Pilot Testing of Civic Culture Interview

Larry A. Hembroff, Ph.D.
Senior Survey Methodologist
Office for Survey Research

The average interview length was roughly 28.8 minutes with a median of 27.0. The interview instrument contained roughly 135 items. Thus, interviewers were able to ask roughly 4.2 questions per minute. The interview was planned to take an average of 20 minutes, suggesting that approximately 41 questions would need to be deleted to reduce the interview length to the 20 minutes planned and budgeted. However, this is likely to be the outer limit of the cuts that will be necessary for several reasons.

First, most of the interviewers calling on the project were relatively newly hired and trained. Newer interviewers tend to be less proficient than experienced interviewers at controlling the interview and keeping respondents on task – not allowing them to continue giving lengthy sidebar commentaries that add length to the interview but do not answer the questions posed using the response options provided.

Second, since this was a pilot study intended to pretest the questions, interviewers were asked to be particularly diligent in recording all their probes. This more than normal note taking would also lengthen the time required to administer the interview.

The item analysis below should be useful in identifying which questions would benefit from revision and which items do not contribute meaningfully to measurement of the key concepts of concern in this research.

We have conducted a variety of analyses on the responses to the questions included in the Civic Culture Survey. The analyses included:

1. Tabulation of the number of times interviewers had to probe for each question. Probes included having to repeat the question, provide clarification, request respondents choose between two similar responses (e.g., choose between ‘strongly agree’ and ‘somewhat agree’ when respondent replies ‘agree’). Calculation of the percent of respondents asked each question that required a probe. A high percentage would indicate a question that may be too long, too unclear or too complicated.

2. Tabulation of the number of “Don’t Know” responses to each question and calculation of the percentage of responses that resulted in “Don’t Know” – thus suggesting an unclear question or a question not relevant to the respondent. These responses are typically treated as missing data.

3. Items intended to measure issues specific to the Civic Culture Survey can be compared on both #1 and #2 to other more standard items – although the standard items tend to be demographic items.

4. Many clusters of items were included anticipating that each cluster might form a
summated scale measuring some more general concept. We have conducted factor analyses on these clusters to determine whether or not the items do in fact have sufficiently high underlying correlations to represent a single unidimensional factor or rather represent a set of two or more relatively distinct factors. For this, we have used oblique rotation and principal components extraction.

5. We have conducted reliability analyses of the sets of items that factor analyses suggested form scales or factors. In doing so, we have focused on Cronbach’s alpha as the reliability coefficient which should vary from 0 to +1.0, with larger values indicating greater reliability because the inter-item correlations are stronger. A part of the analysis was to determine whether the scale could be improved by omitting any of the items in the set that are less strongly correlated with the others, thereby producing a more efficient scale.

PROBING AND MISSING DATA.

The Question Probe Table that accompanies this document provides a listing of the questions in the order they occurred in the interview and the information referred to in #1 and #2 above. We have highlighted in yellow, those questions for which interviewers had to probe for more than 15% of the respondents AND for which 5% or more of the final answers were “Don’t Know.” At the bottom of the table, we have indicated that the average item was probed 12.8% of the time and resulted in a “don’t know” response only 2.5% of the time. The table also indicates that the ‘standard’ items required probing only 3.8% of the time and produced a “don’t know” response less than 1% of the time. Thus, the yellow highlighted items were probed or resulted in “don’t know” responses at more than 4 times the rate of the standard items and result in twice the overall average number of “don’t know” responses.

We have highlighted in green the items for which interviewers had to probe more than 15% of the time even though fewer than 5% of respondents gave a “don’t know” response.

The table indicates there are 14 of the 117 items that met the criteria to be highlighted in yellow and 25 other items that met the criteria to be highlighted in green. A substantial number of these (7 of the 25) were in one particular section of items (i.e., attachment1 through attachment17).

FACTOR ANALYSIS AND RELIABILITY ANALYSIS

Current Situation in the Community.
The interview included four items that focused on the respondents’ assessments of the current situation in the community (Comiss17, Comiss1, Comiss2, Comiss6). The factor analysis extracted a single factor (i.e., the composite scale is unidimensional) with the factor loadings varying from 0.605 to 0.763. The reliability analysis for this four-item index resulted in a Cronbach’s alpha of 0.609 and indicated that the scale would not be improved by eliminating any of the items.

