



# Methods Supplement for *Envisioning Equity*:

How a New Story of Assessment  
Can Help Transform Education

JUNE 2025

This supplement provides detailed information on the research that informs the first release of FrameWorks' research project on educational equity and assessment in the United States. Below, we outline the research conducted with researchers, advocates, and practitioners and with members of the public that provides the evidence base for the brief, describing the methods used and sample composition.

# The Core Ideas of Educational Equity and Assessment

To develop an effective strategy for communicating about an issue, it's necessary to identify a set of core ideas to get across. For this project, these ideas were garnered from researchers and advocates working on educational assessment and equity issues, including academics, policy experts, and advocates.

## **1. Interviews with leaders in the field and literature review**

FrameWorks researchers conducted 15 structured interviews with a diverse set of leaders in the field, each lasting between one hour and 90 minutes, via Zoom, along with a review of the relevant literature on the issue. Interviews were conducted between November 2022 and January 2023, and, with participants' permission, were recorded and transcribed for analysis. To refine these core ideas for the different strands of work, FrameWorks conducted an hourlong roundtable with the advisory council in May 2023. Additionally, FrameWorks had informal conversations over the course of months with a range of leaders in the field to help give direction to this discovery phase of research.

Interviews with researchers and advocates consisted of a series of probing questions designed to capture their understanding about current challenges in education, the nature and source of disparities, and visions for a better educational system. Interviews were semi-structured in the sense that, in addition to pre-set questions, FrameWorks researchers repeatedly asked for elaboration and clarification and encouraged members of the sector to expand on concepts they identified as particularly important. Analysis employed a basic grounded theory approach.<sup>1</sup> A FrameWorks researcher identified and inductively categorized common themes that emerged in each interview and across the sample. This procedure resulted in a refined set of themes, which researchers supplemented with a review of materials from relevant literature. This literature review covered academic and gray sources, particularly focused on the types of structural changes that are needed with regard to assessment and equity in education in the United States, with a secondary focus on gathering existing research on mindsets and public perceptions.

## **Public Understandings of Education, Educational Equity, and Assessment in the United States**

To identify the cultural mindsets that the public uses to think about education, educational equity, and assessment, we conducted both qualitative and quantitative research methods. First, we ran a series of in-depth interviews, and then a large, nationally representative survey. We describe each of these methods below.

## 1. Cultural Mindsets Interviews

FrameWorks researchers conducted 20 one-on-one, two-hour-long, in-depth, semi-structured cultural mindsets interviews during June and July 2023 with people across the United States, 10 of which were with current classroom teachers. Interviews were conducted over Zoom and were recorded with participants' written consent. Additionally, researchers reanalyzed 10 cultural mindsets interviews that were conducted with a focus on assessment in 2012 for FrameWorks Institute's Core Story of Education report. These 30 interviews were then analyzed to identify the cultural mindsets used to think about educational equity and assessment in the United States.

All participants were recruited by a professional marketing firm and selected to represent variation along several dimensions: race and ethnicity, residential location, age, gender, educational background, income, political views (as self-reported during the screening process), and family situation (e.g., married or single, with or without children) (see Table 1 below for full demographic information). To ensure that the research findings would enable us to attend to differences in thinking based on the racial identity of the participant, we slightly oversampled Hispanic and Black participants. Across all 20 interviews conducted in 2023, we had five (5) Black participants, six (6) Hispanic/Latine participants, six (6) white participants, and three (3) participants who identified as Native American/Asian/Other. (See Table 2 below for breakdown of demographic information across groups of interviews.)

As supplemental data for this current research, the additional interviews from the Education Core Story research in 2012 were conducted in person in Boston, Massachusetts, and in various cities in the states of Georgia, New Hampshire, and Oregon. The sample of 10 interviews from 2012 to analyze for this current project was selected to distribute geography and gender as evenly as possible: six (6) female participants, four (4) male; two (2) in Boston, two (2) in New Hampshire, three (3) in Georgia, and three (3) in Oregon. Other demographic categories were not recorded for those interviews.

