

Appendix B: Project Approach/Survey Methodology, Limitations, and Other Research Notes

Phase	Method/Sample Type/Sample Size	Purpose
Conceptualization	Literature review ⁵ 6 expert interviews	Develop and refine concepts to be tested on/reflected in survey and interview work.
Pilot survey	323 workers age 18+ employed full or part time (not self-employed) in the United States, July 29 to August 2, 2022. 15-minute online survey.	Test concepts and language in survey questions, including variation (English only). Obtain preliminary data to refine survey questions, including open-ended responses. Obtain respondents for qualitative interviews. Pilot study interviews are not included in the final data for the main study.
Qualitative interviews and advisory committee review	18 workers who agreed to be contacted in pilot survey, conducted 30-minute interviews in August and September 2022 in English via Zoom (audio only with a couple of exceptions where respondents wanted to be on video). Sent digital gift card incentive after completion. ~8 reviewers ⁶	Contextualize pilot survey findings/capture stories revealed in pilot (English only, six Asian-American workers, five Black workers, three Latino workers, and four White workers). Gather input on final main survey questionnaire.

5 Interviews with subject-matter experts (practitioners and researchers) include: Amy Armitage, Founder and Co-chair, Human Capital Investment and Reporting Council; Arthur Brief, David Eccles School of Business and Presidential Professor Emeritus, University of Utah; Lindsay Dhanani, Assistant Professor of Human Resource Management, School of Management and Labor Relations, Rutgers University; Alexandra Kalev, Associate Professor of Sociology and Anthropology, Tel Aviv University; Tony Mayo, Thomas S. Murphy, Senior Lecturer of Business Administration and C. Roland Christensen Distinguished Management Educator, Harvard Business School; and Winny Shen, Associate Professor of Organizational Studies, York University. Takeaways from conversations with these subject-matter experts and related literature are included in Appendix E.

6 The survey was reviewed by members of the project's advisory committee: Nancy DiTomaso, Distinguished Professor of Management and Global Business, Rutgers University Business School; Edwin Melendez, Professor of Urban Affairs and Planning, Hunter College and Director of the Center for Puerto Rican Studies; Akwasi Osei, Professor of History, Political Science and Philosophy, Delaware State University; Annemarie Schaefer, Vice President of Research, SHRM; Winny Shen, Associate Professor of Organizational Studies, York University; and Michelle Stephens, Professor, Department of Latino and Caribbean Studies and Department of English, Rutgers University and Executive Director of the Institute for the Study of Global Racial Justice.

Main survey	3,277 workers age 18+ employed full or part time (not self-employed) in the United States, November 15 to December 9, 2022. 20-minute online and phone survey.	Generate survey data (English and Spanish).
Qualitative interviews/focus groups	20 workers who agreed to be contacted in main survey, conducted 30-minute interviews in March and April 2023 in English via Zoom (audio only with a couple of exceptions where respondents wanted to be on video). Sent digital gift card incentive after completion.	Capture stories revealed in main survey (English only, four Asian-American workers, eight Black workers, three Latino workers, and five White workers).

Table B-1: Project Approach (all phases approved by the Institutional Review Board at Rutgers University)

Survey questions asking respondents to self-report their race and ethnicity:

This is about Hispanic ethnicity. Are you of Spanish, Hispanic, or Latino descent?	1	No, I am not
	2	If yes, is that Mexican, Mexican American, Chicano or
	3	Puerto Rican or
	4	Cuban
	5	Central American or
	6	South American or
	7	Caribbean or
	8	Other Spanish/Hispanic/Latino

Please check one or more categories below to indicate what race or races you consider yourself to be.	1	White
	2	Black or African American
	3	American Indian or Alaskan Native - Type in name of enrolled or principal type
	4	Asian Indian
	5	Chinese
	6	Filipino
	7	Japanese
	8	Korean
	9	Vietnamese
	10	Other Asian - Type in race
	11	Native Hawaiian
	12	Guamanian or Chamorro
	13	Samoan
	14	Other Pacific Islander - Type in race
	15	Some other race - Type in race

Table B-2 summarizes various considerations made by project researchers when designing the project activities, and the rationale for and approach taken for each.

