



Center for Social Development

GEORGE WARREN BROWN SCHOOL OF SOCIAL WORK

# Adolescent Political Behavior

## Towards Increased Validity and Reliability of Measures

Suzanne Pritzker  
Center for Social Development

2008

CSD Working Papers  
No. 08-32

Campus Box 1196 One Brookings Drive St. Louis, MO 63130-9906 • (314) 935.7433 • [www.gwbweb.wustl.edu/csd](http://www.gwbweb.wustl.edu/csd)



Washington University in St. Louis

# Adolescent Political Behavior: Towards Increased Validity and Reliability of Measures

*Early and middle adolescence have been identified as critical periods for developing civic identity (Erikson, 1968; Sherrod, 2006; Youniss & Yates, 1997); thus, understanding adolescent political behaviors may help us to better understand pathways to political engagement in adulthood (Galston, 2001). Perhaps because adolescents are limited by age from the right to vote, little attention has been paid to consistent operationalization and measurement of adolescent political activity. This research seeks to strengthen the development of methodologically sound measures of adolescent political behavior by reviewing and critiquing commonly-used measures in the field. Based on a review of items used in 22 national surveys and intervention studies, this paper identifies substantial need for increased consistency and precision in measuring adolescent political behavior. Recommendations for strengthening the measurement of adolescent political behavior are discussed.*

**Key words:** *political behavior, civic engagement, adolescent development, measurement*

Levels of civic engagement among youth have become a popular issue in recent years in both the public arena and academic scholarship. “Civic engagement” is a broad concept, encompassing a multitude of ways that citizens can connect with the larger society. Disagreements over the parameters of “civic engagement” are widespread in scholarly studies (Gibson, 2001; Sherrod, Flanagan, & Youniss, 2002; Westheimer & Kahne, 2004; Youniss, et al., 2002). One way to conceptualize civic engagement is in terms of “social” and “political” forms of behaviors (McBride, 2003). Social forms may be connected to a general public good outside the policy arena, while political forms are those tied to politics and policy. Regardless of the parameters used, however, scholars and public officials generally share a concern over the degree to which youth are—or are not—connecting with the larger society. This concern is particularly prevalent regarding youth’s engagement in the political sphere.

The means by which youth can engage politically are numerous and multidimensional (Beaumont, Colby, Ehrlich, & Torney-Purta, 2006; Brady, 1999). This has resulted in inconsistent operationalization and measurement of youth political engagement. Inconsistent measurement limits efforts to quantify how youth behave politically, to compare engagement over time or across populations, or to identify statistically significant predictors of youth engagement. Recent work has sought to improve the measurement of political behaviors in youth civic engagement scholarship (Andolina, Keeter, Zukin, & Jenkins, 2003; Jenkins, Andolina, Keeter, & Zukin, 2003; Keeter, Jenkins, Zukin, & Andolina, 2003; Keeter, Zukin, Andolina, & Jenkins, 2002; Zukin, Keeter, Andolina, Jenkins, & Delli Carpini, 2006). However, this work has focused on the measurement of behavior among a broad population, while little work has examined the measurement of political behaviors exclusively among adolescents younger than age 18 (but see Flanagan, Syvertsen, & Stout, 2007).

Particular attention should be paid to political behavior within this age group. Early and middle adolescence have been identified as a critical time for the development of civic identity (Erikson,

1968; Sherrod, 2006; Youniss & Yates, 1997), which is believed to play a part in adult civic involvement (Battistoni, 1997; Stolle & Hooghe, 2004; Youniss, McLellan, & Yates, 1997). Adolescents typically are not thought of as political actors, because those under 18 are not eligible to vote. Thus, most measurement of adolescent civic activities appears to focus on social behaviors like volunteerism, and research emphasizes social activities as precursors to adult political participation (e.g., Youniss, et al, 1997; Sherrod, et al., 2002). However, habits of political participation in adolescence also may be relevant for shaping adult political behavior (Galston, 2001; Sapiro, 2004). Attention to how adolescent political activities are measured is important for increasing our understanding of civic development. Because adolescents have access to fewer means of engagement than older youth and adults and are treated differently in the political sphere due to their lack of access to the vote, distinct measures may be necessary. Instruments are needed that validly measure the universe of behaviors in which adolescents may participate.

This article seeks to inform the development of methodologically sound measures of pre-voting age adolescent political behavior. It builds on the previous work of Scott Keeter and colleagues (Andolina, et al., 2003; Jenkins, et al., 2003; Keeter, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006) to improve the measurement of youth political participation. While low levels of political participation are found consistently across studies of adolescents, conclusions about the state of civic engagement among today's adolescents may be biased by measurement error. Certainly the measurement of political behavior presents some difficulties that measurement of other adolescent behaviors may not, especially due to the episodic nature of certain political activities and the unique nature of political election cycles (Keeter, et al., 2003). However, standardized measures of adolescent political behavior are not used in survey or intervention research, and measures that are used lack consistency across studies. The reliance in civic engagement scholarship on statistics from diverse sources using differently-worded measures (Celestine, n.d.) raises questions about the ability of civic engagement researchers to test theoretical claims accurately.

Measures of current or intended political behavior often are included in surveys of civic engagement that include adolescents in their samples and in studies of civic interventions with adolescent populations. Based on a review of 22 such sources, a set of items that have been used to measure the political behavior of adolescents in recent years is reviewed and critiqued. Items from each source are identified and categorized along conceptual themes, with the specific wording of behavioral items within each concept evaluated and critiqued for consistency, validity, and reliability across studies. Based on this analysis, recommendations are made to strengthen the measurement of adolescent political behavior.

### **Political Behavior Among Adolescents**

Little is known specifically about what political activity looks like among youth under 18, those who are not yet old enough to vote. While much research investigates political activity among “youth,” there is little consistency regarding the age group in question. Voting statistics may refer to 18-24 year olds as youth, while some academic research groups together youth as young as 15 and as old as the mid or late 20s (Andolina, Keeter, Zukin, & Jenkins, 2002a, 2002b; CIRCLE & CDC, 2004; CIRCLE, CDC, & PTG, 2002; NASS, 1998). To combine both youth of voting age and younger adolescents into one “youth” population in measuring political behavior may have problematic theoretical and empirical implications. In addition to issues of access, substantial developmental,

social, and even contextual differences exist between the two age groups (Arnett, 2000, 2004, as cited in Smetana, Campione-Barr, & Metzger, 2006).

Data that include adolescent populations indicate that adolescents may exhibit high levels of alienation or apathy from governmental and political processes, and are less likely than adults to be involved in various forms of political activity. For example, fewer than 20% of youth ages 15-25 report contacting public officials or newspapers, participating in protests, marches or demonstrations, or canvassing for a political cause or candidate (Olander, 2003). Less than one-third of U.S. 14 year-olds anticipate that they will join a political party or write letters to the editor dealing with political topics as adults (Torney-Purta, 2001; Torney-Purta, et al., 2001). Furthermore, survey data suggest that adolescents do not view participating in political discussions as important and pay less attention to news media about political and governmental issues than do older people (Keeter, Andolina, Jenkins, & Zukin, 2002; Torney-Purta, 2001; Torney-Purta, et al., 2001).

As the above samples of political indicators demonstrate, the political behavior construct is complex and multi-dimensional (Beaumont, et al., 2006; Brady, 1999). Moreover, the parameters of what constitutes political behavior can be quite contentious (Brady, 1999). Generally, citizens are understood to behave politically when they participate in activities through which they can make their wishes known to politicians and government officials (Verba, Schlozman, & Brady, 1995). Verba, et al. (1995), for example, define behaviors that are “political” as those that directly or indirectly affect government action.

In the case of youth, the parameters of political participation may be even more unclear. Youth civic engagement scholarship brings together a diverse, interdisciplinary set of scholars, who bring distinct theoretical perspectives to their study of youth civic behaviors. There is substantial debate in the field about whether certain behaviors that are not directly in the political sphere can be considered “political.” Some scholars from political science and related disciplines tend to limit the definition of political behaviors to those that take place specifically in the political arena. Other scholars (e.g., Jenkins, et al., 2003; Sherrod, et al., 2002) are more likely to incorporate a broader set of activities into their definition, including some that are more social in nature, because adolescents do not yet have access to the full range of political activity; moreover, social behaviors often are seen as a precursor to adult political behavior.

Perhaps as a result of such conceptual disagreement, the set of political behaviors measured differs across studies. Few efforts have been made to create standardized measures of youth political behavior. Scott Keeter and colleagues (Andolina, et al., 2003; Jenkins, et al., 2003; Keeter, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006) are a prominent exception, engaging in a multi-year study to identify core indicators of engagement. This study identified four categories of youth civic engagement and corresponding measures: civic activity, involving organized volunteerism; electoral activity, related to electoral processes; political voice, wherein youth express their political opinions and preferences; and cognitive engagement, referring to youth attention to political and governmental issues (Zukin, et al., 2006). In this review of measures used in the field, behavior that is “political” is limited to that which takes place directly in the political arena, namely electoral activity and expressions of political voice, as well as cognitive behaviors directly tied to issues in the political domain, or “political attentiveness,” as it is referred to in this paper. As is common in the study of adolescent political behavior, this review includes measures of both current and intended political behavior.