Cultural mindsets interviews are one-on-one, semi-structured interviews lasting approximately two hours. They are designed to allow researchers to capture broad sets of assumptions, or cultural mindsets, that participants use to make sense of a concept or topic area—in this case, issues related to learning, education, schools, equity, and assessment. Interviews consisted of a series of open-ended questions covering participants' thinking on those topics in broad terms. Researchers approached each interview with a common set of topics to explore but allowed participants to determine the direction and nature of the discussion.

To analyze the interviews, researchers used analytical techniques from cognitive and linguistic anthropology to examine how participants understood issues related to learning, education, equity, and assessment.<sup>2</sup> First, researchers identified common ways of talking across the sample to reveal assumptions, relationships, logical steps, and connections that were commonly made but taken for granted throughout an individual's dialogue. The analysis involved discerning patterns in both what participants said (i.e., how they related, explained, and understood things) and what they did not say (i.e., assumptions and implied relationships). In many cases, participants

revealed conflicting mindsets on the same issue. In such cases, one conflicting way of understanding was typically found to be dominant over the other in that it more consistently and deeply shaped participants' thinking (i.e., participants drew on this mindset with greater frequency and relied more heavily on it in arriving at conclusions). To ensure consistency, researchers met after an initial round of coding and analysis, comparing and processing initial findings, then revisited transcripts to explore differences and questions that arose through the comparison. As part of this process, researchers compared emerging findings to the findings from previous cultural mindsets research as a check to ensure that they had not missed or misunderstood any important mindsets. They then reconvened and arrived at a synthesized set of findings.

Analysis centered on ways of understanding that were shared across participants, as cultural mindsets research is designed to identify common ways of thinking that can be identified across a sample. While there was no fixed rule or percentage used to identify what counts as “shared,” mindsets reported were typically found in a large majority of interviews. Mindsets found in a smaller percentage of interviews were only reported if there was a clear reason why they only appeared in a limited set of interviews (e.g., the mindset reflected the thinking of a particular subgroup of people).

As we describe below, we primarily relied on large-sample surveys to explore variations between groups, rather than looking at variation within our interview sample, as generalizations based on small numbers of participants would be inappropriate. However, in analyzing cultural mindsets interviews, researchers noted whether specific mindsets appeared more frequently in some racial/ethnic groups and used the qualitative data to generate possible interpretations of such differences. Where differences in mindset salience were borne out by the surveys, researchers returned to these interpretations from the cultural mindsets interviews to help make sense of these results.

**Table 1: Cultural mindsets interviews—demographic information across non-teacher interviews (2023)**

Demographic Variable	Number of non-teacher participants
<b><i>Race/ethnicity</i></b>	
Black or African American	2
Hispanic or Latino/a	3
White	3
Native American/Asian/Other	2
<b><i>Political party</i></b>	
Democrat/Lean Democratic	6
Republican/Lean Republican	4
Other/independent/do not lean	0

<b><i>Residential location</i></b>	
Rural	3
Suburban	4
Urban	3
<b><i>Gender</i></b>	
Male	4
Female	6
Nonbinary/other	0
<b><i>Age</i></b>	
18–29	2
30–44	5
45–59	2
60+	1
<b><i>Educational attainment</i></b>	
High school or less	2
Some college	3
College degree	2
Post-college	3
<b><i>Income</i></b>	
\$0–39,999	6
\$40,000–69,999	2
\$70,000–99,999	2
\$100,000–\$149,999	1
\$150,000+	1
<b><i>Parental status</i></b>	
Has children	4
No children	6

