classes have a meaningful probability of engaging in protest but have much lower scores than the all-around activists. The voter-persuaders group has a 9% probability of protesting (compared to the 3.3% probability in the overall population); and a 13% probability of attending political events such as rallies (compared to the 7.7% population mean). Finally, the non-institutionalized specialists score near the population mean for both protests and attending political events. The non-institutionalist group also scores high on classic non-institutionalized political acts of political consumerism and political social media use, as well as communication-oriented acts of petition and persuasion. Notably, although this group’s probability of voting is relatively low (41%), members of this group are almost twice as likely to vote as the disengaged group, and are on par with the general population’s likelihood of working for a political party. Thus, while this group places particular emphasis on non-institutionalized political acts, it is clearly not narrowly focused on protest to the exclusion of all other political engagement. The analytical approach of LCA’s identification of political actors’ distinctive participation
repertoires clarifies that in this ANES 2016 dataset, there is no “protest specialist” group that engages in only protest but is otherwise politically inactive.

To visually summarize the distinctive emphases of each latent class, Figure 1 plots the conditional probability point estimates for each participant repertoire to facilitate substantive clarity on the distinct emphases of each participant type. The x-axis plots the participation indicators from the most to least prevalent so the conditional probabilities for each latent class can be compared to the mean participation levels for each political act (noted in the x-axis labels).

Figure 1. Five types of political participants in the ANES 2016

In sum, this review of the latent class analysis findings with a theoretical focus on protest clarifies that the act of protesting has a relatively high probability of inclusion in
three distinct participant repertoires (all-around activists, voter-persuaders and non-institutionalized). Further, the individuals who are members of two of these participant types are certain to vote (all-around activists and voter-persuaders), while the non-institutionalized group has a lower probability of voting. The LCA findings clearly indicate that those who protest have broad and diverse repertoires of political participation that include engaging in other political acts, and that there is no set of “protest specialists” in these data.

Participant types and civic duty

The next stage of the analysis examines the relationship between the identified participant types and civic duty. Table 4 presents the results of a multinomial logistic regression that analyzes the determinants of membership in the five participant types. In addition to the key independent variable of civic duty, the regression model includes the standard control variables of party identification, internal efficacy (mean scale of three variables, 1=low, 5=high), political interest (1=not at all; 4=very), age (continuous year), gender (0=male; 1=female), education (16-category), income (28-category), race (African American, Hispanic, Other non-white). The multinomial logistic regression results in Table 4 defined “disengaged” as the reference group, and Figure 2 plots the average marginal effects of civic duty on membership in the five participant types based on the results of the fully

---

4 See the Supplementary Materials for additional variable information on question wording, recoding and descriptive statistics.
specified model. The results for the control variables are consistent with the literature (Smets and van Ham 2013).

One of the main findings revealed by the regression results is that all three participation repertoires that have high scores on voting (all-around activists, vote-specialists, and voter-persuaders) are also characterized by relatively high levels of civic duty relative to the disengaged reference group. This finding affirms Blais and Achen’s (2019) theory and findings regarding civic duty as a strong predictor of voting. Yet Figure 2 clarifies that the non-institutionalized group, which is characterized by relatively low levels of voting (41% conditional probability), has relatively high mean levels of duty that are on-par with two of the three high-voting groups. Specifically, the non-institutionalized group has levels of duty comparable to those of the vote-specialists and the all-around participants, and lower levels than only those of the voter-persuader group. Thus, the regression results also confirm Bolzendahl and Coffé’s (2013) finding that civic duty is predictive of voting as well as additional non-voting political behaviors. Taken together, these findings show that the probability of voting is not the only important characteristic of participation repertoires in relation to individuals’ levels of civic duty.