## Methods

This study seeks to identify the diverse array of indicators commonly used to measure adolescent political behavior. Items measuring political behavior among pre-voting age adolescents were culled from major surveys that measure youth civic engagement and from studies of civic interventions targeting pre-voting age adolescents. Additional adolescent political activities may exist and remain unmeasured (e.g., Cohen, 2006; Ginwright, 2006; O'Toole, Lister, Marsh, Jones, & McDonagh, 2003); future research should examine whether additional indicators should be integrated into the universe of adolescent political activity.

Data for this analysis were drawn from two types of sources (N=22). First, 11 national surveys that measure indicators of youth engagement were identified. These surveys, all but one administered in the last 10 years, attempt to gauge levels of civic engagement among youth in the United States and include adolescents under 18 in their sampling frames. Three are well-known national broad-based surveys of high-school age youth: Monitoring the Future (Johnston, Bachman, O'Malley, & Schulenberg, 2004), the National Education Longitudinal Study (U.S. Dept. of Education National Center for Education Statistics, 2004), and the National Household Education Survey (U.S. Dept. of Education National Center for Education Statistics, 1996). The Black Youth Project Youth Culture Survey (Center for the Study of Race Politics and Culture, 2006a) is a national survey of 15-25 year olds that examines attitudes and behaviors regarding youth culture, with particular sampling attention to minority youth (Center for the Study of Race Politics and Culture, 2006b).

The remaining seven surveys were administered primarily for the purpose of measuring civic knowledge, attitudes, and/or behaviors. Six were conducted in association with the Center for Information and Research on Civic Learning and Engagement (CIRCLE): the 2002 National Youth Survey; the CIRCLE National Civic Engagement Survey I; the CIRCLE National Youth Survey of Civic Engagement 2002; the 2004 National Youth Survey; the New Millennium Survey; and the 2006 Civic and Political Health Survey (Andolina, et al., 2002a, 2002b; CIRCLE & CDC, 2004; CIRCLE, et al., 2002; Lopez, et al., 2006; NASS, 1998). In addition, behavioral items administered in the International Association for the Evaluation of Educational Achievement's 1999 Civic Education study of 14-year olds in 28 democratic countries were reviewed (Torney-Purta, et al., 2001). All items that measured political behaviors from each of these 11 surveys were culled.

In addition, all items measuring political behavior were collected from 11 civic intervention studies that involved youth under 18. These 11 studies were selected because they integrate relatively rigorous designs and methods, are widely disseminated, and/or are conducted by influential scholars in the field. They include six studies of supplemental civic education curricula (Hartry & Porter, 2004; Kahne, Chi, & Middaugh, 2006; McDevitt & Chaffee, 2000; McDevitt & Kioussis, 2006; McDevitt, Kioussis, Wu, Losch, & Ripley, 2003; Meirick & Wackman, 2004); three studies of community service interventions (Metz, McLellan, & Youniss, 2003; Metz & Youniss, 2005; Niemi, Hepburn, & Chapman, 2000); one service-learning study (Billig, Root, & Jesse, 2005); and one study of a youth organizing program (Watts & Guessous, 2006).

Each item measuring a form of political behavior was identified in these 22 different sources, and then categorized into one of three conceptual categories based on the item content: electoral activity; political voice; and political attentiveness. Within each category, items were further grouped according to the specific behavioral indicator being measured. In order to assess threats to the

reliability or validity of the measures, the exact wording of each item was then compared and contrasted with other items measuring the same indicator.

## Results

Examination of the measures of adolescents across the 22 studies indicates that some consistency exists in the structure of items. For example, each measure is either nominal or ordinal in nature. Past or current activity seems to be measured predominantly with binary yes/no response options, while ordinal scales are more commonly used when measuring the likelihood of future participation. However, within certain indicators, there are substantial differences in the measures used across studies.

*Electoral activity.* Items measuring electoral activity among pre-voting age adolescents can be understood as measuring eight primary indicators. Zukin, et al. (2006) identify five of these primary indicators of electoral activity: voting (or intent to vote in the case of adolescents), contributing money to political campaigns or organizations, displaying political paraphernalia, persuading others how to vote, and helping political candidates or organizations. In this review of empirical literature, three additional indicators of electoral activity were found: membership in political organizations, interest in future political candidacy, and student government participation. Student government participation differs from the other indicators included here, because it does not take place in the public political domain; however it represents a means by which adolescents can imitate electoral processes. In some cases, student government participation is treated as an independent variable that may lead to engagement; in other cases it is used as an indicator of engagement. Future factor analyses will be necessary to determine whether student government should be included as a measure of electoral behavior. The set of items used to measure each of these indicators of electoral activity is presented in Appendix A.

Examination of the specific wording of electoral activity items raises concerns as to the ability to compare findings across different studies. In particular, many questions specify a reference period; however, this time frame varies across conceptually similar items. For example, in order to measure campaign volunteering activity, studies differentially ask whether respondents have volunteered on a political campaign ever, in the last 12 months, in the past couple of years, or in the last few years. Items measuring intent to participate in electoral activity also specify different reference periods. Across items measuring intent to vote, respondents are asked whether they plan to vote after high school, as an adult, two years from now, or in the future.

Inconsistency in item content is also common. Items measuring campaign participation tend to ask whether respondents “volunteered” in a political campaign, but two items ask instead whether respondents “worked” for a political campaign. Intent questions similarly vary as to whether they ask respondents if they plan to volunteer or to work. Questions predominantly ask about volunteering for a campaign; but several items group working or volunteering together. Similarly, items measuring membership in political organizations use different language, asking in several instances whether respondents joined organizations dealing with government or politics, and in other cases, whether respondents have been involved with an “organization affiliated with a political party or union.”

Furthermore, while there is some consistency in the response options offered for similar questions across studies, this is not uniform. Items measuring past or current activity tend to present the same binary response options, but the response options for intent to act are more diverse, limiting comparability. For example, among the six items measuring intent to help political campaigns and organizations, five distinct sets of response options are offered.

Electoral activity appears to be measured primarily using single-item measures. In a couple of cases, a study uses more than one item to measure the same indicator, but this is rare. Indices of electoral activity also are fairly uncommon. Of the 22 studies reviewed for this analysis, three indices measuring electoral activity were identified. Watts and Guessous (2006) used Pancer's (2000) Youth Inventory of Involvement political subscale, and Torney-Purta, et al. (2001) combined three electoral intentions into an expected political activity scale. Kahne, et al. (2006) used a five-item participatory citizen measure; however, the measure included attitudinal measures and activities not typically defined as political.

*Political voice.* Traditional electoral activity is generally understood as the most direct way to impact policy and the actions of politicians; however, increasing attention is being paid to the identification of other forms of behavior through which citizens can communicate preferences to politicians. These activities often have been referred to as “unconventional” (Brady, 1999; Keeter, Zukin, et al., 2002). Keeter, et al. (2002) instead refer to these forms of behavior as “political voice,” as activities through which individuals can express their political opinions. More specifically, they can be understood as indirect ways of affecting government action (Andolina, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006). These forms of activity may be particularly relevant for adolescents, because they represent activities that are not age-limited.

Keeter and colleagues (Andolina, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006) have identified indicators of political voice as behaviors such as: contacting public officials or the media, signing various types of petitions, protesting, canvassing on behalf of a political group or candidate, and certain forms of market-based activity. Two additional indicators of electoral voice were found in the empirical literature: expressing views at a public meeting and in an online political discussion. Appendix B lists the set of items found in the reviewed studies that are used to measure indicators of political voice.

Fewer distinct items measuring political voice are included in the 22 studies as compared to measures of electoral activity. With the exception of measures of protest and of boycotting, only a few items measure each distinct indicator of activity. Items are generally single-item measures; however, three studies incorporate multi-item measures. Metz & Youniss (2005) and Metz, et al. (2003) use a three-point measure of unconventional civic involvement; it should be noted that one of the three indicators measured is better conceived of as a measure of electoral activity than of political voice. A third study (Kahne, et al., 2006) uses a five-item measure of justice-oriented citizenship, with several items that measure attitudes rather than behavior.

Among the predominantly single-item measures, the reference periods for measuring indicators of political voice lack consistency, as in items measuring electoral activity. Items measuring past activity include reference periods ranging from a 12-month period to an undefined period of time in the past. Items measuring respondents' intent to engage in political voice activities similarly include

diverse reference periods, including the next couple of years, the next few years, the future, or, in some cases, the period of time into the future is left undefined.

The substantive wording of items measuring indicators of political voice yields substantial differences. For example, of the seven items measuring past protest activity, six use different descriptors of protest activity. Items ask about participation in “a peaceful demonstration or protest,” “a march or demonstration for a political cause,” “a lawful demonstration,” and “in rallies,” as well as whether respondents have “taken part in a protest, march, or demonstration” or “attended a protest meeting, demonstration, or sit-in.” Similarly, the eight items measuring boycotting activity use six different descriptors of the market activity. In fact, across all indicators of political voice with multiple item measures, the wording varies across the measures.

There also appears to be some inconsistency as to whether or not certain types of activities should be understood to be distinct from each other. While the use of distinct items suggests that some researchers identify a qualitative distinction between the signing of an email petition and a written petition, another researcher appears to treat them as reflective of a single indicator by asking about both in the same item. A similar phenomenon is evident in measures of contacting. While some researchers distinguish between contacting media and contacting public officials, others ask about contacting media and government officials together in the same item.