Consideration	Rationale	Approach
Question framing/tone	Survey questions should be framed both positively and negatively to give respondents the opportunity to agree and/or disagree with the situations, to refrain from assuming negative experiences are the norm.	Ask questions about workplace culture that are framed affirmatively (positively) and negatively.
Use of terminology/definitions	<p data-bbox="550 630 932 657">Definition of Important Terms</p> <p data-bbox="550 688 959 930">Define what researchers mean by "diversity," "equity," and "discrimination," among other terms, to attempt to differentiate between them and for a general population sample. Limit use of the word "inclusion."</p> <p data-bbox="550 961 854 989">Use of Important Terms</p> <p data-bbox="550 1020 959 1329">The word "discrimination" is a loaded term for a respondent to process, but also captures the type of experience researchers are looking to measure. "Unfair treatment" because of race or ethnicity is also discrimination, but may not be perceived as such by the respondent.</p>	<p data-bbox="995 630 1369 804">As suggested by NORC, use "hover-over" definitions/term explanations for respondents (and note availability of definitions for other modes).</p> <p data-bbox="995 835 1369 1035">Where appropriate, use half-samples to test both terms and compare responses. To get at perception, use the term "what you consider to be discrimination."</p>

Measuring/quantifying discrimination experiences

Time

Multiple Questions

A single question asking about discrimination is likely not sufficient to capture the breadth of experience.

Question Order

There are unique advantages and disadvantages to asking about these experiences earlier in the survey and later in the survey.

Breadth vs. Depth

Closed-ended survey questions asking about discrimination experiences should be accompanied by an opportunity for the respondent to describe; will inform [how these experiences manifest](#) for individuals and within organizations.

Intersectionality/asking about experiences through multiple identities

Multiple types of discrimination experiences (witnessing versus experiencing; regular occurrences vs. a single incident, current and past).

The various stages of discrimination experiences: Experiencing, reporting, retaliation.

Qualify questions – “where I work” or “at work” or “ever” – current job, previous job, or professional life.

Ask multiple measures in various parts of the survey (being careful to note possible order effects, and to acknowledge the positive/negative tone approach mentioned above).

Use purposeful open-ended questions to capture description and nuance.

Question wording is based off of scales and question stems in the YES Study.⁷

Use purposeful [open-ended questions](#) to capture [description and nuance](#).

Question wording is based off of scales and question stems in the [YES Study](#).

Table B-2: Survey Methodology/Operationalization and Conceptualization

⁷ Adapted from <https://www.midus.wisc.edu/>, <https://www.icpsr.umich.edu/web/ICPSR/series/151>, and others: McNeilly, M. D. et al. (1996). The perceived racism scale: A multidimensional assessment of the experience of white racism among African Americans. *Ethnicity and Disease*, 6(1,2), 154-166. Bobo, L. D., & Suh, S. A. (2000). Surveying racial discrimination: Analyses from a multiethnic labor market. In L. D. Bobo, M. L. Oliver, J. H. Johnson Jr., & A. Valenzuela Jr., (Eds.), *Prismatic metropolis: Inequality in Los Angeles*. Russell Sage Foundation. https://scholar.harvard.edu/files/bobo/files/2000_surveying_racial_discrimination_analyses_from_a_multiethnic_labor_market_0.pdf. Williams, D. R. et al. (2012). Research on discrimination and health: an exploratory study of unresolved conceptual and measurement issues. *American Journal of Public Health*, 102(5):975-978.

Setting and Study Population of Main Survey

The main survey was conducted using the [NORC at the University of Chicago AmeriSpeak®](#) Panel-Based Research Platform. Funded and operated by NORC at the University of Chicago, AmeriSpeak® is a probability-based panel designed to be representative of the U.S. household population. Randomly selected U.S. households are sampled using area probability and address-based sampling, with a known, non-zero probability of selection from the NORC National Sample Frame. These sampled households are then contacted by U.S. mail, telephone, and field interviewers (face to face). The panel provides sample coverage of approximately 97% of the U.S. household population. Those excluded from the sample include people with P.O. box-only addresses, some addresses not listed in the U.S. Postal Service Delivery Sequence File, and some newly constructed dwellings. While most AmeriSpeak® households participate in surveys by web, non-Internet households can participate in AmeriSpeak® surveys by telephone. Households without conventional Internet access but having web access via Smartphones are allowed to participate in AmeriSpeak® surveys by web. AmeriSpeak® panelists participate in NORC studies or studies conducted by NORC on behalf of government agencies, academic researchers, and media and commercial organizations. A technical overview of NORC's AmeriSpeak® Panel methodology can be found [here](#). For more information, visit AmeriSpeak.norc.org.