<b><i>Marital Status</i></b>	
Single	4
Married	6

**Table 2: Cultural mindsets interviews—demographic information across teacher interviews (2023)**

Demographic Variable	Number of teacher participants
<b><i>Race/ethnicity</i></b>	
Black or African American	3
Hispanic or Latino/a	3
White	3
Native American/Asian/Other	1
<b><i>Political party</i></b>	
Democrat/Lean Democratic	6
Republican/Lean Republican	4
Other/independent/do not lean	0
<b><i>Residential location</i></b>	
Rural	2
Suburban	5
Urban	3
<b><i>Gender</i></b>	
Male	3
Female	7
Nonbinary/other	0
<b><i>Age</i></b>	
18–29	1
30–49	8
50+	1

<b><i>Educational attainment</i></b>	
Less than BA or equivalent	0
Bachelor's degree or equivalent	4
Master's degree or higher or equivalent	6
<b><i>Income</i></b>	
\$0–47,999	2
\$48,000–69,999	4
\$70,000+	4
<b><i>Parental status</i></b>	
Has children	6
No children	4
<b><i>Marital Status</i></b>	
Single	3
Married	7

## 2. Field Frame Analysis:

FrameWorks conducted a narrative scan and analysis of public-facing communications materials—webpages, reports, press releases, position statements, and blog posts—from 15 organizations in the education field that are communicating about educational equity and assessment. These organizations represented a range of areas within the education field, including nonprofit education organizations, policy advocacy groups, educational assessment nonprofits, civil rights organizations, teachers' unions, nonprofit research organizations, philanthropic foundations, and testing companies. The list of organizations chosen for the samples was created with input from the advisory council. The following 15 organizations' materials were included in the analysis:

- AFT (American Federation of Teachers)
- Assessment for Learning Project
- Chan Zuckerberg Initiative
- CASEL (Collaborative on Academic and Social Emotional Learning)
- Carnegie Foundation
- Center for Assessment
- Center for Measurement Justice
- Data Quality Campaign
- Ed Trust
- ETS (Education Testing Services)
- Gates Foundation
- Learning Policy Institute
- National Urban League
- NWEA (Northwest Evaluation Association)
- UNIDOS

The process of analyzing how the field is currently communicating included qualitative analysis to identify themes, trends, and patterns of meaning in the data and interpretation of those findings against the backdrop of the public's mindsets about education, learning, equity, and assessment and the core ideas that the field wants to communicate to the public. The analysis of field communications focused on how current practices in communicating about assessment specifically are shaped by and interact with these broader educational and equity-related mindsets, as well as mindsets related specifically to assessment.

### 3. Cultural Mindsets Surveys

One online survey was administered to gather data from a total sample of 2,083 participants aged 18 and over and from the United States. The survey began with participant consent and a series of standard demographic questions, followed by batteries designed to measure target attitudes and cultural mindsets. The survey measured attitudes such as government responsibility to improve student learning and attitudes toward equity in assessment. The survey also measured cultural mindsets such as *Learning Is Additive*, *Assessment Is Evidence*, *Cultural Essentialism*, and *High Stakes of Assessment*.

Each battery consisted of multiple questions, primarily using Likert-type items with four, five-, and seven-point response scales. The survey also included several forced-choice items wherein participants were presented with statements representing two viewpoints and asked to rate which viewpoint they agreed with more. All batteries within each section were randomized.

Target quotas were set according to national benchmarks for age, gender, household income, education level, race/ethnicity, and political party affiliation. In addition, Asian American groups were oversampled above national benchmarks to support subgroup analyses, with a minimum target of  $n = 200$ .

All analyses regarding race/ethnicity were conducted using the nationally representative sample and the oversample to ensure adequate power for stratified analyses. Analyses regarding all other demographic variables were conducted using only the nationally representative sample. Data was collected in March of 2024 by Dynata, who also hosted the survey. See below for more information about the sample composition.