Like the measures of political activity, most measures of past political voice activity present binary response options. However, some items include an additional response option inquiring as to whether the activity, if performed, took place in the last 12 months. Response options for intent items are less uniform; but fewer items measure intended political voice indicators.

*Political attentiveness.* An additional set of activities that may be considered indicative of political behavior are measures of adolescent attention to government, political affairs, or current events. Such behavior is commonly measured in surveys of youth engagement, although it is less likely to be identified as a form of political behavior, when compared to electoral activity and political voice. Keeter and colleagues (Andolina, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006) refer to this form of behavior as “cognitive engagement,” and do not fully identify it as a form of political behavior. Likewise, Brady (1999) refers to this category of activity as a “border political activity.” Zukin, et al. (2006) note, however, that attention to politics and policy may be a particularly important measure for younger citizens who have not yet developed patterns of participation in other forms of political activity. As a result, these indicators of connection with the polity are reviewed here as measures of political behavior.

Zukin, et al. (2006) identify four behaviors as indicators of attentiveness, or cognitive engagement: following what is taking place in government and public affairs, discussing politics with friends and family, political knowledge, and attention to news media. Measures of knowledge were excluded from this analysis because they represent a political knowledge construct, distinct from behavior. Based on an examination of the items measuring attentiveness, the other indicators were further subdivided, reflecting possible conceptual distinctions between different types of media or between communication with friends and family. Eight indicators of political attentiveness were identified among these studies: attention to government and public affairs, attention to print media, attention to broadcast media, attention to internet news, political discussion with family, political discussion

with friends, political conversation, and voluntary exposure to political content. The set of items used to measure these indicators is displayed in Appendix C.

Measures of attentiveness are common across the 22 studies reviewed for this analysis. The large majority of items focus on current or past behavior, with little measurement of intent. Unlike the other categories of political behavior indicators, items measuring attentiveness tend to incorporate ordinal measures of frequency. Binary response options are rare within this construct. Many of the frequency measures are what Schwarz and Oyserman (2001) refer to as “vague quantifiers,” where respondents are asked questions such as whether they follow politics “very closely” or listen to news broadcasts “often.”

Response options vary across items measuring the same indicator. For example, the 11 measures of attention to print media include binary response options, open-ended report of the number of days a respondent paid attention to news media, as well as five different versions of frequency response options.

Like the other two categories of political behavior measures, reference periods differ across items. Likely because attentiveness behaviors may occur more regularly, where reference periods are provided, they tend to be shorter than in items measuring other forms of political behavior. Several items measuring attention to government and public affairs use a recent election campaign as a reference period; however, other items include no reference period. Items measuring political discussion with family members use reference periods ranging from “when you were growing up” to the “current school year” to “the last few years.”

Categorization of the attentiveness indicators raises some questions about whether qualitative differences exist between different forms of media. Studies consistently ask about attention to print media such as newspapers or magazines, ask somewhat less often about attention to broadcast media such as television and radio, and even less often about attention to internet news. It remains to be determined whether these activities represent distinct constructs. Similarly, while Zukin, et al. (2006) group discussion of politics with friends and family together, other researchers distinguish between discussion with friends and with family, including separate items gauging discussion with each of the two types of populations.

Item wording also varies substantially among different measures of the same indicator. Items measuring political discussion with friends differentially ask if respondents talk with their friends about “the election campaign,” “current events or things you have heard about in the news,” “politics, government, or current events,” “what is happening in your national politics,” or “international politics.” Items measuring attention to print media include questions about whether respondents have “read a magazine about government, politics or current events,” “get information about public affairs, politics, candidates and campaigns” from “newspapers and magazines,” “read articles about what is happening in this country,” or whether they just generally “read newspapers.”

## Discussion

Political behavior is a complex, multidimensional construct, incorporating a diverse set of means by which citizens can act in the political sphere (Beaumont, et al., 2006; Brady, 1999). Many different activities can be incorporated into the three categories of political behavior identified here. As a

result, the set of behaviors considered worthy of measurement varies among researchers. Standardized measures are rare; instead researchers appear to create new combinations of indicators and operational measures based on their own conceptual frameworks. How items are operationalized and measured influences the type of data that we can collect. Based on this analysis of political behavior items asked of adolescents in recent empirical research, possible weaknesses are identified in the operationalization and measurement of behavioral indicators. These weaknesses may impact the quality of the behavioral data collected in the field and the conclusions we can make about adolescent political behavior.

### **Content validity**

This analysis raises questions about the ability of measures of political activity among adolescents to accurately represent the content domain. The content validity of adolescent political behavior measures can be examined on two different levels. First, is political behavior as a distinct concept measured by an adequate and appropriate array of indicators? Second, do the measures of an indicator adequately represent the meaning associated with that indicator?

Measures should be selected from the “universe of meaning” for a specific concept (Gillespie, 2000). In response to such concerns, Keeter and colleagues (e.g., Jenkins, et al., 2003) convened focus groups nationally and conducted experimental telephone surveys to identify a set of indicators measuring civic engagement. This process resulted in their identification and inclusion of measures of boycotting and buycotting, previously rarely measured, within their “core indicators of engagement.” The review of behavioral items here identifies several additional indicators not included among the “core indicators” that this group of scholars identified. The measurement within the reviewed studies of behaviors such as membership in political organizations, online political discussion, and voluntary exposure to political content suggests that further definition and refinement of the concept of political behavior among adolescents may be necessary. Focusing on adolescent behavior may pose particular challenges to identification of the full domain of content, because youth may engage in continually new and unidentified ways (Keeter, et al., 2003). This is consistent with literature advocating for more expansive definitions of political participation, which suggests that standard conceptions of participation neglect other ways that youth engage (Cohen, 2006; Gauthier, 2003; Ginwright, 2006; Jones & O’Toole, 2001; Kirshner, Strobel, & Fernandez, 2003; Sanchez-Jankowski, 2002; Sherrod, et al., 2002; Smith, Lister, Middleton, & Cox, 2005).

Across the studies reviewed here, it is apparent that researchers do not necessarily identify the same facets of political behavior as worthy of measurement. For example, the CIRCLE and CDC (2004) National Youth Survey measures four indicators of political behavior, while the NASS (1998) New Millennium Survey measures 12 distinct indicators. Such differences suggest that measures of political behavior within a particular study may not fully represent the content domain. More work is needed in this field to determine whether multiple indicators share an underlying latent variable, or whether each indicator represents a distinct facet of political behavior. The low correlations between items measuring each of the dimensions identified by Jenkins, et al. (2003) – the categories of political behavior used here – suggest that indicators likely represent distinct constructs.

Review of items measuring political behavior also raises concerns about content validity in terms of the ability of measures of an indicator to actually represent that indicator. The ability of single-item measures to sufficiently represent a concept is particularly questionable (Kerlinger, 1986). It is

evident from this analysis that researchers conceive of the same indicators in somewhat different ways, as the terminology they use to measure a specific indicator can vary substantially. What remains to be determined is whether these varying worded items are equally representative of the indicator's content domain.

### **Self-report**

Reliance on self-report measures of behavior, while necessary, poses substantial problems of reliability and validity in measures of adolescent political behavior. With self-reported items, slight changes in question wording, format, or question context can have a significant impact on the results (Schwarz, 1999). Comparison of item measures shows wide variety in how questions are worded and the response options that are offered; as a result, it is likely that these diverse questions yield differing results, limiting comparability across studies. Keeter, et al. (2002) note that there is substantial literature supporting the use of self-reporting in measures of voting and registration, but little literature on the validity and reliability of self-reporting of other political behaviors. Social desirability may also impact youth responses, although different types of political activity may be differentially socially desirable (Keeter, Zukin, et al., 2002).

### **Item wording**

Lack of clarity and consistency in item wording raise concerns not only about content validity, but also about measurement reliability. If a respondent does not understand an item in the way that the researcher intended, the item is then unlikely to represent the universe of content as understood by the researcher, and accurate measures are unlikely to result. Schwarz and Oyserman (2001) cite an example of this in research by Belson (1981) that is directly relatable to the measurement of adolescent political behavior. Belson (1981) found that respondents' interpretations of "reading a magazine" were widely divergent. Respondents variously interpreted the item to mean seeing a magazine at the newsstand, reading the cover, or having subscribed to the magazine. Similarly, Brady (1999) argues that the use of words such as "discussion" in measures of political participation may contain ambiguity, as discussion can mean different things to different people.

Similar concerns may stem from the use of words such as "politics" and "government," which may not necessarily be clearly and consistently understood by youth (see Flanagan, Galloway, Gill, Galloway, & Nti, 2005, for example, for a discussion of different understandings of democracy among youth). For example, focus group participants identified a wide array of words that occurred to them when "politics" or "government" were mentioned (Zukin, et al., 2006). This suggests that the use of such terminology in behavioral items may be understood differently by different respondents. Without multiple measures of the same indicator within a study, it is difficult to gauge the degree to which ambiguity in question content affects the measurement of political behavior.

In addition to item ambiguity, inconsistency in item terminology across studies is prevalent, and may well signal lack of clarity in individual items. Indicators such as boycotting, attention to print media, and helping political campaigns and organizations are measured by different studies in multiple ways that may or may not reflect different meanings. It may be that this distinct item wording similarly measures the same underlying variable and can produce reliable measures of the various indicators; empirical testing is necessary to determine whether this is the case. However, differences in the wording of items intended to measure the same concept may result in very distinct sets of responses.