Importance of Public Services.
The interview included seven items that asked respondents their opinions as to how important various publicly funded services are to the respondents and their families (Comiss7, Comiss10,
Comiss11, Comiss12, Comiss13, Comiss14, and Comiss15). The factor analysis extracted two factors among these items. One factor is comprised of Comiss10, Comiss12 and Comiss13 that focus on what might be regarded as ‘essential’ services, i.e., promoting business and job growth, public schools, and police, fire and other public safety services. Factor loadings for this cluster varied from 0.574 to 0.724. The second factor was comprised of Comiss7, Comiss11, Comiss14, and Comiss15 and seemed to focus on the importance of other community enhancement services, e.g., public transportation, libraries, parks, pools and playgrounds, and art and culture programs. The factor loadings for this set varied from 0.602 to 0.720.

The reliability analysis for the whole set of seven items resulted in a Cronbach’s alpha of 0.602; however, the analysis indicated the coefficient would be greater if several items were deleted. We separated the items as indicated by the factor analysis. The reliability coefficient for the ‘essential’ services set of items was 0.445 and would be nominally improved to 0.469 by leaving out Comiss13. As a scale item, the problem with Comiss13 is that there is very little variance on the item, i.e., 93% of respondents said police, fire and safety services are ‘very important.’ As a result the item does not help differentiate among respondents.

The reliability coefficient for the second factor was 0.557 and the analysis indicated that it could be improved to 0.654 by leaving out item Comiss7 on public transportation. While there is variance on this item, it is only very weakly correlated with any of the other seven items. Whereas a majority of respondents said each of the other seven services were ‘very important’ and less than 13% regarded any of them as either ‘not very important’ or ‘not important at all,’ fully 63.8% of respondents said public transportation was ‘not very important’ or was ‘not important at all’ to them and their families.

If both Comiss7 and Comiss13 were left out, the resulting five-item scale would have a reliability coefficient of 0.654 and would not be improved further by eliminating any other item. Whether the responses to Comiss13 and Comiss7 are unique to the three pilot communities is unknown.

**Efficacy.**

The interview included four items that focused on respondents’ interest in community political issues and sense of potential effectiveness in engaging in the issues (Efficacy0, Efficacy1, Efficacy2, and Efficacy3). Because of the wording and response options provided, the coding of Efficacy2 had to be reversed to be consistent with the code scoring of the other three items.

The factor analysis identified two factors among these four items. One was comprised of Efficacy0 and Efficacy1 and seemed to be directly related to the respondent’s interest and perceived ability to have an impact. The factor loadings were 0.833 and 0.779.

The second factor comprised of Efficacy2 and Efficacy3 seems to focus on respondents’ perception of personal competence and others’ willingness to listen to the respondents. The factor loadings were 0.743 and 0.822. Cronbach’s alpha for the first two-item set was 0.495 while the alpha for the second set was 0.380. The combined four-item set has an alpha of 0.468 and would not be improved by dropping any one of the items.
**Civic Participation.**
The questionnaire included five items focused on respondents’ participation in a variety of types of civic organizations over the previous twelve months (i.e., CivPart1, CivPart4, CivPart5, CivPart6, and CivPart7). Factor analysis indicated that these formed a single factor with loadings varying from 0.590 to 0.688. The reliability analysis resulted in a Cronbach’s alpha of 0.625. The analysis indicated it could not be improved by eliminating any of the five items.

**Political/Policy Influence.**
The questionnaire included 15 items designed to measure respondents’ perceptions as to whether citizens or business interests are more influential in local government decision-making. These are Influence1a, Influence1b, Influence1c, Influence1a, Influence1b, Influence1c, Influence1a, Influence1b, Influence1c, Influence7, Influence8@a and Influence8@b.

Influence@a asked respondents whether or not they believed there is a group or organization that has greater influence on government decision than either business interests or citizens. Influence8@b asked respondents who said there were such groups to identify them. These two items do not fit the question structure needed to form a scale with the other items in this set.

The items with the ‘b’ and ‘c’ at the end of their names were follow up questions to those that have an ‘a’ at the end of the name. We have new Influence1, Influence2, Influence3 and Influence 4 items combining the responses to the a, b, and c versions of each so that the responses range from 1 for ‘business groups have much more influence’ to 5 for ‘citizens have much more interest.’ This reduces the number of items for analysis to five (influence1, influence2, influence3, influence4 and influence7).

Factor analysis extracted two factors. The first was comprised of Influence3 and Influence4. The factor loadings were 0.717 and 0.851. This factor focuses on influence over essential public services such as public education, police, fire and other safety services.

The second factor was comprised of Influence1, Influence2, and Influence7 with factor loadings varying from 0.671 to 0.861. This factor seems to focus on influence over other non-essential services and issues.