The area probability sample of 2,539 workers was combined with a Lucid non-probability sample of 738 workers and calibrated using NORC's [TrueNorth](#) methodology. The sample of 3,277 full- and part-time U.S workers age 18+ was reached online and by phone in English and Spanish between November 15 and December 9, 2022. Respondents were offered the cash equivalent of \$4 to complete the survey.

Study Target Population: National general population sample age 18+ who are employed full time or part time, excluding those who are self-employed.

Sample Units (probability cases only): 15,098

Overall Completed Units: 3,277

Probability Completed Units: 2,539

Non-probability Completed Units: 738

Expected Eligibility Rate: 70%

Observed Eligibility Rate: 72%

Survey Field Period: November 15 to December 9, 2022

Median Duration (minutes): 21

The data were weighted in three stages. First, probability and non-probability sample weights were developed separately, with population benchmarks from the American Community Survey by race/ethnicity, age, gender, education, and Census region. Second, small area estimation was leveraged to model core estimates of the survey within the non-probability sample. Finally, the two samples were

combined to create the final weights. These final two stages comprise NORC's TrueNorth Calibration. This survey includes large sample sizes for Black, Latino, and Asian-American workers, which were weighted down to their proportions in the overall population in the final main study weights. NORC applied cleaning rules for quality control, including attention checks and removing speeders, high-refusal responses, and straight-liners.

	Unweighted Percentage	Weighted Percentage
Race and Ethnicity		
Asian American	18%	7%
Black	24%	12%
Latino	28%	19%
White	29%	63%
Total	100%	100%
Gender⁸		
Male	42%	53%
Female	58%	47%
Total	100%	100%
Education		
Less than high school	4%	6%
High school graduate or equivalent	14%	26%
Vocational/tech/some college/associate	34%	30%
BA+ NET	48%	37%
Bachelor's degree	28%	22%
Post grad/professional degree	20%	15%
Total	100%	100%
Household Income		
<\$30K	17%	17%
\$30K to \$59,999	27%	26%
\$60K to \$99,999	27%	26%
\$100K+	30%	31%
Total	100%	100%

⁸ Ninety-seven percent (weighted) of the sample indicated they were male in their panel demographics and in the survey. Ninety-eight percent (weighted) of females indicated they were female in their panel demographics and in the survey. Two percent of the sample indicated that are transgender or use a different term, when asked about their gender identity. The analysis in this report includes the gender that panelists indicated to NORC when joining the AmeriSpeak[®] panel.

	Unweighted Percentage	Weighted Percentage
Personal Income		
<\$30K	24%	28%
\$30K to \$59,999	33%	31%
\$60K to \$99,999	25%	23%
\$100K+	18%	17%
Total	100%	100%
Region		
Northeast	14%	18%
Midwest	23%	21%
South	38%	37%
West	25%	23%
Total	100%	100%
Party ID		
Democrat/Lean Democrat	55%	43%
Don't lean/Independent/None	19%	18%
Republican/Lean Republican	25%	38%
Total	100%	100%

Table B-3: Survey Respondent Socioeconomic Demographics, Main Survey

	Unweighted Percentage	Weighted Percentage
Employment Status		
Employed working full time	81%	79%
Employed working part time	17%	19%
Retired but working	2%	3%
Total	100%	100%
Employment Wage Type		
Salary	46%	42%
Hourly (NET)	54%	58%
With tips	3%	55%
Without tips	51%	3%
Total	100%	100%
Employer Type		
Government	23%	21%
Private company/organization (for-profit)	63%	66%
Nonprofit organization	11%	9%
Self-employed	3%	4%
Total	100%	100%
Company/Organization Size		
Less than 15 (NET)	22%	27%
1 to 4	11%	13%
5 to 9	16%	8%
10 to 14	5%	6%
15 to less than 100 (NET)	26%	27%
15 to 49	14%	14%
50 to 99	12%	13%
100 or more (NET)	53%	45%
100 to 249	12%	11%
250 to 499	9%	9%
500+	32%	25%
Total	100%	100%

Table B-4: Survey Respondent Worker Demographics, Main Survey

	Unweighted Percentage	Weighted Percentage
Interview Type		
Desktop	30%	32%
Phone interview (not online)	1%	1%
Smartphone	68%	66%
Tablet	1%	1%
Total	100%	100%
Survey Language		
English	97%	98%
Spanish	3%	2%
Total	100%	100%