For example, Keeter, et al. (2002) linked a 13-point difference in reported voluntarism across two surveys to differences in question wording. Given the diversity in wording among measures of some indicators, similar discrepancies are possible in the reporting of adolescent political behavior.

### **Reference periods**

A prominent source of measurement error suggested by this analysis is the wide variety of reference periods provided for the reporting of past or future behavior. Items measuring the same indicator may provide time periods ranging from the length of an election campaign to a few years to an undefined period of time in the past. Time periods for recalling activity should be selected purposively and reflect theory (DeVillis, 1991); however, the wide array of item reference periods suggests a lack of theoretical basis. Memory errors are common in survey research (Bradburn, 1983), and the lengths of reference periods are commonly believed to impact the reliability of data (Bradburn, 1983; Schaeffer & Presser, 2003; Schwarz, 1999; Schwarz & Oyserman, 2001; Sheatsley, 1983). The attentiveness measures typically use shorter reference periods, which makes conceptual sense given the regularity with which these behaviors can occur (Schaeffer & Presser, 2003). Although electoral and expressive activities are likely to take place irregularly, the use of long periods of recall introduces substantial possibility of error (Bradburn, 1983). Researchers may want to consider using salient events as markers of time, rather than “years” (Schwarz & Oyserman, 2001). For example, it may be more meaningful to ask adolescents to remember activity they have engaged in during their years in high school.

Reference periods can impact the likelihood of over- or under-reporting, but also may influence the type of activity that a respondent reports (Schaeffer & Presser, 2003; Schwarz, 1999). Respondents may use the time period provided to make assumptions about the kinds of activity the researcher is asking about. As a result, comparison of responses to a similar question lack meaning if reference periods differ in length (Schwarz & Oyserman, 2001), as they do across the indicators examined here. Worth noting are the handful of items that combine past and future, current activity and intent, into one single item. For example, Monitoring the Future respondents (Johnston, et al., 2004) are asked in a single item whether they have “ever done” or “plan to do” a specific activity such as work as part of a political campaign or write to public officials. Unlike other items measured here, Johnston, et al. (2004) do not conceptually differentiate between past and future activity; as a result, reported findings from this study cannot be compared with findings on similar items from other studies. The various examples reviewed here indicate that more consistency in reference periods and grounding in theory would strengthen measurement and comparability of political behavior.

### **Response options**

Response options can be particularly influential when behavior is self-reported (Schwarz, 1999; Schwarz & Oyserman, 2001). This is particularly likely to be the case for behaviors that are poorly defined or that may be unclear or unmemorable to respondents (Schwarz, 1999; Schwarz & Oyserman, 2001). Given the apparently low rates of political behavior among adolescents, the effect of response alternatives on self-reporting may be particularly prominent in measures of political behavior.

The response options used to measure past and current activity generally lack variability. Respondents are often asked whether or not they have participated in an activity. Measures with more variability, such as reporting the number of times one participated in the activity, can allow for greater differentiation among youth and stronger statistical analyses. Measures of frequency among these items also may be problematic. With the exception of the attentiveness items that specifically ask for the number of days a respondent participated in an activity, the measures of behavioral frequency used in these studies are actually measures of relative frequency. Such items may result in a respondent's comparison of his or her behavior with others, rather than an objective reporting of activity frequency (Schaeffer & Presser, 2003). These response options, such as "sometimes" and "often," are referred to by Schwarz and Oyserman (2001) as "vague quantifiers," meaning that respondents may interpret the same response option differently.

The same response option may mean different things to a respondent depending on the substance of the item stem; for example, to vote "frequently" likely represents a different degree of regularity than to "frequently" read a newspaper. Moreover, the same response option can have a different meaning for different respondents. If a respondent grew up in a family where newspapers are read weekly, then twice-a-week newspaper reading may be perceived as "often," whereas if a respondent was raised in a family where newspapers are read daily, then twice-a-week newspaper reading may instead be perceived as "somewhat often." Given the influence that frequency scale response options may have on reported behavior, measures of behavior using different frequency scales cannot readily be compared (Schwarz, 1999). Accordingly, measures of indicators such as attention to print media, for which five different versions of frequency response options are used across the reviewed studies, cannot be compared with each other.

### Single-item measures

The variety of dimensions of political behavior has traditionally resulted in the use of single-item measures (Brady, 1999). This is the case among many of the items reviewed in this paper, where indicators of political behavior rely predominantly on single-item measures, with scales and indices much less common. Brady (1999) argues that the complexity of political behavior cannot easily be summarized into a multi-item scale. However, the use of single-item measures, in combination with the common use of binary options in the measurement of current and past activity, results in limited data variability, and accordingly, limited reliability.

The use of single-item measures also minimizes the ability to identify whether a problem exists with a particular measure, and can result in false interpretation of data. Furthermore, as is evident through this comparison of measures, an indicator can be measured in multiple ways. It is not clear whether one single-item measure of an indicator is more reliable than another. Use of multiple measures within a single study might allow for better differentiation between problems with a measure and accurate results.

### Conclusion

How we measure political behaviors may differ from measurement of other adolescent behaviors. For example, substance abuse or dating behavior may occur more frequently and may be measurable using multiple measures. Some political behaviors, in contrast, are likely to be episodic (Keeter, et al., 2003); wearing a campaign button or convincing a friend to vote are most likely to occur when

an election is taking place. Political behaviors are also particularly subject to external triggers (Keeter, et al., 2003): a terrorist attack, a controversial ballot measure, or a candidate who performs extensive youth outreach might spur unique levels of involvement in political behaviors. Moreover, despite the analytic appeal of including multiple measures of the same indicator, as discussed above, some political behaviors may not lend themselves to being queried in multiple ways in the same survey. How many different ways in the same study can we ask if one intends to vote?

Despite these constraints, this review of measures of adolescent political behavior suggests that there is a need for increased measurement consistency and precision across studies. Currently, studies use an array of measures of political behavior borrowed from a variety of sources or created for the specific study, resulting in items that differ across studies in terms of wording, reference periods, and response options. Further examination of whether there is a qualitative, or quantitative, difference between these differently worded, but apparently conceptually similar items is needed.

Scholars like Keeter and colleagues (Andolina, et al., 2003; Jenkins, et al., 2003; Keeter, et al., 2003; Keeter, Zukin, et al., 2002; Zukin, et al., 2006) and Flanagan, et al. (2007) have begun the process of improving the measurement of political participation, but more study is needed. Of particular import is the identification of reliable, valid measures of each indicator. Analyses of measures using variant wording are needed in order to determine whether such distinct items measure the same latent variable (preliminary work with adults has been conducted by Keeter, Zukin, et al., 2002). Once reliable measures of each indicator have been identified, Keeter and colleagues' factor analyses of different conceptual groupings of activity should be revisited. Such analyses should include the additional indicators identified here that are not included in the "core indicators of engagement," in order to examine their ability to form factors with other measures.

After reliable measures of the indicators and distinct conceptual categories have been identified, multi-item measures of some of the distinct concepts might be developed, increasing the reliability of political behavior measures. Development of multi-item measures can also lay the groundwork for the development of standardized measures that can then be tested for reliability and validity across different groups of adolescents. Creation of standardized measures of adolescent political behavior would go far in increasing consistency across political engagement studies; even prior to the development of standardized measures, however, researchers should strive to increase the consistency of the measures that they use.

The current lack of consistency in measures of adolescent political behavior that researchers use substantially limits the kinds of conclusions that can be made about political engagement data. Without strong, reliable and valid measures, a basis for interpretation of data about the political behavior of adolescents is lacking (Gillespie, 2000). The fact that many of these surveys query not just adolescents but also older youth raises questions about the strength of analyses of youth political behavior in general. Researchers may not be able to draw meaningful conclusions about the effectiveness of interventions in achieving desired political outcomes. The ability to compare trends in behavior over time using multiple sources of survey data or to accurately test hypotheses about predictors of political participation is also limited. Attention to construction of measures of adolescent political behavior that are consistent, reliable, and valid, and thus subject to minimal measurement error, is essential to building knowledge about the development of connections between adolescents and the polity.

**References**

- Andolina, M., Keeter, S., Zukin, C., & Jenkins, K. (2002a). CIRCLE National Civic Engagement Survey I. College Park, MD: The Center for Information & Research on Civic Learning & Engagement.
- Andolina, M., Keeter, S., Zukin, C., & Jenkins, K. (2002b). CIRCLE National Youth Survey of Civic Engagement 2002. College Park, MD: The Center for Information and Research on Civic Learning and Engagement.
- Andolina, M., Keeter, S., Zukin, C., & Jenkins, K. (2003). *A guide to the index of civic and political engagement*. College Park, MD: The Center for Information & Research on Civic Learning & Engagement.
- Battistoni, R. (1997). Service learning and democratic citizenship. *Theory into Practice*, 36(3), 150-156.
- Beaumont, E., Colby, A., Ehrlich, T., & Torney-Purta, J. (2006). Promoting political competence and engagement in college students: An empirical study. *Journal of Political Science Education*, 2, 249-270.
- Belson, W. A. (1981). *The design and understanding of survey questions*. Aldershot: Gower.
- Billig, S. H., Root, S., & Jesse, D. (2005). *The impact of participation in service-learning on high school students' civic engagement* (Working Paper 33). College Park, MD: Center for Information and Research on Civic Learning and Engagement.
- Bradburn, N. M. (1983). Response effects. In P. Rossi, J. Wright & A. Anderson (Eds.), *Handbook of Survey Research* (pp. 289-328). New York: Academic Press.
- Brady, H. (1999). Political participation. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of Political Attitudes* (pp. 737-801). San Diego: Academic.

