

**ICPSR 37166** 

Generations: A Study of the Life and Health of LGB People in a Changing Society, United States, 2016-2019

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Methodology and Technical Notes

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## Methodology and Technical Notes Gallup Quantitative Survey

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# **About the Generations Study**

The Generations study is a five-year study designed to examine health and well being across three generations of lesbians, gay men, and bisexuals (LGB). The study explores identity, stress, health outcomes, and health care and services utilization among LGBs in three generations of adults who came of age during different historical contexts. Minority stress theory has provided an effective model for the study of health disparities in LGB individuals. However, today's LGB youth have come of age in a society that is more accepting of sexual diversity than ever in the past. Because of its focus on the social environment, minority stress theory leads us to predict that with improvement in the social conditions of LGB people, the character of stress processes, and associated health outcomes affecting LGBs has also changed. The study aims to assess whether younger cohorts of LGBs differ from older cohorts in how they experience stress related to prejudice and everyday forms of discrimination, and whether patterns of resilience differ between different LGB cohorts. Additionally, the study aims to examine how differences in stress experience affect mental health and well being, including depressive and anxiety symptoms, substance and alcohol use, and suicide ideation and behavior, and how younger LGBs utilize LGB-oriented social and health services, relative to older cohorts.

### **Generations Recruitment**

Generations participants were recruited by Gallup, Inc., a survey research consulting company (http://www.gallup.com/) using the Gallup Daily Tracking Survey as initial contact. Generations participants were screened and enrolled in the study between March 28, 2016 – March 30, 2017. An enhancement oversample, recruiting Back and Latino respondents was screened and enrolled between April 1, 2017 – March 30, 2018. Research participants provided oral consent to be screened, due to minimal risk.

The Daily Tracking Survey is a telephone interview of a national probability sample of 1,000 adults ages 18 and older daily (350 days a year) to inquire about topics including the respondents' politics, economics and general well-being. Respondents include English and Spanish-speaking individuals from all 50 U.S. states and the District of Columbia

Gallup uses a dual-frame sampling procedure, which includes random-digit dialing (RDD) to reach both landline and cellphone users, as well as an additional random selection method for choosing respondents with landlines. Gallup stratifies the RDD list to ensure that the unweighted samples are proportionate by U.S. Census region and time

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zone. Gallup weights the data daily to compensate for disproportionalities in non-response and selection probabilities.

The Generations study used a 2-step recruitment procedure. In the first step, utilizing a question asked of all Gallup respondents, all LGBT individuals were identified. The Gallup question to assess sexual orientation and gender identity asked by the phone interviewer is "I have one final question we are asking only for statistical purposes. Do you, personally, identify as lesbian, gay, bisexual, or transgender?"

In the second step, respondents who were thus identified as LGBT were assessed for eligibility for participation in the Generations study and those eligible were invited to participate in Generations.

Respondents were eligible if they identified as LGB (and not transgender) in response to a question that asked if they were lesbian, gay, bisexual, queer, or same- gender loving, if they were in the age and race/ethnicity groups targeted for the 3 cohorts under investigation in Generations: ages 18 - 25, 34 - 41, or 52 - 59; Black, Latino, or White; completed 6th grade at least, and if they spoke English well enough to conduct the phone interview in English. (Respondents who identified as transgender, regardless of their sexual orientation, were screened for participation in a sister TransPop study.)

Respondents who were eligible for participation in Generations were invited to participate in the study. If they agreed, they were emailed or mailed a survey questionnaire to complete by self-administration (via a web link or printed questionnaire, respectively). Respondents were sent \$25 gift certificate.

Participants responded to the survey by self-administering the study questionnaire either online via a link provided in an email or on paper via a mailed questionnaire returned in a pre-stamped preaddressed envelope.

Participants read an information sheet (See Appendix 1) prior to beginning the survey and consented by filling out the questions and submitting it to the researchers. No signed consent forms were collected because of the self-administered nature of the data collection and because it was determined that a signed consent form, it if were collected, would impose an unnecessary risk to the respondents' confidentiality.