Prior to conducting any analyses, we performed a series of factor analyses to assess the psychometric properties of our scales. For scales that had not been previously tested, we conducted exploratory factor analyses (EFA) to establish their psychometric robustness. Items with rotated factor loadings below  $|0.50|$  were dropped from each battery. For scales that had been previously tested, we conducted a series of confirmatory factor analyses (CFA) to test the expected dimensionality of our outcome scales. Survey items were specified to load onto their intended factors, with correlations among factors estimated freely using the marker method approach. We used Maximum Likelihood Estimation with Robust Standard Errors (MLR) to account for potential deviations from normality and model misspecifications. For model fit evaluation, we adopted an inclusive approach that considered multiple fit indices. Recognizing that chi-square is overly sensitive to sample size and minor model misspecifications, we used three approximate fit indices: the Root Mean Square Error of Approximation (RMSEA<sup>3</sup>), with thresholds of  $< 0.050$  for close fit and  $< .080$  for reasonable fit; the Comparative Fit Index (CFI<sup>4</sup>); and the Tucker-Lewis Index (TLI<sup>4</sup>), with thresholds of  $> .900$  for acceptable fit and  $> .950$  for excellent fit.

Once finalized, Cronbach's alpha ( $\alpha$ ) was used to assess internal consistency among the items in each battery. Given that there are various heuristics for determining acceptable internal consistency, we determined that batteries with internal consistency scores approaching 0.60 or above would be considered acceptable.

After assessing internal consistency, items within each battery were combined into composite scores that indicated participants' average ratings of the target attitudes or cultural mindsets measured by each battery. For ease of interpretation, each composite was transformed to a 100-point scale, with 50 representing the midpoint. Internal consistency scores for each battery can be found in Appendix A.

We ran correlations to determine the relationships between (1) attitudes and (2) cultural mindsets. A threshold of  $p < .05$  was used to determine whether two variables were significantly correlated. A correlation coefficient within the range of 0.1–0.3 was considered as a small association; a correlation coefficient within the range of 0.30–0.50 was considered a medium association; and a correlation of 0.50 or higher was considered a large association.<sup>5</sup>

We used analysis of variance to determine whether participants from various demographic backgrounds differed significantly on their endorsement of cultural mindsets and attitudes. Further, we used Bonferroni corrected pairwise comparisons to identify where significant differences between demographic groups occurred. An effect size within the range of 0.20–0.49 was considered as a small association; an effect size within the range of 0.50–0.79 was considered a medium association; an effect of 0.80 or higher was considered a large association; and an effect of 1.00 or higher was considered a very large effect.<sup>6</sup>

As with all research, it is important to remember that results are based on a sample of the population, not the entire population. As such, all results are subject to margins of error.

**Table 3: Survey Demographic Information<sup>7</sup>**

Demographic Variable	Main sample n	Main sample %	Oversample n	Oversample %	Total N	Total %
<b>Age</b>						
18–29	177	9%	1	<1%	178	9%
25–34	380	19%	8	11%	388	19%
30–44	341	17%	10	14%	351	17%
45–59	501	25%	20	27%	521	25%
60+	610	30%	35	47%	645	31%
<b>Sex</b>						
Male	996	50%	37	50%	1033	50%
Female	1011	50%	37	50%	1048	50%
Nonbinary/other	2	<1%	0	0%	2	<1%
<b>Gender</b>						
Man	986	49%	38	51%	1024	49%
Woman	1010	50%	36	49%	1046	50%
Trans Man	7	<1%	0	0%	7	<1%
Trans Woman	2	<1%	0	0%	2	<1%
Genderqueer	3	<1%	0	0%	3	<1%
Other	1	<1%	0	0%	1	<1%
<b>Region</b>						
Northeast	422	21%	10	14%	432	21%
Midwest	407	20%	9	12%	416	20%
South	741	37%	20	27%	761	37%
West	439	22%	35	47%	474	23%
<b>Ethnicity</b>						
Caucasian/White (non-Hispanic/Latino)	1176	59%	0	0%	1176	56%
Hispanic or Latino	333	17%	0	0%	333	16%
Black/African American	284	14%	0	0%	284	14%
Asian	126	6%	74	100%	200	10%