---

5 The reference group chosen for the regression analysis findings presented in the text is the “disengaged” group due to ease of interpretation of the other participant types in relation to this group. Analyses using alternate reference groups yielded the same substantive findings. The average marginal effects plotted in Figure 2 represent findings for all groups, including the disengaged reference group.
Table 4. Civic duty and participation repertoires

<table>
<thead>
<tr>
<th></th>
<th>Non-institutionalized</th>
<th>Vote-specialists</th>
<th>Voter-persuaders</th>
<th>All-around activists</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Civic duty</strong></td>
<td>0.057</td>
<td>0.181***</td>
<td>0.247***</td>
<td>0.194***</td>
</tr>
<tr>
<td></td>
<td>(0.058)</td>
<td>(0.035)</td>
<td>(0.038)</td>
<td>(0.072)</td>
</tr>
<tr>
<td><strong>Party ID</strong></td>
<td>0.290</td>
<td>0.561***</td>
<td>0.333*</td>
<td>0.455*</td>
</tr>
<tr>
<td></td>
<td>(0.265)</td>
<td>(0.125)</td>
<td>(0.148)</td>
<td>(0.182)</td>
</tr>
<tr>
<td><strong>Internal efficacy</strong></td>
<td>0.055</td>
<td>0.248</td>
<td>0.911***</td>
<td>0.771***</td>
</tr>
<tr>
<td></td>
<td>(0.213)</td>
<td>(0.148)</td>
<td>(0.175)</td>
<td>(0.247)</td>
</tr>
<tr>
<td><strong>Political interest</strong></td>
<td>0.386*</td>
<td>0.504***</td>
<td>1.008***</td>
<td>1.979***</td>
</tr>
<tr>
<td></td>
<td>(0.183)</td>
<td>(0.126)</td>
<td>(0.154)</td>
<td>(0.350)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-0.017</td>
<td>0.028***</td>
<td>0.013*</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.005)</td>
<td>(0.006)</td>
<td>(0.010)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>-0.010</td>
<td>0.079</td>
<td>0.330</td>
<td>0.634*</td>
</tr>
<tr>
<td></td>
<td>(0.281)</td>
<td>(0.179)</td>
<td>(0.198)</td>
<td>(0.320)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>0.064</td>
<td>0.216***</td>
<td>0.334***</td>
<td>0.296***</td>
</tr>
<tr>
<td></td>
<td>(0.067)</td>
<td>(0.042)</td>
<td>(0.051)</td>
<td>(0.068)</td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>-0.007</td>
<td>0.052***</td>
<td>0.036*</td>
<td>0.033</td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.013)</td>
<td>(0.015)</td>
<td>(0.023)</td>
</tr>
<tr>
<td><strong>African American</strong></td>
<td>0.259</td>
<td>-0.128</td>
<td>-0.162</td>
<td>0.389</td>
</tr>
<tr>
<td></td>
<td>(0.435)</td>
<td>(0.315)</td>
<td>(0.417)</td>
<td>(0.632)</td>
</tr>
<tr>
<td><strong>Hispanic</strong></td>
<td>0.397</td>
<td>-0.247</td>
<td>0.067</td>
<td>-0.201</td>
</tr>
<tr>
<td></td>
<td>(0.363)</td>
<td>(0.282)</td>
<td>(0.332)</td>
<td>(0.569)</td>
</tr>
<tr>
<td><strong>Other race</strong></td>
<td>-0.479</td>
<td>-0.304</td>
<td>-0.502</td>
<td>-0.824</td>
</tr>
<tr>
<td></td>
<td>(0.542)</td>
<td>(0.312)</td>
<td>(0.341)</td>
<td>(0.575)</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-2.906***</td>
<td>-6.793***</td>
<td>-11.802***</td>
<td>-15.692***</td>
</tr>
<tr>
<td></td>
<td>(1.027)</td>
<td>(0.609)</td>
<td>(0.775)</td>
<td>(1.658)</td>
</tr>
</tbody>
</table>