Table B-5: Survey Methodology Demographics, Main Survey

	Unweighted Sample Size
Race and Ethnicity and Income	
Asian American <\$50K	105
Asian American \$50K+	459
Black <\$50K	359
Black \$50K+	480
Latino <\$50K	292
Latino \$50K+	426
White <\$50K	214
White \$50K+	622
Race and Ethnicity and Gender	
Asian-American Male	256
Asian-American Female	349
Black Male	311
Black Female	604
Latino Male	312
Latino Female	490
White Male	492
White Female	463
Race and Ethnicity and Age	
Asian American 18 to 44	386
Asian American 45+	219
Black 18 to 44	463
Black 45+	452
Latino 18 to 44	535
Latino 45+	237
White 18 to 44	531
White 45+	424

	Unweighted Sample Size
Combined Race and Ethnicity and Wage Type	
Non-White, Salary	826
Non-White, Hourly	923
White, Salary	341
White, Hourly	384

Table B-6: Survey Respondent Demographics by Race and Ethnicity, Main Survey

Key Definitions

The following definitions, which appeared to respondents in the survey (or were available to telephone interviewers if requested by respondents), were decided upon based on a combination of the following: the research team, expert interview conversations, findings of the pilot survey, the [Harvard Foundational Concepts and Affirming Language Guide](#), and the work of the [Rutgers University Division of Diversity, Inclusion, and Community Engagement](#).

People of color: “People of color” is a term that includes people who are Hispanic or Latino; Black or African American; American Indian or Alaska Native; and Asian American and Pacific Islander; as well as people who are biracial or multiracial.

Race and ethnicity: Race, cultural identity, or national origin (the part of the world you are from or appear to be from).

Prejudice: Prejudgment in favor of or against a person or group.

Racial and ethnic equity: The guarantee of fair treatment, access, opportunity, and advancement for all people, regardless of their race, cultural identity, or national origin (the part of the world they are from or appear to be from). Equity recognizes that there are some historically underserved and underrepresented populations that need fairness in how these things are distributed, to achieve equality.

Discrimination because of race or ethnicity: An action, including hiring, firing, and promotion, based on a conscious or unconscious prejudice (a pre-judgment) that favors some people over others because of their race, their cultural identity, or their ethnicity (the part of the world they are from or appear to be from)

Racial and ethnic diversity: Having people of various racial and ethnic backgrounds, including race, cultural identity, or national origin (the part of the world they are from or appear to be from).

Included: Visible, heard, and respected by the people you work with, regardless of race or ethnicity

Unconscious bias: Attitudes and stereotypes that influence judgment, decision-making, and behavior in ways that are outside of conscious awareness and/or control.

Selected Pilot Survey and Interview Findings

- **Open-ended questions** in the survey describing experiences were useful. For a small percentage of respondents who felt like answering, they offered examples of what they have witnessed or experienced and opened the door to conversations in the interviews.
- In the pilot interviews, workers commented that “unfair treatment” because of a person’s race or ethnicity is always discrimination if the afflicted’s identity can be ascertained as the reason behind the discrimination experience, but unfair treatment alone can exist in the workplace. In the surveys, unfair treatment is 29% major problem in private companies; discrimination is 43% major problem in private companies, when comparing half-samples. Others the research team asked about (government, nonprofit) are the same.

For that reason, the terms “unfair treatment because of race or ethnicity” and “what you consider to be discrimination because of race or ethnicity” were the terminology used in the survey, for half-samples, because of these perceptions.