The study protocol was reviewed by the Gallup IRB, the UCLA IRB and the IRBs of collaborating institutions through reliance on UCLA IRB. Collaborating institutions have included Columbia University, the University of Texas at Austin, the University of California, Santa Cruz, the University of California, San Francisco, the University of Arizona, the University College London, UK, and the University of Surrey, UK.

Following this baseline interview, respondents are scheduled to complete two follow up surveys, using the same modality (mail or web) and the same compensation of \$25 per interview, one year apart, at Year 2 and Year 3.

## Data sources described in this document

- 1. Gallup survey—Gallup survey administered to all respondents as part of the Gallup Daily phone survey.
- 2. Gallup screen—A screen conducted by Gallup on phone to determine eligibility for the Generations survey.
- 3. Generations survey—A self-administered survey completed online via link sent by email or on paper via mailed questionnaire to all eligible Generations respondents.

While the dataset consists mostly of data obtained from the Generations survey (variables affixed with "w1" prefix), key variables are also included from the Gallup survey (affixed with "g" prefix) and Gallup screen (affixed with "screen" prefix").

# **Generations eligibility**

Eligibility for the Generations study was assessed in two stages through items that already existed on the Gallup Daily Tracking Survey, as well as additional screener questions that the Generations Study team included. First, respondents were identified as potentially eligible using responses to 5 items from the Gallup Daily Tracking Survey:

Measure	Question Text	Response Options	Generations Eligibility
Age	Please tell me your	Open Ended	18-25
	age		34-41
			52-59
Education	Education What is the highest level of school you have completed or the highest degree you have received?	Less than a high school diploma (Grades 1 through 11 or no schooling	Eligible
		Highschoolgraduate(Grade 12 with diploma or GED certificate)	Eligible
		Technical, trade, vocational or business school or program after high school	Eligible
		Some college – college, university, or community college but no degree	Eligible

Second, those meeting eligibility requirements based on the five items above were then informed they were potentially eligible for participation in the Generations study. If interested in participation, they were then asked the following 2 questions from the Generations study team to determine final eligibility:

Measure	Question Text	Response Options	Generations Eligibility
Education,	What is the highest	5th grade or lower	Not eligible
6th grade or higher	level of school you have completed? (Only asked of those selecting "Less than a high school diploma (Grades 1 through 11 or no schooling" on education	6th grade or higher	Eligible
Sexual identity	Do you consider yourself to be?	Straight or heterosexual	Not eligible
		Lesbian	Eligible
		Gay	Eligible
		Bisexual	Eligible
		Queer	Eligible
		Same-gender loving	Eligible
		Don't know	Eligible
		Refuse	Eligible

# **Generations Sample**

## Language: How to characterize the sample?

Respondents were initially identified to Gallup interviewers as lesbian, gay, bisexual, or transgender (LGBT). Since transgender respondents were included in a separate study (TransPop), the term "LGB" accurately describes the sample, as initially recruited. During subsequent screening steps, and on the Generations surveys, respondents were able to choose from a wider variety of sexual identity labels (e.g., queer, same-gender-loving) or indicate a category not listed (e.g., pansexual, asexual) and so the term "sexual minority" may also be appropriate when referring to the Generations sample. Here, we use the terms "LGB" and "sexual minority" interchangeably, and some variability is expected, depending on the research questions and requirements for publication.

# **Sample: Baseline (Wave 1)**

The Generations baseline sample was recruited between March 28, 2016 and March 30, 2017. In the first year of recruitment 366,644 participants were screened by Gallup for inclusion in the Generations study. Of them, 3.5% were identified as LGBT and 27.5% of them were eligible for Generations based on the eligibility criteria. Of those eligible, 80% agreed to participate in the survey and of those, 48% completed the survey, for a total response rate of 39%.

To increase the number of racial/ethnic minority respondents we oversampled Black and Latino respondents using the same procedures by extending the recruitment period (April 1, 2017 to March 30, 2018). The final dataset for the Generations baseline survey included 1,563 respondents: 1,369 were recruited into the original sample (2016-2017) and 194 were recruited into the enhancement oversample (2017-2018).