Notes: ANES 2016. Entries are logistic regression coefficients, followed by standard errors in parentheses. Reference group is the disengaged. The civic duty measure ranges from (1) strong choice to (7) strong duty; a larger coefficient indicates a higher level of duty. * $p < .05$, ** $p < .01$, *** $p < .001$. 
An additional substantive finding that is worthy of further research is the distinctively low level of duty among the disengaged group. This group, which constitutes 17% of the population is uninvolved in most political acts, including protest; for every indicator, the group’s conditional probability of engaging in the behavior is lower than the population mean. In addition to having a non-zero probability of voting in the general election (23%) this group is somewhat likely to engage in activities such as signing a petition, posting about a political message on social media, persuading, and especially political consumerism. Yet, relative to the other participation types identified in the analysis, the disengaged group is clearly characterized by lower levels of civic duty.
Focusing specifically on the act of protest in relation to participation repertoires, it is important to note that the analysis identifies two participant types that have almost no probability of engaging in protest, but differ in important ways in terms of their broader repertoire of participation: the “vote-specialist” type, which is characterized by high voting levels and levels of civic duty that are comparable to other high-voting participant types; and the “disengaged” participant type, which is characterized by a low probability of voting and low levels of civic duty.

Taken together, these findings show that in contrast to research designs that focus on analyzing the determinants of separate indicators of political participation, LCA enables the empirical identification of individuals’ broader participation repertoires and their correlates. For example, Table 4 shows that in the current analysis the standard predictors of participation (e.g., partisan identification, political efficacy, political interest) predict all three of the more active participant types, while female gender predicts membership in the all-around group, and older age predicts membership in the vote-specialists group. Future research can leverage this approach to test expected socio-demographic correlates of participant types in different geographic contexts and time periods.

Discussion
An important conclusion from these findings for the study of protest is that research designs that focus specifically on a dichotomous distinction between protestors versus non-protestors are studying two populations that are likely to differ in important ways in their broader participation repertoires and socio-demographic correlates. This study therefore clarifies the theoretical and methodological importance of studying political behavior such
as protest in the context of individuals’ broader repertoires of political participation. This illustrative analysis shows how LCA can be used as a powerful analytical tool to identify participant repertoires and their socio-demographic correlates.

The findings in the illustrative analysis in the current study shed light on how to reconcile two apparently contradictory findings in the literature about the expected relation between different types of political acts and the norm of civic duty. The LCA results confirm Blais and Achen’s (2019) finding that civic duty is positively related to voting, while showing that their expectation that duty is unrelated to non-voting political acts is dependent on the distinctive emphases of broader participation repertoires. Similarly, the findings also confirm Bolzendahl and Coffè’s (2013) expectation that duty is positively associated with voting, while showing that their expectation that duty’s positive association with political acts beyond voting is dependent on the distinctive emphases of individuals’ broader participation repertoires. The findings demonstrate how a theoretical and methodological perspective that focuses on broader repertoires of participation can offer a deeper understanding of how individual participants combine specific acts of participation—such as protest—with the full range of participatory possibilities.

The illustrative analysis also contributes a new perspective to the speculation in the literature about the existence of a non-voting “protest specialist” group. In research and public discussion of recent protest phenomena on the far right (e.g., white nationalist) and far left (e.g., antifa), the question has arisen as to whether a meaningful subgroup of the general population engages in protest while abstaining from all other political activity. The non-institutionalized group is the closest approximation to this expectation, but the findings
show that this group also has meaningful probabilities of engaging in multiple traditional, electoral-oriented activities.

A related important finding is the identification of the need for further research on the distinctive “disengaged” repertoire that is characterized by low scores on all opportunities for political action. In siloed studies of separate political indicators, there is no analytical window for the identification of this segment of the population. Experts on the socio-demographic predictors of voting have revealed how voters differ from non-voters (Leighley and Nagler 2014; Nevitte et al. 2009) and experts of protest have established how protestors differ from non-protesters (Klandermans 2014; van Stekelenburg and Klandermans 2014). However, few studies have focused on those who engage in almost no political activities from the perspective of individuals’ broader repertoire of political participation. The findings of the current study showed that in 2016, this disengaged group constituted a sizeable 17% of the U.S. population, and its members had distinctively low scores on duty relative to all other participant types. In an era marked by rising levels of populism and concerns about democratic legitimacy, this methodological approach for identifying participant types may provide a deeper understanding of the causes and consequences of political activism, as well as political disengagement.