- In some cases, where the interviewee had described an experience in the survey, researchers asked about it. In nearly all cases, the respondent described the incident/remembered what was asked and gave detail about it. In one or two cases, the survey question was misunderstood or the respondent didn’t remember. When asking about the various experiences earlier in the questionnaire, and then asking what was the reason, there seems to be less incidence (when asking a follow-up...why was this?), compared to asking about the various experiences “because of race or ethnicity” later in the questionnaire. The research team thinks it needs to prompt respondents, rather than have the respondent be burdened with thinking about why.
- Many interviewees talked about issues in their previous jobs. When asked about being treated fairly and inclusion, most workers think their current place of employment is better than other places of employment generally, and also better than their past jobs. In some cases, workers asked about diversity and inclusion when searching for their current jobs. In some cases, they have chosen jobs based on their past experiences in previous jobs and even with education, remembering those experiences and realizing after the fact that it was harmful/affected them economically.
- Some interviewees used the typical language that is salient lately but often overused or misunderstood (microaggressions, bias, DEI) but in most cases, they did not. Inclusivity vs. diversity are terms that are different/unique to all respondents – and capturing inclusivity and diversity spans a wide range of characteristics, in addition to race and ethnicity. Unfair treatment because of a personal characteristic and discrimination are different to nearly all of the interviewees – unfair treatment is possible without discrimination, and is not as serious of an issue as discrimination.
- Perceptions about inclusion and discrimination don’t elicit responses about race and ethnicity without being prompted. Some interviewees said their race or their ethnicity was “part” of the reason they think they were treated unfairly, discriminated against, or had a workplace culture issue, but it wasn’t the top reason, yet it exacerbated the situation. Pregnancy-related, being an independent contractor, gender, sexual orientation, and even personality type were mentioned as top-level reasons that inclusion was an issue, or unfair treatment/discrimination was apparent, perceived, or experienced.

- Thinking about DEI (loaded term – researchers also added “reducing discrimination”) – some of the interviewees focused on one aspect of the menu of options they have in their workplace/what was asked about. Some said it was all about the manager (whether their own manager or they themselves are the manager). Some said it was the training right at the outset of hiring/orientation that is most important to define the expectations. Another said it was a mentor, or someone who told them to stay away from a certain unit or department, when they were looking into work.

Limitations

There are limitations to this study, including:

- Use of panel data:** Given their experiences taking surveys, AmeriSpeak® panelists are more “sophisticated” in their ability to answer survey questions about attitudes, opinions, and behaviors on social and other issues, compared to the average U.S. adult.
- Use of calibration:** Calibrated according to NORC’s TrueNorth process, the use of non-probability methods when combining with survey data derived from probability-based methods is a novel approach to surveying hard-to-reach U.S. adults or socioeconomic subgroups of the U.S. adult population.
- Survey and interview language:** The survey was conducted in English and Spanish. The interviews were conducted in English (with an option for subjects to be interviewed in Spanish). There are many languages, especially Asian-speaking languages, that do not reflect the survey population.
- Survey bias:** The inherent bias associated with recall, social desirability, and non-response (both item and panel).
- Sampling nuance:** Disaggregation of various measures by important workforce demographics that may explain/affect variation in opinions, perceptions, and experiences was not always possible, such as type of employer, industry, and tenure at job.
- Measurement of race and ethnicity and aggregation of groups:** The research team acknowledges that further disaggregation of workers by race and ethnicity is essential to study the unique experiences and impacts of workplace discrimination. Further, this study aggregates workers into groups based on self-reporting of race and ethnicity, which is an imperfect measure at best, as efforts are being made to revise, update, and/or improve the measurement of self-reported race and ethnicity, most notably being undertaken by the [U.S. Office of Management and Budget](#).
- Measuring racial discrimination:** The inherent limitations of measuring racial discrimination, which include bias in reporting and methodological considerations, such as measuring self-reported perceptions and experiences rather than “directly” measuring discrimination, the question format, and what meaning is attributed to the various question prompts, question items, and answer categories.⁹ Furthermore, satisficing of responses, related to the race-priming hypothesis, where “people will search their memory for negative events and try to assign racial meaning to them.”¹⁰ Disaggregation

⁹ National Research Council. (2004). *Measuring racial discrimination*. The National Academies Press.

¹⁰ Ibid.

of workers by specific race and ethnicity will likely elicit various experiences and meaning attached to those experiences.¹¹ Individual perceptions of workplace climate vary widely.¹² Finally, concepts related to country of origin, colorism, and accents.

- **Depth and breadth of concepts:** The study could not include all situations, experiences, or context associated with perceptions and opinions of racial and ethnic discrimination in the workplace: artificial intelligence bias, impact of media consumption, hiring experiences, the role of line managers, experiences with harassment situations, measuring respect or other specifics of inclusion, the race and ethnicity of a worker's manager/supervisor, and knowledge of Equal Employment Opportunity Commission policies and procedures.

11 Hongseok, L. (2022). Perceived racial discrimination in the workplace: Considering minority supervisory representation and inter-minority relations. *Public Management Review*, 24(4), 512-535.

12 https://uwspace.uwaterloo.ca/bitstream/handle/10012/15298/Yeung_Edward.pdf?isAllowed=y&sequence=3