Of the 1,563 baseline respondents who were enrolled, a total of 45 were removed from the data set: 27 respondents were identified as transgender and they were added to the TransPop dataset, a parallel population study of transgender individuals, which was conducted concurrently with Generations; 18 respondents provided an eligible age at screening (screen age variable not included in the dataset), but subsequently provided an ineligible year of birth on the survey and were removed from the sample (of them, 16 were of ages that did not fit the adjusted cohort age limits (see below, Cohorts) and 2 respondents who were under age 18). The final Generations baseline sample size was 1,518, including 1,331 from original sample, 187 from enhancement sample (see Table 4b).

The variable **w1sample** can be used to identify whether respondents were recruited into the original baseline sample or the enhancement (oversample) baseline sample.

### Sample: Wave 2

Wave 2 of data collection occurred between April 1, 2017 and March 30, 2018. Respondents were re-interviewed approximately one year after completion of the baseline survey. Only respondents who participated in the original sample of participants were surveyed at wave 2 (i.e., the enhancement oversample was not included in the longitudinal design of this study). Thirty respondents who agreed to participate in the Generations survey at baseline did not submit a baseline survey in time for inclusion in the sample. However, these respondents did complete a wave 2 survey. Given the longitudinal design of the Generations study, these 30 respondents were removed from the wave 2 sample. The final Generations wave 2 sample was 894 (59% retention).

The variable **waveparticipated** can be used to identify whether respondents participated only in the baseline survey, or whether they participated in both wave 1 and 2 of survey collection.

Table 3. Recruitment statistics		
	N	%
Total screened	366,644	
LGBT Total ("Do you, personally, identify as lesbian, gay, bisexual, or transgender?" = "yes")	12,837	3.5%

Table 4a. Final s 1,536)	ample: Generations res	pondents by gende	er, race/ethnicity, a	and age cohort (N =
	White	Black	Latino	Total
	Total N (n	Total N (n	Total N (n	Total N (n
	baseline, n	baseline, n	baseline, n	baseline, n
	enhancement)	enhancement)	enhancement)	enhancement)
		Cohort 1 (	18-25 years)	
Male	153 (153, 0)	35 (21, 14)	84 (63, 21)	272 (237, 35)
Female	213 (213, 0)	90 (55, 35)	95 (65, 30)	398 (333, 65)
		Cohort 2 (34-41 years)		
Male	93 (93, 0)	30 (22, 8)	44 (27, 17)	167 (142, 25)
Female	141 (141, 0)	40 (23, 17)	24 (11, 13)	205 (175, 30)
		Cohort 3 (52-59 years)		
Male	212 (212, 0)	28 (19, 9)	27 (14, 13)	267 (245, 22)
Female	169 (169, 0)	16 (13, 3)	24 (17, 7)	209 (199, 10)
Total	981 (981, 0)	239 (153, 86)	298 (197, 101)	1,518 (1,331, 187)

Table 4b. Generations respondents, by recruitment and interview wave				
	Baseline (Wave 1)	Wave 2	Wave 3	Notes
Original sample	1,331	894		Available in dataset
Enhancement	187	0		Available in dataset
(oversample)				
Total	1,518	894		
	27 (transgender)	30 (no wave 1)		Removed from
	18 (age ineligible)	6 (age ineligible)		dataset; available
				upon request

# **Data Processing and Transformation**

#### New variable creation

Several variables were created using items from the Generations survey. The calculated variables are included in the final dataset. Each newly created variable is described below

#### Cohort.

Respondents were asked "in what year were you born?" (variable: w1q165), and a numeric age (variable: w1age) was calculated by subtracting birth year from the year in which the respondent completed the baseline survey (2016, 2017, or 2018). Respondents were then assigned to one of three Generational cohorts, below (variable: cohort). Since age was assessed at multiple time points (at screening, as well as on the survey), consistency across the two measures was assessed. Small variations of 2 years or fewer were allowed to account for changes in age between screening and survey, and also for possible errors in reporting. As such, the age ranges of each cohort were expanded by  $\pm$  2 years, as indicated in Table 5. 19 respondents did not provide a response to item w1q165, and their age reported at screening was assigned to w1age; these respondents are retained in the sample.