Reliability analysis indicated the overall alpha for the five items was 0.588 but that it could be improved by dropping Influence4. Therefore, consistent with the factor analysis, we have conducted separate reliability analyses for the scales formed by the two factors comprising the five-item set. The reliability coefficient for the two items focused on essential services decision-making was 0.422 and the reliability coefficient for the three items focused on other decision-making was 0.635.

The weakness in the two-item factor owes much to the fact that more than half the respondents (57.1%) indicated believing that business and citizens have about the same amount of influence regarding public safety policy (Influence4) whereas 64.0% indicated believing that citizens have more influence than businesses on public school policy (Influence3).
**Conflict.**
There were six items in the interview that focused on the respondents’ views regarding political conflict, consensus and majority rule, i.e., items Conflict1 to Conflict6. These were all Likert formatted items in which respondents were asked to indicate how strongly they agreed or disagreed with each of seven statements.

Factor analysis extracted three separate factors from among the six items. One factor was comprised of Conflict1 and Conflict3 with factor loadings of 0.665 and 0.637. The second factor was comprised of Conflict2 and Conflict6 with loadings of 0.599 and 0.886. The third factor was comprised of Conflict4 and Conflict5 with factor loadings of 0.826 and 0.862.

Cronbach’s alpha for the whole six-item set was 0.447. The analysis did not indicate it would be improved by dropping any of the items although it indicated that the alpha would remain a 0.447 if item Conflict6 were dropped. However, the reliability coefficient for the subscale formed by Conflict4 and Conflict5 was 0.586 – an improvement – while the alpha for the subscale formed by Conflict1 and Conflict3 was 0.379 and for the subscale formed by Conflict2 and Conflict6 was 0.261.

The strongest of these three subscales is clearly different from the other two in that it focuses on what the respondents believe as to whether or not there is currently conflict within local government. The items in the other subscales focus on the respondents’ preferences regarding consensus or compromise and the inevitability of conflict.

**Locus of Decision-Making.**
The interview included four items to address where respondents believe decision-making should reside (Locus1, Locus2, Locus3, Locus5). These four items were also Likert format items presenting statements to which respondents were to indicate strength of agreement or disagreement. In a sense, all of the items concern the choice between having decision-making authority closer to the individual respondent or further away (i.e., city professionals vs. general public, the mayor/city manager vs. city council/city commission, government vs. citizens, community government vs. regional government). To be scored consistently to reflect this, the code values for Locus3 had to be reversed.

Factor analysis indicated there were two factors or subscales. One was comprised of Locus1 and Locus2 with factor loadings of 0.714 and 0.782. The other was comprised of Locus3 and Locus5 with factor loadings of 0.680 and 0.744.

The reliability coefficient for all four items together was 0.318 with an indication that it would be greater if items Locus3 and Locus5 were separated out. The reliability coefficient for the two-item subscale comprised of Locus1 and Locus2 was 0.444, but the Locus3 and Locus5 were negatively correlated with each other. As a result, the reliability coefficient for the two-item subscale comprised of Locus3 and Locus5 was -.254. Locus3 is the problematic item positively correlated with some of the other items and negatively correlated with the other. This suggests that Locus3 should be dropped. When the factor analysis is re-run excluding Locus3, it identifies only a single factor with loadings varying from 0.528 to 0.790. The alpha for this three-item scale is 0.381.
Trust.
The questionnaire included five items designed to measure respondents’ trust in various community members or officials, e.g., neighbors, people of other races or religions, police, elected officials. These are items Trust1, Trust5, Trust6, Trust8, and Trust9. Factor analysis extracted two factors from among the five items. One factor was comprised of the first three items and the other comprised of the last two items. Factor loading on the former varied from 0.720 to 0.895 and varied on the latter from 0.780 to 0.892.

The reliability analysis for the five items together resulted in an alpha of 0.746, reasonably good, but also indicated dropping item Trust9 would improve the alpha to 0.755. We executed the reliability analysis on the three-item and two-item subscales indicated by factor analysis. The alpha coefficient for the three-item subscale (Trust1, Trust5, Trust6) was a relatively robust 0.789 with an indication it could be improved slightly to 0.794 by dropping Trust1. The alpha coefficient for the two-item subscale (Trust8, Trust9) was 0.621.

Tolerance.
The questionnaire included four clusters of items focused on the respondents’ tolerance of individuals different from themselves.