Celestine, J. (n.d.). African-American youth and civic engagement: A brief review of the literature: Black Youth Project, Center for the Study of Race, Politics and Culture, University of Chicago.

Center for Information and Research on Civic Learning and Engagement (CIRCLE) & Center for Democracy and Citizenship (CDC). (2004). National Youth Survey, 2004. Retrieved October 1, 2008 from <http://www.civicyouth.org>

Center for Information and Research on Civic Learning and Engagement (CIRCLE), Center for Democracy and Citizenship (CDC), & Partnership for Trust in Government (PTG). (2002). National Youth Survey, 2002. Retrieved October 1, 2008 from <http://www.civicyouth.org>

Center for the Study of Race Politics and Culture. (2006a). Black Youth Project Youth Culture Survey. Retrieved October 1, 2008 from [http://blackyouthproject.uchicago.edu/surveys/final\\_survey.pdf](http://blackyouthproject.uchicago.edu/surveys/final_survey.pdf)

Center for the Study of Race Politics and Culture. (2006b). Youth Culture Survey methodology report: Abridged version. Retrieved October 1, 2008 from [http://blackyouthproject.uchicago.edu/surveys/methodology\\_report.pdf](http://blackyouthproject.uchicago.edu/surveys/methodology_report.pdf)

Cohen, C. J. (2006). African American youth: Broadening our understanding of politics, civic engagement, and activism [Electronic Version]. Retrieved March 13, 2006 from <http://ya.ssrc.org/african/Cohen/pf/>.

DeVillis, R. F. (1991). Guidelines in scale development. In R. F. DeVillis (Ed.), *Scale Development: Theory and Applications* (pp. 51-90). Newbury Park: Sage.

Erikson, E. (1968). *Identity, Youth, and Crisis*. New York: W.W. Norton.

Flanagan, C., Gallay, L. S., Gill, S., Gallay, E., & Nti, N. (2005). What does democracy mean?: Correlates of adolescents' views. *Journal of Adolescent Research*, 20, 193-218.

- Flanagan, C., Syvertsen, A., & Stout, M. (2007). *Civic measurement models: Tapping adolescents' civic engagement (CIRCLE Working Paper 55)*. College Park, MD: The Center for Information & Research on Civic Learning and Engagement
- Galston, W. A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Science, 4*, 217-234.
- Gauthier, M. (2003). The inadequacy of concepts: The rise of youth interest in civic participation in Quebec. *Journal of Youth Studies, 6*(3), 265-276.
- Gibson, C. (2001). *From inspiration to participation: A review of perspectives on youth civic engagement*. The Grantmaker Forum on Community & National Service.
- Gillespie, D. (2000). Measurement in social research. Unpublished Draft chapter.
- Ginwright, S. (2006). Toward a politics of relevance: Race, resistance and African-American youth activism [Electronic Version]. Retrieved March 13, 2006 from <http://ya.ssrc.org/african/Ginwright/pf/>.
- Hartry, A., & Porter, K. (2004). *We the People curriculum: Results of pilot test (A report to the Center for Civic Education)*. Calabassas, CA: Center for Civic Education.
- Jenkins, K., Andolina, M., Keeter, S., & Zukin, C. (2003). *Is Civic Behavior Political? Exploring the Multidimensional Nature of Political Participation*.
- Johnston, L. D., Bachman, J. G., O'Malley, P. M., & Schulenberg, J. E. (2004). *Monitoring the Future: A Continuing Study of American Youth (12th Grade Survey), 2004*. (Computer file No. ICPSR04264-v1). Ann Arbor, MI: Inter-university Consortium for Political and Social Research [producer and distributor].
- Jones, S., & O'Toole, T. (2001). *Rethinking young people's political participation*.

- Kahne, J., Chi, B., & Middaugh, E. (2006). Building social capital for civic and political engagement: The potential for high school civics courses. *Canadian Journal of Education, 29*(2), 387-409.
- Keeter, S., Andolina, M., Jenkins, K., & Zukin, C. (2002). *Schooling and civic engagement in the U.S.* Paper presented at the Annual Meeting of the American Political Science Association, Boston, MA.
- Keeter, S., Jenkins, K., Zukin, C., & Andolina, M. (2003, March 11-12). *Three core measures of community-based civic engagement: Evidence from the Youth Civic Engagement Indicators Project.* Paper presented at the Child Trends Conference on Indicators of Positive Development, Washington, DC.
- Keeter, S., Zukin, C., Andolina, M., & Jenkins, K. (2002, April 25-28). *Improving the measurement of political participation.* Paper presented at the Midwest Political Science Association, Chicago, IL.
- Kerlinger, F. (1986). Reliability. In F. Kerlinger (Ed.), *Foundations of Behavioral Research* (3rd ed., pp. 404-415). New York: Holt, Rinehart and Winston.
- Kirshner, B., Strobel, K., & Fernandez, M. (2003). Critical civic engagement among urban youth. *Penn GSE Perspectives on Urban Education, 2*(1).
- Lopez, M. H., Levine, P., Both, D., Kiesa, A., Kirby, E., & Marcelo, K. (2006). *The 2006 Civic and Political Health of the Nation: Questionnaire and Complete Tabulations.* College Park, MD: The Center for Information and Research on Civic Learning and Engagement.
- McBride, A. M. (2003). Asset ownership among low-income and low-wealth individuals: Opportunity, asset ownership, and civic engagement (Doctoral dissertation, Washington University, 2003). *Dissertation Abstracts International, 64*, 3483.
- McDevitt, M., & Chaffee, S. (2000). Closing gaps in political communication and knowledge: Effects of a school intervention. *Communication Research, 27*(3), 259-292.

- McDevitt, M., & Kiouisis, S. (2006). Deliberative learning: An evaluative approach to interactive civic education. *Communication Education, 55*(3), 247-264.
- McDevitt, M., Kiouisis, S., Wu, X., Losch, M., & Ripley, T. (2003). *The civic bonding of school and family: How Kids Voting students enliven the domestic sphere* (No. CIRCLE Working Paper 07). College Park, MD: Center for Information and Research on Civic Learning and Engagement.
- Meirick, P. C., & Wackman, D. B. (2004). Kids Voting and political knowledge: Narrowing gaps, informing votes. *Social Science Quarterly, 85*(5), 1161-1177.
- Metz, E., McLellan, J., & Youniss, J. (2003). Types of voluntary service and adolescents' civic development. *Journal of Adolescent Research, 18*(2), 188-203.
- Metz, E., & Youniss, J. (2005). Longitudinal gains in civic development through school-based required service. *Political Psychology, 26*(3), 413-437.
- National Association of Secretaries of State (NASS). (1998). New Millenium Survey.
- Niemi, R. G., Hepburn, M. A., & Chapman, C. (2000). Community service by high school students: A cure for civic ills? *Political Behavior, 22*(1), 45-69.
- O'Toole, T., Lister, M., Marsh, D., Jones, S., & McDonagh, A. (2003). Tuning out or left out? Participation and non-participation among young people. *Contemporary Politics, 9*(1), 45-61.
- Olander, M. (2003). *How young people express their political views*. (Fact sheet). College Park, MD: The Center for Information and Research on Civic Learning and Engagement.
- Sanchez-Jankowski, M. (2002). Minority youth and civic engagement: The impact of group relations. *Applied Developmental Science, 6*(4), 237-245.
- Sapiro, V. (2004). Not your parents' political socialization: Introduction for a new generation. *Annual Review of Political Science, 7*, 1-23.

- Schaeffer, N. C., & Presser, S. (2003). The science of asking questions. *Annual Review of Sociology, 29*, 65-88.
- Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist, 54*(2), 93-105.
- Schwarz, N., & Oyserman, D. (2001). Asking questions about behavior: Cognition, communication, and questionnaire construction. *American Journal of Evaluation, 22*, 127-160.
- Sheatsley, P. (1983). Questionnaire construction and item writing. In P. Rossi, J. Wright & A. Anderson (Eds.), *Handbook of Survey Research*. New York: Academic Press.
- Sherrod, L. R. (2006). Promoting citizenship and activism in today's youth. In S. Ginwright, P. Noguera & J. Cammarota (Eds.), *Beyond Resistance! Youth Activism and Community Change* (pp. 287-299). New York: Routledge.
- Sherrod, L. R., Flanagan, C., & Youniss, J. (2002). Dimensions of citizenship and opportunities for youth development: The what, why, when, where, and who of citizenship development. *Applied Developmental Science, 6*(4), 264-272.
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology, 57*, 255-284.
- Smith, N., Lister, R., Middleton, S., & Cox, L. (2005). Young people as real citizens: Towards an inclusionary understanding of citizenship. *Journal of Youth Studies, 8*(4), 425-443.
- Stolle, D., & Hooghe, M. (2004). The roots of social capital: Attitudinal and network mechanisms in the relation between youth and adult indicators of social capital. *Acta Politica, 39*, 422-441.
- Torney-Purta, J. (2001). What adolescents know about citizenship and democracy. *Educational Leadership, 59*(4), 45-50.