Table 5. Generations names				
Target Age	Expanded	Cohort name and supporting word		
Range	Age Range			
18-25	16-27	Cohort name: "cultural inclusion"		
		Support word: equality		
34-41	32-43	Cohort name: "institutional advancement"		
		Supporting word: visibility		
52-59	50-61	Cohort name: "identity formation"		
		Supporting word: pride		

#### Race.

A 3-category race variable (variable: screen\_race) was calculated based on respondents' reported races and ethnicities at screening (see Table 1 for specific questions). Based on the Gallup screen phone interview, eligible were only Black, Latino and White respondents but that included respondents who indicated multiple race/ethnic identities that included these three. We used the following algorithm in this order for classification: Anyone who indicated Hispanic/Latino was categorized as Latino regardless of any other entries; then, anyone who indicated Black/African American was categorized as Black regardless of other races selected except Latino, which took priority; then, anyone who indicated White including any other race, except Latino and Black, was categorized as White. All other response combinations were not eligible<sup>2</sup>, and so the variable screen\_race has only the three response options listed.

A less restrictive race/ethnicity (variable: w1race) was also calculated using responses from the Generations survey (variables: w1q20\_1 - w1q20\_7). This variable was included to provide context to the questions on identification with one's race/ethnic group. Respondents selecting more than one race/ethnicity on items w1q20\_1 - w1q20\_7 were categorized as "multiracial." 18 respondents did not provide a race response on the survey (w1q20\_1 - w1q20\_7), and so their race reported on the Gallup screen (variable: screen race) was assigned.

Race was not re-assessed at wave 2.

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<sup>&</sup>lt;sup>2</sup> This means, for example, that a respondent identifying as both Latino and American Indian would be recoded as Latino. Similarly, respondents identifying as both Black and White were recoded as Black, and respondents identifying as White and Asian were recoded as White. However, a respondent identifying as both Asian and American Indian would not have been eligible for the study. Eligibility restrictions based on race/ethnicity were implemented to ensure sufficient number of respondents in each category of race/ethnicity so that meaningful statistical analyses could be performed. Thus, for example, our a priori survey estimates, based on prior experience with Gallup respondents, showed that we could not recruit sufficient numbers of LGB Asian participants in each of the age/gender cells.

#### Sex assigned at birth.

Respondents' sex assigned at birth (variable: w1sex) was based on their reported sex at birth on the survey (variable: w1q27). However, 22 respondents who had missing data on variable w1q27 were assigned a value based on their sex reported on the Gallup survey. The Gallup survey asked respondents, "I am required to ask, are you male or female?" Response options were: male, female.

Sex assigned at birth was not re-assessed at wave 2.

#### Gender identity.

Respondents were assigned a current gender identity (variable: w1gender) based on their reported current gender identity on the survey (variable: w1q28).

However, 15 respondents did not provide a gender identity on the survey. Of them, 10 were assigned the gender identity reported on the Gallup screen<sup>3</sup>. The remaining 5 were also missing a gender identity on the Gallup screen, and so their values were assigned to be consistent with the sex assigned at birth (e.g., females were assigned as "women").

A third calculated variable (w1sex gender) is included in the dataset, in which responses from "w1sex" and "w1gender" were combined into a single analytic variable with 4 response categories: women, non-transgender; men, non-transgender; genderqueer/nonbinary (GQNB), female; GQNB, male.

## Sexual identity.

Two calculated sexual identity variables are included in the dataset. The first variable (w1sexualid) is equivalent to respondents' self-reported sexual identity on the survey (variable: w1q29). However, 71 respondents provided a write-in response (variable: w1q29 t verb). These 71 responses were placed into existing categories when possible (e.g., "DYKE" write-in response was placed into the "Lesbian" identity category), and new categories were created for common write-in responses (e.g., pansexual). The resulting categorizations are shown in Table 6. As such, the final variable (w1sexualid) contains more response categories than the original survey item (w1q29). 13 respondents did not provide a sexual identity on the survey, and their sexual identity reported on the Gallup screen was assigned in this variable.