American Indian/ Alaska Native	27	<1%	0	0%	27	<1%
Hawaiian/Pacific Islander	5	<1%	0	0%	5	<1%
Other/Bi-racial or multi-racial	58	3%	0	0%	58	3%

### ***Income (USD)***

0–24,999	374	19%	8	11%	382	18%
25,000–49,999	409	20%	16	22%	425	20%
50,000–99,999	638	32%	27	36%	665	32%
100,000–149,999	334	17%	13	18%	347	17%
150,000+	254	13%	10	14%	264	13%

### ***Education***

High school diploma or less	615	31%	6	8%	621	30%
Some college or Associate's degree	576	29%	18	24%	594	29%
Bachelor's degree	508	25%	28	38%	536	26%
Graduate/Professional degree	310	15%	22	30%	332	16%

### ***Political Party***

Closer to Republican Party	768	38%	24	32%	792	49%
Close to Democratic Party	994	49%	25	34%	1,019	38%
Neither	247	12%	25	34%	272	13%

### ***Marital Status***

Single	739	37%	21	28%	760	36%
Married	952	47%	44	59%	996	48%
Married but separated	27	<1%	0	0%	27	<1%
Divorced	207	10%	8	11%	215	10%
Other	84	4%	1	<1%	85	4%

***Parental Status***

Parent	521	26%	8	11%	529	25%
Non-parent	1488	47%	66	89%	1554	75%

***Job Working in K-12***

Yes	98	5%	1	1%	99	5%
No	1911	95%	73	99%	1984	95%

# Appendix A: Survey Items

## I. Attitudes

Attitudes were primarily measured using batteries of items designed to capture the core assumptions or ideas. Most attitudes were measured on a 7-pt scale, from *very strongly disagree* to *very strongly agree*. One attitude was measured using a 4-pt scale, from *not at all a form of assessment* to *completely a form of assessment*. Additionally, two attitudes were measured using forced-choice items wherein participants were presented with statements representing two viewpoints and asked to rate which viewpoint they agreed with more.

### Dimensions of Assessment

Please rate the extent to which you believe each listed item represents a form of assessment in education [4-point Likert Scale 1 = *not at all a form of assessment*, 2 = *somewhat a form of assessment*, 3 = *mostly a form of assessment*, 4 = *completely a form of assessment*]:

- A. Tests
- B. Standardized tests
- C. End-of-unit exams
- D. Disciplinary action
- E. Grades
- F. Extracurricular act

### Public Education System's Responsibility to Improve Student Learning $\alpha = .68$

- 1. Our public education system is to blame if student learning continues to decline.
- 2. Our public education system has an obligation to improve student learning.
- 3. It is our public education system's responsibility to improve student learning.

### Government Responsibility to Improve Student Learning $\alpha = .80$

- 1. Our government is to blame if student learning continues to decline.
- 2. Our government has an obligation to improve student learning.
- 3. It is our government's responsibility to improve student learning.

### General Attitudes Toward Equity in Assessment $\alpha = .78$

- 1. Students' individual learning needs should be considered when designing educational assessments.
- 2. Learning assessments should be designed to meet the unique learning needs of each student.
- 3. Effective learning assessments are customized to meet the needs of each student.

### **Attitudes Toward the Field's Vision of Equitable Assessment $\alpha = .68$**

1. Student learning should be monitored throughout the school year, not just at the end.
2. In addition to academic development, assessments should evaluate students' social and emotional learning.
3. Effective assessments allow students and teachers to work together on identifying where additional learning is needed.

### **Assessment as a Solution**

Which perspective more closely aligns with your views?

- A. Assessments are a solution for creating an education system that meets the needs of all students.
- B. Assessments are not a solution for creating an education system that meets the needs of all students.