- Torney-Purta, J., Lehmann, R., Oswald, H., Schulz, W., et al. (2001). *Citizenship and Education in Twenty-eight Countries: Civic Knowledge and Engagement at Age Fourteen*. Amsterdam, The Netherlands: The International Association for the Evaluation of Educational Achievement.
- U.S. Dept. of Education National Center for Education Statistics. (1996). *National Household Education Survey* (Computer file. ICPSR version). Washington, DC: U.S. Dept. of Education, Office of Educational Research and Improvement [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].
- U.S. Dept. of Education National Center for Education Statistics. (2004). *National Education Longitudinal Study: Base year through fourth follow-up, 1988-2000* (Computer file No. ICPSR version). Washington, DC: U.S. Dept. of Education, National Center for Education Statistics [producer]. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor].
- Verba, S., Schlozman, K. L., & Brady, H. (1995). *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.
- Watts, R. J., & Guessous, O. (2006). *Civil rights activists in the information age: The development of math literacy workers* (No. CIRCLE Working Paper 50). College Park, MD: The Center for Civic Learning and Engagement.
- Westheimer, J., & Kahne, J. (2004). Educating the "good" citizen: Political choices and pedagogical goals. *PS Online*, 37(2), 241-247.
- Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth Civic Engagement in the Twenty-First Century. *Journal of Research on Adolescence*, 12(1), 121-148.

Youniss, J., McLellan, J., & Yates, M. (1997). What we know about engendering civic identity. (Social Capital, Civil Society and Contemporary Democracy). *American Behavioral Scientist*, 40(5), 620-631.

Youniss, J., & Yates, M. (1997). *Community Service and Social Responsibility in Youth*. Chicago: University of Chicago Press.

Zukin, C., Keeter, S., Andolina, M., Jenkins, K., & Delli Carpini, M. (2006). *A New Engagement? Political Participation, Civic Life, and the Changing American Citizen*. Oxford: Oxford University Press.

## Appendix A: Electoral Activity Items

### Intent to vote/register

- Likelihood would vote after graduating from high school (1 no chance - 5 definitely) (Metz & Youniss, 2005)
- Intent to vote in the future (1 not very likely - 5 definitely will) (Metz, et al., 2003)
- “We know that most people don’t vote in all elections. Usually between one-quarter to one-half of those eligible actually come out to vote. As an adult, how often do you think you will vote in local and national elections?” (always; sometimes; rarely; never) (Andolina, et al., 2002a)
- “Have you ever done, or do you plan to do, the following things? Vote in a public election.” (I probably won’t do this; don’t know; probably will do this; I have already done this) (Johnston, et al., 2004)
- “When you are an adult what do you expect that you will do...vote in national elections.” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)
- “How likely are you to register and vote in the next presidential election two years from now” (almost certain; very likely; somewhat likely; not very likely) (NASS, 1998)

### Campaign contribution

#### Past

- “In the past 12 months, did you contribute money to a candidate, a political party or any organization that supported candidates?” (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)
- “Have you given money to a candidate, party or political issue (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)

#### Intent

- “Are you likely to contribute to: Political parties or organizations?” (Definitely not; probably not; don’t know; probably will; definitely will; already have) (Johnston, et al., 2004)
- “Are you likely to contribute to: Citizen lobbies?” (Definitely not; probably not; don’t know; probably will; definitely will; already have) (Johnston, et al., 2004)

### Displaying political paraphernalia

- Worn a button or displayed a bumper sticker (Hartry & Porter, 2004)
- “Do you wear a campaign button, put a sticker on your car, or place a sign in front of your house, or aren’t these things you do?” (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

### Electoral persuasion

- “When there is an election taking place do you generally talk to any people and try to show them why they should vote for or against one of the parties or candidates, or not” (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

### Helping political campaigns and organizations

#### Past

- “Please tell me whether you have done this in the last few years. Volunteered in a political campaign.” (have done this/have not done this) (NASS, 1998)
- “Please tell me whether you have done this in the past couple of years or not...Volunteered in a political campaign.” (yes/no) (CIRCLE, et al., 2002)
- “Have you worked or volunteered on a political campaign for a candidate or party (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- Have you ever spent time volunteering for “political organization or candidates running for office?” (yes/no) In the last 12 months, is this something “you do on a regular basis, or just once in a while?” (regular basis; once in a while) (Lopez, et al., 2006)
- Have students worked for a political party or candidate (Hartry & Porter, 2004)
- “Can you tell me if you have volunteered for this type of group or organization within the last 12 months? A political organization or candidates running for office” (yes/no) “Thinking about your work for [a political organization or candidates running for office] over the last 12 months. Is this something you do on a regular basis or just once in a while?” (regular basis; once in a while). “Have you worked for this group in the last month or not, or can’t you remember?” (in the last month; longer than one month ago; can’t remember) (Andolina, et al., 2002a)
- “Please mark all the types of groups you have worked for without pay in the last 12 months: A political organization or candidates running for office” (mark if applies) “Is this something you do on a regular basis, or just once in a while?” (regular basis; once in a while) “When was the most recent time you worked for (the group)” (in the last week; in the last month; in the last six months; in the last 12 months; don’t know) (Andolina, et al., 2002b)
- “Please tell me whether you have done this in the past couple of years or not...Worked for a political party” (yes/no) (CIRCLE, et al., 2002)
- “Have you volunteered this year for any political organizations or causes” (yes/no) (McDevitt & Kioussis, 2006)

#### Intent

- “How likely is it that you would do this in the future. Volunteered in a political campaign” (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)
- “Tell me how likely it is that you will perform that action in the next couple of years...Volunteer in a political campaign” (extremely likely; very likely; somewhat likely; a little likely; not likely at all) (CIRCLE, et al., 2002)

- “Have you ever done, or do you plan to do, the following things? Work in a political campaign.” (I probably won’t do this; don’t know; probably will do this; I have already done this) (Johnston, et al., 2004)
- “Tell me how likely it is that you will perform that action in the next couple of years...Work for a political party” (extremely likely; very likely; somewhat likely; a little likely; not likely at all) (CIRCLE, et al., 2002)
- “If a candidate or political organization contacted you asking for help in solving [specified] issue, how likely would you be to volunteer” (very likely; somewhat likely; not very likely; not likely at all) (CIRCLE & CDC, 2004)
- Intent to “work on a political campaign” (1 not very likely – 5 definitely will) (Metz, et al., 2003; Metz & Youniss, 2005)

**Membership in political organizations**

*Past*

- “Please tell me whether you have done this in the last few years. Joined a club or organization that deals with government and politics – like the Debate or Model UN Club.” (have done this/have not done this) (NASS, 1998)
- “Please tell me whether you have done this in the past couple of years or not...Joined a club or organization that deals with government or politics” (yes/no) (CIRCLE, et al., 2002)
- “Have you been active in or joined a political group (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- Been involved in past 12 months with “any association concerned with social or political issues, such as reducing taxes, protecting the environment, promoting prayer in the schools, or any other causes.” (yes/no) (Andolina, et al., 2002a)
- “Which of the following organized activities have you participated in: Political clubs (i.e., Young Democrats or Republicans).” (check if applies) (Andolina, et al., 2002b)
- “Have you participated in the following organizations: a youth organization affiliated with a political party or union” (yes/no) (Torney-Purta, et al., 2001)

*Intent*

- “How likely is it that you would do this in the future. Joined a club or organization that deals with government and politics – like the Debate or Model UN Club.” (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)
- “Tell me how likely it is that you will perform that action in the next couple of years...Join a club or organization that deals with government or politics” (extremely likely; very likely; somewhat likely; a little likely; not likely at all) (CIRCLE, et al., 2002)
- “When you are an adult, what do you expect that you will do...join a political party.” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)

**Political candidacy**

- “When you are an adult, what do you expect that you will do...be a candidate for a local or city office” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)

**Student government participation**

*Past*

- “Have you participated in student government?” (yes/no) (McDevitt, et al., 2003)
- “Have you participated in the following organizations: A student council/student government” (yes/no) (Torney-Purta, et al., 2001)
- “Please mark one for each activity that you have participated in this school year. Student government.” (School does not offer; did not participate; participated; participated as an officer) (U.S. Dept. of Education National Center for Education Statistics, 2004)
- “Please mark one for each activity in which you have participated this school year. Circle the highest number that applies on each line. Student government” (School does not have; did not participate; participated; participated as an officer, leader) (U.S. Dept. of Education National Center for Education Statistics, 2004)
- “Have you or will you have participated in any of the following school activities during the current school year, either as a member or as an officer? Student Council.” (Didn’t participate; participated as a member; participated as an officer) (U.S. Dept. of Education National Center for Education Statistics, 2004)
- “To what extent have you participated in the following school activities during this school year? Student council or government.” (Not at all; slight; moderate; considerable; great extent) (Johnston, et al., 2004)
- “Do any of these [organized groups or clubs R participated in high school] include student government or organizations concerned with social or political issues?” (yes/no) (Andolina, et al., 2002a)
- “This school year, have you served as an officer or representative or run for office or worked on a campaign for your student government?” (yes/no) (U.S. Dept. of Education National Center for Education Statistics, 1996)
- “This school year, have you served as an officer or representative, run for office, or worked on a campaign for your student government” (yes/no) (Andolina, et al., 2002b)
- “Please tell me whether you have done this in the past couple of years or not... Ran for an elected leadership type position, including student government “ (yes/no) (CIRCLE, et al., 2002)
- “Please tell me whether you have done in this in the last few years. Run for an elected leadership type position” (have done this/have not done this) (NASS, 1998)