<sup>&</sup>lt;sup>3</sup> Participants were recruited for the parallel TransPop study between March 8, 2016 – June 20. 2016 and January 1, 2017 – April 4, 2018. During this time, questions assessing current gender identity were included on the Gallup screen to determine whether respondents were routed either to the Generations (lesbian, gay, bisexual respondents who were not transgender) or TransPop study (transgender respondents, regardless of sexual orientation). Current gender identity on the Gallup screen was assessed with one of two questions. The first questions was "which of the following terms best describes your current gender identity?" Response options were: man, woman, non-binary/genderqueer. The second question was "Do you currently describe yourself as a man, a woman, or transgender?" Response options were: man, woman, transgender.

Table 6. Sexual identity write-in responses and resulting categorizations			
Resulting categorization (w1sexualid)	Write-in response (w1q29_t_verb)		
Lesbian	DYKE		
Lesbian	Lesbian and Same Gender Loving		
Gay	GAY/BICURIOUS		
Asexual spectrum	demi sexual		
Asexual spectrum	Bi-romantic Asexual		
Asexual spectrum	NON-SEXUAL		
Asexual spectrum	Asexual		
Asexual spectrum	Asexual		
Asexual spectrum	ASEXUAL		
Asexual spectrum	Asexual; panromantic (No sexual attraction, close romantic emotional attachment to any gender)		
Asexual spectrum	Asexual		
Asexual spectrum	Asexual, Pan-romantic.		
Asexual spectrum	demisexual		
Asexual spectrum	Panromantic asexual		
Asexual spectrum	asexual		
Asexual spectrum	Demisexual towards women but likes men		
Asexual spectrum	Asexual		
Asexual spectrum	Asexual		
Asexual spectrum	Asexual		
Asexual spectrum	Demisexual		
Asexual spectrum	Asexual		
Asexual spectrum	asexual		
Asexual spectrum	Demisexual		
Pansexual	Pansexual		
Pansexual	Pansexaul		
Pansexual	pansexual		

Pansexual	pansexual
Pansexual	Fluid
Pansexual	Pansexual
Pansexual	Lover of All
Pansexual	pansexual
Pansexual	Pansexual (loving without gender bias)
Pansexual	Pansexual
Pansexual	PANSEXUAL; DEMISEXUAL
Pansexual	Pansexual
Anti-label	just me
Anti-label	Neutral
Anti-label	DON'T LIKE LABELS ORIENTATION
Other	[left blank]
* N. 4 W/l	

<sup>\*</sup> Note: When a respondent provided two identity labels in their write-in response, the first label chosen was used for categorization purposes (e.g., "Lesbian and Same Gender Loving coded" as "Lesbian"). Four respondents selected "other," but did not provide a write in response. These respondents remain categorized as "other."

A second calculated variable (**w1sexminid**) was also included, in which respondents reporting a sexual minority identity were categorized into 1 of 3 categories: lesbian/gay (lesbian, gay), bisexual (bisexual), and other sexual minority identity (queer, pansexual,

same-gender loving, asexual spectrum, anti-label, other). 11 respondents identified as straight/heterosexual, and were recoded as missing for the w1sexminid variable.

Sexual identity was re-assessed at wave 2. Two variables (**w2sexualid** and **w2sexminid**) were created using the same approach described above.

#### Education.

Responses from the Gallup Daily Tracking Survey variable (**geducation**) were recategorized into two additional variables with fewer response options: **educ1** (high school or less, some college, college completed, more than college completed) and **educ2** (high school or less, more than high school).

Education was not re-assessed at wave 2.