### **Equity vs. Equality in Education**

Which perspective more closely aligns with your views?

- A. It is best when students receive educational resources that account for their specific learning needs.
- B. It is best when all students receive the same educational resources, no matter their learning needs.

## **II. Cultural Mindsets**

Cultural mindsets were primarily measured using batteries of items designed to capture the core assumptions or ideas of a mindset. All but one mindset was measured on a 7-pt scale, from very strongly disagree to very strongly agree. The remaining mindset was measured on a 5-pt scale (with the Likert scale specified below) from not at all a problem to a major problem.

### **Learning Is Additive/Growth Mindset $\alpha = .83$**

1. Learning means gaining new knowledge.
2. Learning means improving your skills.
3. When we develop new skills, we have learned something.
4. Learning adds up over time.

### **Learning Is Self-Guided $\alpha = .78$**

1. Anyone can learn on their own.
2. Learning is primarily a self-guided process.
3. There are many skills that you can teach yourself.
4. People learn mostly by engaging on their own, without instruction.

**People Learn Differently  $\alpha = .87$** 

1. People vary in how they learn.
2. Each person has a unique way of learning.
3. People learn information in ways that are specific to them.
4. Everyone learns in different ways.

**Assessment Is Evidence  $\alpha = .88$** 

1. Learning assessments are used to identify where knowledge is missing.
2. Gaps in understanding can be spotted through the use of assessments.
3. Education assessments can help pinpoint where skills are improving.
4. Assessments are used to identify where additional learning and improvement is needed.

**Assessment Is Practical Application  $\alpha = .85$** 

1. Learning assessments are used to identify whether someone can independently perform a skill.
2. Assessments are designed to measure whether someone can use knowledge in real-life.
3. The ability to put knowledge into practice can be identified using assessments.
4. Assessments are used to show how well someone can apply their knowledge.

**Assessment Is Meeting Standards  $\alpha = .79$** 

1. Assessments measure whether students are meeting state learning standards.
2. Educational assessments determine what is needed to reach state learning standards.
3. Students are assessed according to state learning standards.

**Exceptional Teacher  $\alpha = .83$** 

1. A good teacher can help any student learn.
2. When teachers care about their work, students learn better.
3. Any student can learn if they have a great teacher.
4. With the help of a good teacher, even a struggling student can learn.

**Starts at Home  $\alpha = .76$** 

1. Parents and guardians are primarily responsible for shaping their children's attitudes towards education.
2. If parents and guardians don't value education, their children won't either.
3. Caregivers are responsible for teaching their children to value education.
4. It is up to parents and guardians to motivate their children to do well in school.

**Motivated Student  $\alpha = .84$** 

1. Motivated students are more successful in school.
2. If students are motivated enough, they can learn anything.
3. Students can do well in school if they work hard enough.
4. Students can learn anything if they apply themselves.

**School as a Safe Haven  $\alpha = .85$** 

1. A safe and secure school environment is necessary for effective learning.
2. Students' ability to learn is closely tied to the safety of the school.
3. Kids learn best when they feel safe at school.
4. When students don't feel safe at school, it's hard for them to learn.

**Cultural Essentialism  $\alpha = .80$** 

1. If some cultural groups don't do well in school, it is because of the difference in how these groups value education.
2. Certain cultural groups do well in school because their culture values education.
3. Some cultures place a higher value on educational achievement than others.
4. Students from some cultures do poorly in school because their cultures don't value education.

**Personal Wealth  $\alpha = .84$** 

1. Students from wealthy areas have more educational opportunities.
2. Poor families have fewer opportunities for good education.
3. Lower quality schools tend to be located in low-income communities.
4. Wealthy people usually attend good schools.
5. Families with more money can send their kids to better schools.