An additional contribution of this methodological approach for future research on protest is to further investigate how protest relates to representational outcomes and democratic responsiveness. The majority of large-n cross-national survey research on the connection between political behavior and political outcomes has tended to focus on the act of voting. Research on this topic has shown that voters’ views tend to be better
represented than non-voters, but the causal mechanisms connecting voting and political outcomes remain a topic of debate. A potential mechanism that has received considerable attention in the literature is that people who vote also tend to engage in additional political acts that communicate their views to decision-makers (Bartels 2018; Giugni and Grasso 2019; Griffin and Newman 2005; Han 2016; Han, McKenna and Oyakawa 2021). Yet large-n survey-based methodological approaches that identify and analyze individuals’ broader participation repertoires are not yet widely used in empirical research on these topics. In this substantive field and others, the use of LCA to analyze participation repertoires has the potential to shift research on political behavior from siloed studies on seemingly unrelated political behaviors (i.e., voting; protesting) to a clearer identification of the causes and consequences of individuals’ broader repertoires of political participation.

A final important area of future research using LCA to identify participant repertoires is to expand the single-context focus of the current study on U.S. data to test cross-national and longitudinal theoretical expectations. For example, in contexts with higher average levels of protest such as Spain or Italy, results may identify distinctive protest repertoires that merit further study. Due to recent development in latent class methodology related to measurement equivalence and multi-level classification (e.g., Alvarez et al. forthcoming; Bakk et al. 2020; Oberski et al. 2015), this sort of robust cross-national comparison will allow researchers of protest and political behavior to broaden and sharpen our theoretical and analytical vision in future research on these topics.
References


Albacete, Gema Garcia. 2014. Young People's Political Participation in Western Europe: Continuity or Generational Change?. Springer.


Supplementary Material

Protest as one political act in individuals’ participation repertoires

Data

- Website from which data and codebook files were originally downloaded, on August 9, 2017: http://www.electionstudies.org/studypages/anes_timeseries_2016/anes_timeseries_2016.htm
- Survey Documentation Analysis (SDA) for this dataset to assist in data familiarity: http://sda.berkeley.edu/sdaweb/analysis/?dataset=nes2016

Software

Software used in the analysis include Latent Gold (LG) 5.1 and Stata 15.1 for Windows.

For the findings reported in the manuscript, three analytical steps were taken:
1. Stata was used for data cleaning and variable recodes in preparation for conducting latent class analysis (LCA).
2. Latent Gold was used for conducting the LCA, and LCA estimates were outputted to a datafile using classification predication.
3. Stata was used for conducting multinomial logistic regression on the LCA estimates that were produced by Latent Gold.

Supplementary analytical information

- Weights: Following instructions in the ANES user’s guide and codebook (American National Election Studies, University of Michigan, and Stanford University 2017b), the weighting procedure in the multivariate analyses in Stata took into account the ANES complex sample design, as follows: svyset [pweight=V160102], strata(V160201) psu(V160202). Weights were also applied in Latent Gold.

Variables used in analyses

For full question wording in ANES questionnaire document, see ANES (2017a, 2017b).