*Intent*

- “Tell me how likely it is that you will perform that action in the next couple of years...Run for an elected leadership type position, including student government” (extremely likely; somewhat likely; a little likely; not likely at all) (CIRCLE, et al., 2002)
- “How likely is it that you would do this in the future. Run for an elected leadership type position (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)

## Appendix B: Expressions of Political Voice Items

### Protesting, demonstrating, marching

#### *Past*

- Participated in a peaceful demonstration or protest (Hartry & Porter, 2004)
- “Please tell me whether you have done this in the past couple of years or not...Participated in a march or demonstration for a political cause” (yes/no) (CIRCLE, et al., 2002)
- “Taken part in a protest, march, or demonstration” Ever or not? Past 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)
- “Please tell me whether you have done this in the last few years. Participated in a march or demonstration for a political cause.” (have done this/have not done this) (NASS, 1998)
- “Have you ever done, or do you plan to do, the following things? Participate in a lawful demonstration.” (I probably won’t do this; don’t know; probably will do this; I have already done this) (Johnston, et al., 2004)
- “Have you attended a protest meeting, demonstration or sit in (in the last 12 months)?” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- Frequency of participating in rallies (1 never/almost never – 5 always/almost always) (Billig, et al., 2005)

#### *Intent*

- “Tell me how likely it is that you will perform that action in the next couple of years...Participate in a march or demonstration for a political cause” (extremely likely; somewhat likely; a little likely; not likely at all) (CIRCLE, et al., 2002)
- “How likely is it that you would do this in the future. Participated in a march or demonstration for a political cause” (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)
- “What do you expect that you will do during the next few years...spray-paint protest slogans on walls” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)
- “What do you expect that you will do during the next few years...expect to block traffic as a form of protest” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)
- “What do you expect that you will do during the next few years...occupy public buildings as a form of protest (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)
- “What do you expect that you will do during the next few years... participate in a non-violent [peaceful] protest march or rally (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)
- Intent to “demonstrate for a cause” (1 not very likely – 5 definitely will) (Metz, et al., 2003; Metz & Youniss, 2005)

### Boycotting/buycotting

#### *Boycott*

- “Have you ever decided NOT to buy something from a certain company because you disagree with the social, environmental, worker, or political policies of the company that distributes the item?” (yes/no) (CIRCLE & CDC, 2004)
- “NOT bought something because of conditions under which the product is made, or because you dislike the conduct of the company that produces it” Ever or not? Last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)
- “Have you participated in a boycott (in the last 12 months)?” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- “Have you ever avoided buying something in order to register a protest or send a message?” (yes, within the last 12 months; yes, but not within the last 12 months; no, haven’t done it) (Andolina, et al., 2002b)
- Frequency of refusing to purchase a product because of where it was made (1 never/almost never – 5 always/almost always) (Billig, et al., 2005)
- boycotted or buycotted products (Hartry & Porter, 2004)
- “Have you ever done, or do you plan to do, the following things? Boycott certain products or stores.” (I probably won’t do this; don’t know; probably will do this; I have already done this) (Johnston, et al., 2004)
- Intent to “boycott a product” (1 not very likely – 5 definitely will) (Metz, et al., 2003; Metz & Youniss, 2005)

#### *Buycott*

- “Have you ever bought something from a certain company because you agreed with the social, environmental, worker or political policies of the company that distributes the item?” (yes/no) (CIRCLE & CDC, 2004)
- “Bought a certain product or service because you like the social or political values of the company that produces or provides it” Ever or not? Last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)
- “Have you engaged in buycotting, that is buying a certain product or service because you like the social or political values of the company that produces or sells the product (in the last 12 months)?” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)

### Petitioning

#### *General*

- “Have you signed a paper or email petition (in the last 12 months)?” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- “What do you expect that you will do during the next few years... expect to collect signatures for a petition (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)

#### *Email*

- “Have you ever signed an e-mail petition, such as an e-mail message that you add your name to and forward on to others you know?” (yes, within last 12 months, yes, but not within last 12 months, no, haven’t done it, don’t know) (Andolina, et al., 2002b)
- “Signed an e-mail petition about a social or political issue” Ever or not? In last 12 months? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

*Written*

- “Signed a written petition about a political or social issue” Ever or not? Last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)
- “And how about any other kind of petition – have you ever signed a written petition related to a political or social issue that was important to you?” (yes, within last 12 months; yes, but not within the last 12 months; no, haven’t done it) (Andolina, et al., 2002b)

**Contacting media to express political opinion**

*Print Media -- Past*

- “Have you written an article or letter to the editor about a political issue or problem (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- “Contacted a newspaper or magazine to express your opinion on an issue” Ever or not? In last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

*Broadcast Media -- Past*

- “Called in to a radio or television talk show to express your opinion on a political issue, even if you did not get on the air” Ever or not? In last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

*Print Media -- Intent*

- “When you are an adult, what do you expect that you will do: Write letters to a newspaper about social or political concerns” (I will certainly not do this; I will probably not do this; I will probably do this; I will certainly do this; don’t know) (Torney-Purta, et al., 2001)

**Contacting public officials**

*Past*

- “Have you contacted a public official or agency (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- “Contacted or visited a public official – at any level of government – to ask for assistance or to express your opinion” Ever? In last 12 months? (no, have not done it; yes have done it, but not in the last 12 months; yes have done it within the last 12 months; have done it; don’t know whether in last 12 months or not) (Andolina, et al., 2002a; Lopez, et al., 2006)
- Frequency of writing letters expressing an opinion to a public official (1 never/almost never – 5 always/almost always) (Billig, et al., 2005)
- “Have you ever done, or do you plan to do, the following things? Write to public officials.” (I probably won’t do this; don’t know; probably will do this; I have already done this) (Johnston, et al., 2004)

**Contacting (in general)**

- Contacted a public official or the media about a political issue or cause (Hartry & Porter, 2004)
- “Have you ever written a letter to a newspaper or government official” (yes, within the last 12 months; yes, but not within the last 12 months; no, haven’t done it) (Andolina, et al., 2002b)
- “Please tell me whether you have done this in the last few years. Wrote a letter to a newspaper or government official.” (have done this/have not done this) (NASS, 1998)
- “How likely is it that you would do this in the future. Wrote a letter to a newspaper or government official” (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)

**Canvassing**

- “Worked as a canvasser - having gone door to door for a political or social group or candidate” Ever or not? Last 12 months or not? (yes/no) (Andolina, et al., 2002a; Lopez, et al., 2006)

**Expressing views at public meeting**

- The questionnaires described a hypothetical scenario in which Congress passed a bill to declare English the official language of the nation. “Would you be willing to express your views about this topic at a public meeting?” (1 definitely no – 5 definitely yes) (McDevitt, et al., 2003)

**Online political discussion**

- “Have you written and sent an email or written a blog about a political issue, candidate or political party (in the last 12 months)” (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- “Please tell me whether you have done this in the past couple of years or not...Participated in online political discussions or visited a politically-oriented website” (yes/no) (CIRCLE, et al., 2002)
- “Tell me how likely it is that you will perform that action in the next couple of years...Participate in online political discussions or visit a politically oriented website” (extremely likely, somewhat likely, a little likely, not likely at all) (CIRCLE, et al., 2002)

## Appendix C: Political Attentiveness Items

### Attention to government and public affairs

#### *“Attention”*

- Attention to News Scale: "How much attention did you pay to news about the national government in Washington, DC?" "In the recent election, how much attention did you pay to news stories about the ballot propositions?" "What about ads on TV? How much attention did you pay to ads the candidates were running on television?" (1-5) (McDevitt & Chaffee, 2000)
- "How much attention have you paid to news about the election campaign?" (1-5) (McDevitt, et al., 2003)
- "How much attention have you paid to news about the proposition to expand gambling/restrict bilingual education/limit class size in Arizona/Colorado/Florida?" (1-5) (McDevitt, et al., 2003)
- Two item scale: How much attention R paid to news about the presidential campaign; How much attention R paid to news about the senatorial campaign (Meirick & Wackman, 2004)
- "How much attention do you pay to election news about politics" (or "news" when nonelection year) (1 none -5 a great deal) (McDevitt & Kiouisis, 2006)
- "When it comes to reading the newspaper or watching the news on tv, how much attention do you... specifically pay to issues in politics and government?" (a great deal, quite a bit, just some, very little) (NASS, 1998)

#### *“Follow”*

- Frequency of following the news (1 never/almost never -5 always/almost always) (Billig, et al., 2005)
- "Which of the following three statements best describes you: I follow the news closely most of the time, whether or not something important or interesting is happening; I follow the news closely only when something important or interesting is happening; I rarely follow the news closely; don't know." (Andolina, et al., 2002b)
- "Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election or not. Others aren't that interested. Do you follow what's going on in government and public affairs most of the time, some of the time, rarely or never?" (most, some, rarely, never) (Andolina, et al., 2002a)
- "How closely do you follow news that comes from each of the following areas...Politics" (very closely; somewhat closely; not very closely; don't know) (Andolina, et al., 2002b)