# Geography. *Urbanicity*

Using respondents' zip codes, urbanicity scores were calculated using the USDA Rural-Urban Commuting Area coding system (USDA, 2013). RUCA scores are included in the dataset (variable: **gruca**). 2010 RUCA codes were used, and scores of 1-3 represent urban zip codes, while scores of greater than 3 represent non-urban zip codes. The variable, **gurban** was created using this scoring system.

23 respondents' zip codes did not have a corresponding RUCA code or corresponding urbanicity score. These 23 values were imputed using Predictive Mean Matching, described in detail in a later section. Both un-imputed (gruca, gurban) and imputed (gruca\_i, gurban\_i) versions of the variables are included in the dataset.

Urbanicity was not re-assessed at wave 2.

#### Census region and division

Using respondents' states of residence (gzipstate), respondents were assigned to their corresponding Census regions (gcenreg) and divisions (gcendiv) (US Census Bureau, 2015). There are 9 Census divisions:

- 1. New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)
- 2. Middle Atlantic (New Jersey, New York, Pennsylvania)
- 3. East North Central (Indiana, Illinois, Michigan, Ohio, Wisconsin)
- 4. West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota)
- 5. South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia)
- 6. East South Central (Alabama, Kentucky, Mississippi, Tennessee)
- 7. West South Central (Arkansas, Louisiana, Oklahoma, Texas)
- 8. Mountain (Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, Wyoming)

9. Pacific (Alaska, California, Hawaii, Oregon, Washington)

There are 4 corresponding Census regions:

- 1. Northeast (New England, Middle Atlantic regions)
- 2. Midwest (East North Central, West North Central regions)
- 3. South (South Atlantic, East South Central, West South Central regions)
- 4. West (Mountain, Pacific regions)

Census region and division were not re-assessed at wave 2.

#### Distance from an LGBT community health center

Distance from the respondents' residence to the nearest LGBT community health center (gmilesaway). This distance was calculated using geocoded health center data and respondents' zip codes (gzipcode), as described by Martos et al. (2017). A dichotomous variable (gmilesaway2) was created to differentiate between respondents living less than 60 miles away from the nearest LGBT health center and those living 60 or more miles away. A 60-mile distance was chosen arbitrarily to represent a practical travel distance of about 1-hour drive.

Distance from an LGBT community health center was not re-assessed at wave 2.

#### Poverty.

Using weighted Census estimates for poverty thresholds in 2016 and 2017 (US Census Bureau, 2018), respondents were categorized as either living in poverty (below 100% FPL) or not, based on the year they completed the Generations survey (2016 or 2017), their reported household income (w1hinc), and the reported number of people living on that household income (w1q173) (constructed variable: w1poverty)<sup>4</sup>. 32 respondents did not indicate the number of people living on their household income. Of them, 5 reported household incomes <\$11,999, and could be categorized as living below the 100% federal poverty line. The remaining 27 could not be categorized, and were recoded as missing.

Another variable was created (**w1povertycat**) using the same thresholds above, which categorized respondents into the following income ratio categories: <100% FPL, 100-199% FPL, 200-299% FPL, 300%+ FPL. 32 respondents did not indicate the number of people living on their household income. Of them, 5 reported household incomes >\$11,999, and could be categorized as living below the 100% federal poverty line. The remaining 27 could not be categorized, and were recoded as missing.

Poverty was not re-assessed at wave 2.

<sup>&</sup>lt;sup>4</sup> At the time the data were cleaned, 2018 poverty thresholds were not available. For the 29 respondents from the extended wave 1 sample who completed the Generations survey in 2018, their poverty statuses were calculated using 2017 poverty thresholds.

#### Sexual orientation change therapy.

Respondents reported their lifetime experiences receiving treatment to change their sexual orientations (w1q133: for respondents completing the survey by mail; w1q133\_1 - w1q133\_3: for respondents completing the survey by web). Three variables were calculated. First, respondents were coded dichotomously as having ever received such treatment or not (variable: w1conversion). Next, respondents were categorized according to the provider of the treatment: from a healthcare professional (variable: w1conversionhc) or from a religious leader (variable: w1conversionrel).