**Government Funding  $\alpha = .90$** 

1. Government funding is critical to ensure that all students get a quality education.
2. Cuts to government funding reduces the quality of our educational system.
3. If government funding increased, our educational system would be more effective.
4. When government funding is cut, some communities have a harder time accessing quality education.

**"It's about Class, Not Race"  $\alpha = .80$** 

1. Compared to race, getting a good education depends more on how much money a family has.
2. Unequal access to good quality education has more to do with income, not race.
3. Compared to race, a family's income level has a greater impact on access to quality education.



### **Historical Legacy/Inheritance Model of Racism $\alpha = .95$**

1. Lingering effects of past discriminatory policies make it difficult for Black and brown people to get a good education today.
2. Past laws and policies—such as slavery, school segregation and redlining—made it so that Black and brown neighborhoods have poor quality schools.
3. Our country's racist history makes it difficult for Black and brown people today to get a high quality education.
4. Black and brown families today experience education disparities created by our racist past.

### **The Disability Exception $\alpha = .81$**

1. Assessments should be adjusted to the needs of students with learning disabilities.
2. Classroom instruction should be designed to meet the needs of students with learning disabilities.
3. Students with learning disabilities should have access to learning resources designed to meet their specific needs.

### **Cultural Background $\alpha = .86$**

1. Assessments should be adjusted to the needs of students' cultural backgrounds.
2. Classroom instruction should be designed to meet the needs of all students' cultural backgrounds.
3. It's important for students to have access to learning resources that are tailored to their cultural backgrounds.

### **High Stakes of Assessment $\alpha = .80$**

The items below are statements regarding assessments. How much of a problem – if at all – do you think each of the following items are? [5-point Likert Scale 1 =Not at all a problem, 2 = A small problem, 3 = A moderate problem, 4 =A big problem, 5 =A major problem]:

1. How well a student does on an assessment often determines whether or not they get a scholarship.
2. Learning assessments play a major role in whether someone gets into college.
3. Assessments often contribute to heightened stress levels among students.
4. The amount of funding a school receives is determined by how well their students do on assessments.
5. Teachers feel the need to design their lesson plans to make sure students do well on assessments.
6. When students do poorly on learning assessments, it can affect their teacher's job security.

### **Social Decline $\alpha = .88$**

1. Today's society doesn't value education.
2. In today's world, people don't value education like they used to.
3. People today have lower standards when it comes to education.

# Endnotes

1. Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: strategies for qualitative research (observations)*. Aldine; Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: grounded theory procedures and techniques*. Sage.
2. Quinn, N. (Ed.). (2005). *Finding culture in talk: A collection of methods*. Palgrave Macmillan.
3. Marsh, H. W., Wen, Z., & Hau, K. T. (2004). Structural equation models of latent interactions: evaluation of alternative estimation strategies and indicator construction. *Psychological Methods*, 9(3), 275. <https://doi.org/10.1037/1082-989x.9.3.275>
4. Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238. <https://doi.org/10.1037/0033-2909.107.2.238>
5. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). Erlbaum.
6. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). Erlbaum.
7. Due to rounding, the total of some demographic groups may not add up to exactly 100%.

## About FrameWorks

The FrameWorks Institute is a non-profit think tank that advances the mission-driven sector's capacity to frame the public discourse about social and scientific issues. The organization's signature approach, Strategic Frame Analysis®, offers empirical guidance on what to say, how to say it, and what to leave unsaid. FrameWorks designs, conducts, and publishes multi-method, multi-disciplinary framing research to prepare experts and advocates to expand their constituencies, to build public will, and to further public understanding. To make sure this research drives social change, FrameWorks supports partners in reframing, through strategic consultation, campaign design, FrameChecks®, toolkits, online courses, and in-depth learning engagements known as FrameLabs. In 2015, FrameWorks was named one of nine organizations worldwide to receive the MacArthur Award for Creative and Effective Institutions.

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# Methods Supplement for Envisioning Equity

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