Political participation variables

- Political activities prefatory question for ANES variables V162010 through V162017: “We would like to find out about some of the things people do to help a party or a candidate win an election. During the campaign, did you...”
- Political activities ANES variables beginning with variable V162018a were phrased as follows; “During the past 12 months, have you [political activity name] or have you not done this in the past 12 months?”
- Political activities recode: All items were recoded to dichotomous response options, 0=no; 1=yes.
• Donate: the three variables in the following table are based on ANES questions that asked about different types of donating, namely to a campaign (V162014), to a political party (V162016), and to another group that is for/against a campaign (V162017). Principal component analysis shows that the three variables load on the same factor. The recoded “donate” variable is coded as 1 if the respondent engaged in any of these three donating behaviors, and 0 if respondent indicated “0” for all three questions.

**Political participation variables**

<table>
<thead>
<tr>
<th>Var. in article</th>
<th>ANES var.</th>
<th>Question wording in ANES 2017b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vote gen.</td>
<td>V162031x</td>
<td>Summary general election voting variable</td>
</tr>
<tr>
<td>Vote Senate</td>
<td>V162046</td>
<td>Did R vote for U.S. Senate</td>
</tr>
<tr>
<td>Vote House</td>
<td>V162039</td>
<td>Did R vote for U.S. House of Representatives</td>
</tr>
<tr>
<td>Pol. cons.</td>
<td>V162141</td>
<td>How often bought or boycotted produce or service for soc/pol reason</td>
</tr>
<tr>
<td>Persuade</td>
<td>V162010</td>
<td>R talk to anyone about voting for or against cand or pty</td>
</tr>
<tr>
<td>Social media</td>
<td>V162018e</td>
<td>Past 12 mos: Sent a message on FB/Twitter about polit iss</td>
</tr>
<tr>
<td>Petition</td>
<td>V162018b</td>
<td>Past 12 mos: Sign internet or paper petition</td>
</tr>
<tr>
<td>Donate</td>
<td>V162014</td>
<td>R contribute money to specific candidate campaign</td>
</tr>
<tr>
<td></td>
<td>V162016</td>
<td>R contribute money to political party</td>
</tr>
<tr>
<td></td>
<td>V162017</td>
<td>R contribute to any other group for/against a cand</td>
</tr>
<tr>
<td>Sign</td>
<td>V162012</td>
<td>R wear campaign button or post sign or bumper sticker</td>
</tr>
<tr>
<td>Contact</td>
<td>V162019</td>
<td>Past 12 mos: Contact Congressman or Senator</td>
</tr>
<tr>
<td>Pol. events</td>
<td>V162011</td>
<td>R go to any political meetings, rallies, speeches</td>
</tr>
<tr>
<td>Party work</td>
<td>V162013</td>
<td>R do any (other) work for party or candidate</td>
</tr>
<tr>
<td>Protest</td>
<td>V162018a</td>
<td>Past 12 mos: Joined a protest march</td>
</tr>
</tbody>
</table>