Exposure to sexual orientation change therapy was not re-assessed at wave 2.

#### **Scale creation**

Several items from the Generations study are part of validated scales, designed to measure constructs relevant to identity, stress, and health. Each of the scales within the Generations survey have been calculated from individual variables, according to published instructions, detailed below. The reliability of each scale was assessed with Cronbach's alpha (a), for the entire sample and then by sex at birth, cohort, and race/ethnicity, respectively. The reliability test scores are presented in Appendix 2. Two calculated variables are included in the dataset for each of the scales: an un-imputed version and an imputed version. The unimputed version has missing values for participants who were missing on one or more items that make up the scale. The imputed variable has no missing values. The steps taken to create each scale are described below.

Scale reliabilities (Cronbach's alpha) are presented in appendices 1 and 2.

#### Positive Health.

*Social Well-Being* assessed one's "appraisal of one's circumstances and functioning in society," and serves as a measure of one's "social wellness" (Keyes, 1998). Keyes (1998) Social Well-Being scale consists of 15 items (w1q04- w1q18; e.g. "I don't feel I belong to anything I'd call a community," "My community is a source of comfort," "I have something valuable to give to the world."), each rated on a 7-point Likert scale ranging from "strongly disagree" to "strongly agree." To create a scale variable, 8 of the 15 items (w1q04, w1q08, w1q11, w1q12, w1q14, w1q15, w1q16, w1q17) were reverse-coded then the scale was created as a mean score of each of the items within the scale. Lower values represent lower social well-being and higher values represent greater social well-being. Scale values range from 1 to 7.

There were two resulting variables: "w1socialwb" (calculated only from complete cases, in which no individual scale items were missing) and "w1socialwb\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Social well-being was re-assessed at wave 2. Two variables (**w2socialwb** and **w2socialwb** i) were created using the same approach described above.

Satisfaction with Life (Satisfaction with Life Scale, SWLS) assessed respondents' global satisfaction with life "as a cognitive-judgmental process" (Diener et al., 1985). The scale consisted of 5 items (w1q186- w1q190; e.g., "In most ways my life is close to ideal," "The conditions of my life are excellent," "I am satisfied with life."), each rated on a 7-point Likert scale ranging from "strongly disagree" to "strongly agree." The scale variable was created as a mean score of each of the items within the scale. Lower values represent less satisfaction with life and higher values represent greater satisfaction with life. Scale values range from 1 to 7.

There were two resulting variables: "w1lifesat" (calculated only from complete cases, in which no individual scale items were missing) and "w1lifesat\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Satisfaction with life was not re-assessed at wave 2.

#### Identity.

Multi-group Ethnic Identity was assessed using Phinney and Ong's (2007) revised Multi-group Ethnic Identity Measure (MEIM-R). MEIM-R assessed respondents' "investigation, learning, and commitment" to their race/ethnic identities (Phinney & Ong, 2007). The scale consisted of 6 items (w1q21- w1q26; e.g., "I have spent time trying to find out more about my race/ethnic group, such as its history, traditions, and customs," and "I have a strong sense of belonging to my own race/ethnic group." Each item was rated on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The scale variable was created as a mean score of each of the items within the scale. Lower values represent less investigation, learning, and commitment to one's own race/ethnic identity, and higher values represent greater investigation, learning, and commitment. Scale values range from 1 to 5.

There were two resulting variables: "w1meim" (calculated only from complete cases, in which no individual scale items were missing) and "w1meim\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Multi-group ethnic identity was not re-assessed at wave 2.

Sexual Identity Centrality, a 5-item subscale from Mohr and Kendra's (2011) 27-item Lesbian, Gay, and Bisexual Identity Scale (LGBIS), assessed the degree to which respondents' sexual identities were central to their overall identities. Scale items (w1q40-w1q44) included "my sexual orientation is an insignificant part of who I am" and "being an LGB person is a very important aspect of my life." Responses were recorded on a 6-point Likert scale ranging from "disagree strongly" to "agree strongly." To create a scale variable, 1 item (w1q40) was first reverse-coded. Next, the scale was created as a mean score of each of the items within the scale. Lower values represent lower centrality and higher values represent greater centrality. Scale values range from 1 to 6.