1. Four items (PTolerance1 through PTolerance4) focused on the respondents’ tolerance for free speech and people of differing political views. These were Likert formatted items to which respondents were to indicate the strength of their agreement or disagreement. In each case, disagreement with the item indicated a pro-free speech and tolerance for diversity of opinion attitude. The factor analysis extracted two subscales from these four items. One was comprised of PTolerance1 and PTolerance2 with factor loadings of 0.726 and 0.869. The second subscale was comprised of PTolerance3 and PTolerance4 with factor loadings of 0.706 and 0.903. The reliability coefficient for the first subscale was 0.517 and the reliability coefficient for the second was 0.545. Cronbach’s alpha for the entire four-item set was 0.572 with an indication that it would not be improved by excluding any item.

2. The second cluster of tolerance items included six items (Tolerance1a to Tolerance1f). These asked respondents to assess how many of the individuals in the community with whom they interact differ from themselves with respect to race, religious views, political views, education level, sexual orientation, or are recent immigrants. Factor analysis extracted two subscales from these six items. One subscale was comprised of four items (Tolerance1a, b, c and f) with factor loadings varying from 0.566 to 0.828. The reliability analysis resulted in an alpha of 0.681 but the analysis indicated that alpha would be improved to 0.706 by dropping Tolerance1e (re: numbers of recent immigrants). The second subscale was comprised of two items (Tolerance1d and Tolerance1f). The factor loadings were 0.600 and -0.772. The reliability coefficient for this two-item subscale was 0.226 suggesting that only the other subscale be used.

3. The third cluster of tolerance items asked respondents how many of their friends differed from themselves across the same six types of characteristics, i.e., race, religious views, etc. (Tolerance2a to Tolerance2f). Again, factor analysis extracted two subscales. One was comprised of Tolerance2a, b, c, e and f (factor loadings 0.511 to 0.691) and item Tolerance2d (education level) was the only item that loaded strongly on the second factor (factor loading was
Cronbach’s alpha for the five item set was 0.624 with an indication that it would not be improved by dropping any of the items. Reliability cannot be calculated for a single item so no reliability coefficient can be ascertained for Tolerance2d. The alpha coefficient for the entire set of six items if Tolerance2d were to be included is 0.533.

4. The final set of tolerance items began with Tolerance3 in which respondents were asked to identify a group of people that they particularly dislike. Those who named such a group were then asked three follow-up questions, Tolerance4a to Tolerance4c. Respondents were then asked to indicate the strength of their agreement or disagreement with statements about members of this disliked group being allowed to run for public office, to hold public rallies and demonstrations, or to live in the respondents’ neighborhoods. The factor analysis of these three items showed them to be a unidimensional scale with factor loadings varying from 0.792 to 0.893. The reliability analysis for this three-item scale produces an alpha coefficient of 0.796. The analysis indicated that the scale could be marginally improved to 0.799 by dropping item Tolerance4c (allowing the group to live in the respondents’ neighborhoods).

Political Participation.
The questionnaire included 13 items focused on respondents’ actual participation in or attitudes about participation in political activities.

1. Eight items (Civics5, Civics6, Civics7, Civics8, Civics10, Civics11, Civics12, and Civics13) asked respondents to report how many times in the previous twelve months they had signed a petition, attended a political meeting, worked on a community project, participated in a protest, contacted a public official, attended a city council meeting, donated to a local election campaign, or attended a neighborhood meeting. Factor analysis extracted two factors. One comprised of Civics5, 6, 8, 10 and 12 with factor loadings varying from 0.558 to 0.816. The second factor was comprised of Civics7, 11 and 13 with factor loadings from 0.533 to 0.828. Cronbach’s alpha for the five-items subscale was 0.729 with an indication that dropping any of the items would lower the alpha value.

The reliability analysis for the second subscale resulted in an alpha of 0.512. Again, dropping any of the items would reduce the reliability. The combined eight items produced a reliability coefficient of 0.734 and the analysis indicated that the coefficient would decrease if any one of the items were dropped.

2. The second set of five participation items focused on respondents’ attitudes toward political participation in the community (Civics14, 15, 16, 17 and 18). Respondents were asked to indicate how strongly they agreed or disagreed that directly contacting elected officials, voting, lobbying, demonstrating, and serving on organization boards are good ways to make one’s self heard by community decision makers. Factor analysis extracted two factors. The first was comprised of Civics14 and Civics15 with factor loadings of 0.663 and 0.917. The second subscale was comprised of Civics16, Civics17 and Civics18 with factor loadings of 0.709 to 0.769.