### Attention to print media

#### *Past*

- 3 item Newspaper Reading Scale: "Do you usually read the front page news?" "Do you sometimes read opinion columns on the editorial page?" "Do you sometimes read letters to the editor?" (yes/no/NA/DK) (McDevitt & Chaffee, 2000)
- "Please tell me whether you have done this in the last few years. Read a magazine about government, politics or current events nearly every week." (have done this/have not done this) (NASS, 1998)
- "Tell me how often you get information about public affairs, politics, candidates and campaigns from the following sources: newspapers and magazines" (very often; somewhat often; little often; not often at all) (CIRCLE, et al., 2002)
- "How often do you read articles in the newspaper about what is happening in this country" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)
- "How often do you read articles in the newspaper about what is happening in other countries" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)
- "How often do you do each of the following? Read newspapers." (Never; a few times a year; once or twice a month; at least once a week; almost every day) (Johnston, et al., 2004)
- "How often do you do each of the following? Read magazines." (Never; a few times a year; once or twice a month; at least once a week; almost every day) (Johnston, et al., 2004)
- "Now I have some questions about the national news. This means, for example, news about what is happening in Congress, what the President is doing, or what political candidates are saying. How often do you read about the national news in a newspaper or news magazine like *Newsweek*, *Time*, or *U.S. News and World Report*?" (1 hardly ever -4 almost every day) (Niemi, et al., 2000; U.S. Dept. of Education National Center for Education Statistics, 1996)
- "On average, which of the following best describes how often you read a newspaper?" (every day, several times a week, once per week, at least once per month, rarely, never) (NASS, 1998)
- "Over the past seven days, please tell me on how many days you have done each of the following: read magazines like *Newsweek*, *Time* or *U.S. News and World Report*" (# days) (Andolina, et al., 2002a)
- "Over the past seven days, please tell me on how many days you have done each of the following...read a newspaper" (#days) (Andolina, et al., 2002a)

#### *Intent*

- "How likely is it that you would do this in the future. Read a magazine about government, politics or current events nearly every week" (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)

### Attention to broadcast media

#### *Television*

- "Tell me how often you get information about public affairs, politics, candidates and campaigns from the following sources: television news." (very often; somewhat often; a little often; not very often) (CIRCLE, et al., 2002)
- "How often do you listen to news broadcasts on television" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)
- 2-item TV News Viewing Scale: "About how many days a week do you watch a news program, such as the evening news or the late evening

news, on television?" (#s 0-7) "Is news something you try to watch on TV, or do you just see it because someone else has it on?" (try to watch, both, it's just on) (McDevitt & Chaffee, 2000)

- "Over the past seven days, please tell me on how many days you have done each of the following – watch the national news on television" (#days) (Andolina, et al., 2002a)
- "How often do you watch the national news on television or listen to the national news on the radio?" (1 hardly ever -4 almost every day) (Niemi, et al., 2000; U.S. Dept. of Education National Center for Education Statistics, 1996)
- "During the past week, did you watch or listen to the national news with (your parents/other household member identified earlier)?" (yes/no) (Niemi, et al., 2000; U.S. Dept. of Education National Center for Education Statistics, 1996)

*Radio*

- "How often do you listen to news broadcasts on the radio" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)
- "Tell me how often you get information about public affairs, politics, candidates and campaigns from the following sources: talk radio programs" (very often; somewhat often; a little often; not often at all) (CIRCLE, et al., 2002)
- "Over the past seven days, please tell me on how many days you have done each of the following – listen to the news on the radio (# days) (Andolina, et al., 2002a)

**Attention to internet news**

- "Tell me how often you get information about public affairs, politics, candidates and campaigns from the following sources: Internet (very often; somewhat often; a little often; not at all) (CIRCLE, et al., 2002)
- "How much attention did you pay to election news on the Internet" " (or "news" when nonelection year) (1 none - 5 a great deal) (McDevitt & Kiousis, 2006)
- "Over the past seven days, please tell me on how many days you have done each of the following: read news on the internet" (# days) (Andolina, et al., 2002a)

**Political discussion with family**

- "When you were growing up, how often did you talk about politics, government or current events with your parents" (often, sometimes, not very often, never) (CIRCLE & CDC, 2004; CIRCLE, et al., 2002; NASS, 1998)
- "Please tell me whether you have done this in the last few years. Went with your parents to vote in an election." (have done this/have not done this) (NASS, 1998)
- "How often do you have discussions of what is happening in your national politics with parents or other adult family members?" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001); "how often do you have discussions of what is happening in international politics with parents or other adult family members" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)
- "How often do you talk about current events or things you have heard about in the news with members of your family?" (very often; sometimes; rarely; never) (Andolina, et al., 2002b)
- "Thinking about the current school year, how often do you usually talk about politics or national issues with (your parents/other household member identified earlier)?" (1 Hardly ever -4 Almost every day) (Niemi, et al., 2000; U.S. Dept. of Education National Center for Education Statistics, 1996)
- "How often did you talk about the election campaign with your parents?" (1 never-5 frequently) (McDevitt & Kiousis, 2006) (McDevitt, et al., 2003)
- "How often did you talk about the campaign and the election with your [parent]" (1-5) (McDevitt & Chaffee, 2000)
- "I frequently encourage a parent to pay attention to news events" (not at all like me/not sure; somewhat like me; a lot like me) " (McDevitt & Kiousis, 2006)
- "How likely is it that you would do this in the future. Went with your parents to vote in an election." (extremely likely, somewhat likely, not very likely, not at all likely) (NASS, 1998)

**Political discussion with friends**

- "How often did you talk about the election campaign with your friends?" (1 never -5 frequently) (McDevitt, et al., 2003) (McDevitt & Kiousis, 2006)
- "How often do you talk about current events or things you have heard about in the news with your friends?" (very often; sometimes; rarely; never) (Andolina, et al., 2002b)
- "In general, how often do you now talk about politics, government, or current events with your friends?" (often; sometimes; not very often, never) (NASS, 1998)
- "How often do you have discussions of what is happening in your national politics with people of your own age" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001); how often do you have discussions of what is happening in international politics with people of your own age (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)

**General political discussion**

- Frequency of discussing politics with friends, families, or teachers (1 never/almost never – 5 always/almost always) (Billig, et al., 2005)
- "Have you talked with family and friends about a political issue, party or candidate (in the last 12 months)" (yes/no) (Center for the Study of Race Politics and Culture, 2006a)
- Two item scale: Frequency of campaign discussions with friends; Frequency of campaign discussions with family (Meirick & Wackman, 2004)
- "How often do you talk about current events or things you have heard about in the news with your family and friends" (very often; sometimes; rarely; never) (Andolina, et al., 2002a)
- "How often do you have discussions of what is happening in your national politics with teachers" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001); "How often do you have discussions of what is happening in international politics with teachers" (never; rarely; sometimes; often; don't know) (Torney-Purta, et al., 2001)

- “When you do talk about current events and the news, how often does that include items about politics or government” (very often; sometimes; rarely; never) (Andolina, et al., 2002b) (Andolina, et al., 2002a)

**Political conversation**

- “In conversations, how often do you openly disagree with people about politics” (1 never-5 frequently) (McDevitt & Kiouisis, 2006) (McDevitt, et al., 2003)
- “How often do you test out opinions in conversations to see how people might respond” (1 never-5 frequently) (McDevitt & Kiouisis, 2006)
- “How often do you test out opinions in conversations to see if your views are persuasive” (1 never-5 frequently) (McDevitt & Kiouisis, 2006)
- “How often do you listen to people talk about politics when you know that you already disagree with them” (1 never-5 frequently) (McDevitt & Kiouisis, 2006)
- “How important is it to listen to people when you already know that you disagree with them?” (1-5) (McDevitt, et al., 2003)

**Voluntary exposure to political content**

*Past*

- “Please tell me whether you have done this in the past few years. Read a book about politics, government or current events that was not assigned by a teacher.” (have done this/have not done this) (NASS, 1998)
- “Please tell me whether you have done this in the past couple of years or not...Have you chosen to take a class on government, politics, or civic education or not” (yes/no) (CIRCLE, et al., 2002)
- “In the past couple of years, have you chosen to take a class on government, politics, or civic education?” (yes/no) (CIRCLE & CDC, 2004)
- “This year did you attend any speeches, informal seminars, or teach-ins about politics or national issues” (yes/no/don’t know) (Andolina, et al., 2002b)
- Frequency of going to political or civics lectures (1 never/almost never - 5 always/almost always) (Billig, et al., 2005)
- “Have you ever attended a meeting of your town or city council or neighborhood organization” (yes within last 12 months; yes, but not within last 12 months; no haven’t done it) (Andolina, et al., 2002b)

*Intent*

- “How likely is it that you would do this in the future. Read a book about politics, government or current events that was not assigned by a teacher” (extremely likely; somewhat likely; not very likely; not at all likely) (NASS, 1998)
- “Tell me how likely it is that you will perform that action in the next couple of years...Choose to take a class on government, politics, or civic education” (extremely likely; very likely; somewhat likely; a little likely; not at all) (CIRCLE, et al., 2002)