**Socio-demographic variables**

<table>
<thead>
<tr>
<th>Var. in article</th>
<th>ANES var.</th>
<th>Recoded response categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic duty</td>
<td>V161151x</td>
<td>1=duty strong; 7=choice strong</td>
</tr>
<tr>
<td>Party ID</td>
<td>V161155</td>
<td>1=Ind.; 2=Rep.; 3=Dem.</td>
</tr>
<tr>
<td>Internal efficacy</td>
<td>V162217</td>
<td>Mean scale of 3 internal efficacy variables; 1=low internal efficacy; 5 = high internal efficacy</td>
</tr>
<tr>
<td></td>
<td>V162218</td>
<td>efficacy</td>
</tr>
<tr>
<td></td>
<td>V162258</td>
<td></td>
</tr>
<tr>
<td>Political interest</td>
<td>V162256</td>
<td>1=not at all; 4=very</td>
</tr>
<tr>
<td>Age</td>
<td>V161267</td>
<td>Age in years, continuous</td>
</tr>
<tr>
<td>Gender</td>
<td>V161342</td>
<td>0=male; 1=female</td>
</tr>
<tr>
<td>Education</td>
<td>V161270</td>
<td>1=&lt;1st grade; 16=post-doctorate</td>
</tr>
<tr>
<td>Income</td>
<td>V161361x</td>
<td>Harmonizes pre- and post-election vars:</td>
</tr>
<tr>
<td></td>
<td>V162309x</td>
<td>1=Under $5,000; 28=$250,000+</td>
</tr>
<tr>
<td>African American</td>
<td>V161310x</td>
<td>1=Afr. Am.; 0=else</td>
</tr>
<tr>
<td>Hispanic</td>
<td>V161310x</td>
<td>1=Hispanic; 0=else</td>
</tr>
<tr>
<td>Other non-white</td>
<td>V161310x</td>
<td>1= Other non-white; 0=else</td>
</tr>
</tbody>
</table>
Descriptive statistics of variables in the regression analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic duty</td>
<td>1.00</td>
<td>7.00</td>
<td>4.44</td>
<td>2.42</td>
</tr>
<tr>
<td>Party ID</td>
<td>1.00</td>
<td>3.00</td>
<td>1.97</td>
<td>0.80</td>
</tr>
<tr>
<td>Internal efficacy</td>
<td>1.00</td>
<td>5.00</td>
<td>3.31</td>
<td>0.77</td>
</tr>
<tr>
<td>Political interest</td>
<td>1.00</td>
<td>4.00</td>
<td>2.86</td>
<td>0.85</td>
</tr>
<tr>
<td>Age</td>
<td>18.00</td>
<td>90.00</td>
<td>49.58</td>
<td>17.58</td>
</tr>
<tr>
<td>Gender</td>
<td>0.00</td>
<td>1.00</td>
<td>0.53</td>
<td>0.50</td>
</tr>
<tr>
<td>Education level</td>
<td>1.00</td>
<td>16.00</td>
<td>11.17</td>
<td>2.32</td>
</tr>
<tr>
<td>Income category</td>
<td>1.00</td>
<td>28.00</td>
<td>15.34</td>
<td>8.12</td>
</tr>
<tr>
<td>African American</td>
<td>0.00</td>
<td>1.00</td>
<td>0.09</td>
<td>0.29</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.00</td>
<td>1.00</td>
<td>0.11</td>
<td>0.31</td>
</tr>
<tr>
<td>Other non-white</td>
<td>0.00</td>
<td>1.00</td>
<td>0.08</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Missing data
The analysis did not include observations in the ANES data that were missing data on the participation variables. Analyses that imputed missing data produced the same substantive findings.

Example syntax in Latent Gold 5.1 for first model

//LG5.1//
version = 5.1
infile 'C:'

model
title 'weighted 1-7';
options
  maxthreads=4;
  algorithm
    tolerance=1e-008 emtolerance=0.01 emiterations=250 nriterations=50;
  startvalues
    seed=0 sets=16 tolerance=1e-005 iterations=50;
bayes
  categorical=1 variances=1 latent=1 poisson=1;
  montecarlo
    seed=0 sets=0 replicates=500 tolerance=1e-008;
    quadrature nodes=10;
  missing excludeall;
output
  parameters=effect betaopts=wl standarderrors profile probmeans=posterior
  bivariateresiduals estimatedvalues=model;
variables
caseweight V160102;
dependent votegen_all, votesenate, votehouse, polcon, persuade,
polmsg_FACETwit, petition, donate, sign, contact, pol_events, protest, wrkprty;
latent
  Cluster nominal 1;
equations
  Cluster <- 1;
votegen_all <- 1 + Cluster;
votesenate <- 1 + Cluster;
votehouse <- 1 + Cluster;
polcon <- 1 + Cluster;
persuade <- 1 + Cluster;
polmsg_FACETwit <- 1 + Cluster;
petition <- 1 + Cluster;
donate <- 1 + Cluster;
sign <- 1 + Cluster;
contact <- 1 + Cluster;
pol_events <- 1 + Cluster;
protest <- 1 + Cluster;
wrkprty <- 1 + Cluster;
end model