The Cronbach’s alpha for the first two-item subscale was 0.542 and the alpha for the second three-item subscale was 0.629. For the combined five items, the alpha coefficient was 0.607, but
the analysis indicated the coefficient would improve to 0.639 of Civics15 (voting) were dropped from the scale.

**Volunteer Activity.**
Interviewers asked respondents three questions designed to measure the respondents’ commitment to the community via participation in volunteer activities (Volun1, Volun2, Volun3). Respondents were asked to indicate how often they worked with other people in their neighborhood to fix or improve something, attended public meetings on city affairs or education issues, or did volunteer work. Factor analysis indicated that the three items represented a unidimensional scale with factor loadings from 0.688 to 0.796. Reliability analysis resulted in a Cronbach’s alpha of 0.618.

**Taxes and Government Spending.**
The questionnaire included 11 items to measure respondents’ attitudes toward the taxes they pay and whether or not they think government is spending enough for particular services.

1. The first four items (ComIss29, ComIss31, ComIss33, ComIss34) ask respondents to indicate how strongly they agree or disagree that they are getting their monies worth from taxes paid, that they are not getting their monies worth because of political corruption or because some other neighborhoods get more than their share, or because of poor city administration. We have reversed the code values of the responses to the first item so scoring is consistent across the four items.

   Factor analysis indicated the four-item scale is unidimensional with factor loadings from 0.543 to 0.867. The reliability analysis resulted in a reliability coefficient of 0.698. The analysis indicated that dropping the first item (ComIss29) would improve the reliability coefficient to 0.734.

2. The next seven items asked respondents whether their city should spend more, less, or about the same amount as it does currently for various services, e.g., public education, parks and recreation, infrastructure, trash and recycling, police and fire protection, the downtown area, and incentives to attract business (ComIss35, ComIss36, ComIss37, ComIss38, ComIss41, ComIss42 and ComIss44). Factor analysis extracted two factors. The first was comprised of the first five items, i.e., ComIss35 through ComIss41, with factor loadings varying from 0.576 to 0.650. These all tend to concern specific current services citizens and businesses use. The second factor was comprised of ComIss42 and ComIss44 which focus on investments (the downtown area and incentives to attract new businesses). The factor loadings on the second factor were 0.736 and 0.817.

   Reliability analysis of the first subscale resulted in a Cronbach’s alpha of 0.547 that would not be improved by dropping any of the five items. The Cronbach’s alpha for the second subscale was 0.387. The Reliability coefficient for the combined seven-item scale was 0.530 and would not be improved by dropping any one of the items.

**Attachment to Place.**
Another section of the questionnaire contained a series of 10 items designed to measure the respondents’ attachment to their current place of residence.
1. Several questions assessed the respondents’ intent to move from their current city of residence in the next five years and, if so, to what other location (Attachment1, Attachment2, Attachment3, Attachment4). Attachment3 through Attachment4 were only asked if the respondent indicated an intent to move in response to Attachment1. Attachment2 asked the respondent the reason for moving, while Attachment3 and Attachment4 asked the respondents’ likelihoods to move to another suburb nearby or out of state.

Attachment2 is not an immediately scalable item (although it may be if the various motivations to move are sorted out and coded into those that represent being forced to move (e.g., can’t find a job locally) vs. choosing to leave for nicer neighborhood, weather, to be near friends or family, etc. But presently it is not scalable. Factor analysis indicates that Attachment1, Attachment3 and Attachment4 form a unidimensional scale, although the factor loading of Attachment1 is low. It seems likely that the three or four items could be used to form a type of Guttman Scale-type of item of the following sort: No Plans to Move – Plans to Move but Forced – Plans to Move by Choice Nearby – Plans to Move by Choice Far Away. Reliability analysis of the two items, Attachment3 and Attachment4, resulted in an alpha of 0.727, while the alpha for these two items plus Attachment1 was 0.493.

2. A second set of questions asked respondents to indicate how strongly attached they feel to their neighborhoods, public schools, city, church, region of the state, and state (Attachment9, Attachment12, Attachment11, Attachment13, Attachment16, and Attachment17). Factor analysis indicated that these six items formed a single unidimensional scale with factor loadings varying from 0.486 to 0.779.

The Cronbach’s alpha for the six item scale was 0.732 but the analysis indicated that the reliability could be improved marginally to 0.744 by dropping Attachment13 (attachment to church, synagogue, mosque, or other place of worship). This appears to be a consequence of more than 40% of the respondents in these communities feeling no attachment to a place of worship. This might be different in other communities, so perhaps the item Attachment13 would contribute to the scaling in that case.