There were two resulting variables: "wlidcentral" (calculated only from complete cases, in which no individual scale items were missing) and "wlidcentral\_i" (missing

individual scale items were imputed, and a final scale score was calculated for each respondent).

Sexual identity centrality was re-assessed at wave 2. Two variables (**w2idcentral** and **w2idcentral** i) were created using the same approach described above.

Community connectedness, a 7-item scale adapted from the 8-item scale described by Frost & Meyer (2012), assessed the desire for and strength of LGBT community affiliation among respondents. Scale items (w1q53- w1q59) included "you feel you're a part of the LGBT community," and "you are proud of the LGBT community." Responses were recorded on a 4-item scale ranging from "agree strongly" to "disagree strongly." The scale variable was created as a mean score of each of the items within the scale. The final scale was reverse-coded so that lower scores represented lower community connectedness, while higher scores represented greater community connectedness. Scale values range from 1 to 4.

There were two resulting variables: "w1connectedness" (calculated only from complete cases, in which no individual scale items were missing) and "w1connectedness\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Community connectedness was re-assessed at wave 2. Two variables (**w2connectedness** and **w2connectedness\_i**) were created using the same approach described above.

#### Healthcare Access & Utilization.

Healthcare Stereotype Threat, a 4-item scale modified from Abdou & Fingerhut's (2014) measure, assessed the degree to which respondents worried about being negatively judged by or confirming stereotypes about LGBT people with healthcare providers. Scale items (w1q60- w1q63) included "I worry about being negatively judged because of my sexual orientation or gender identity," and "I worry that evaluations of me may be negatively affected by my sexual orientation or gender identity." Responses were recorded on a 5-point scale ranging from "strongly disagree" to "strongly agree." The scale was created as a mean score of each of the items within the scale. Lower values represent less worry about being judged or confirming LGBT stereotypes, and higher values represent greater worry. Scale values range from 1 to 5.

There were two resulting variables: "w1hcthreat" (calculated only from complete cases, in which no individual scale items were missing) and "w1hcthreat\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Healthcare Stereotype Threat was not re-assessed at wave 2.

#### **Health Outcomes.**

*Mental Disability* was assessed using the Kessler-6, a 6-item scale from the National Comorbidity Survey (SAMHSA, n.d.). Scale items (w1q77A-w1q77F) asked respondents how often, in the past 30 days, they had felt "nervous," "hopeless," "restless or fidgety," "so depressed that nothing could cheer you up," "that everything was an effort," and "worthless." Responses were recorded on a 5- point scale ranging from "all of the time" to "none of the time." All items were first reverse-coded so that "none of the time" had a value of 1 and "all of the time" had a value of 5. The scale was then created as the sum of all variables within the scale.

Per scale creation instructions, respondents failing to answer any single item in the scale were recorded as "missing," on the resulting scale score. In addition, an imputed version of the scale was calculated in which missing individual scale items were imputed, and a final scale score was calculated for each respondent.

The resulting scales, named "w1kessler6" and "w1kessler6\_i" had values ranging from 0 to 24.

Mental disability was re-assessed at wave 2. Two variables (**w2kessler6** and **w2kessler6** i) were created using the same approach described above.

Alcohol use was assessed using the Alcohol Use Disorder Identification Test (AUDIT-C), a 3-item scale designed to identify persons with hazardous drinking behavior, or who have active alcohol use disorders (Bush et al., 1998). The scale items (w1q85- w1q87) and available responses were "how often do you have a drink containing alcohol?" (never [0 points], monthly or less [1 point], 2-4 times a month [2 points], 2-3 times a week [3 points], 4 or more times a week [4 points]), "how many standard drinks containing alcohol do you have on a typical day?" (none [0 points], 1 or 2 [0 points], 3 or 4 [1 point], 5 or 6 [2 points], 7 to 9 [3 points], 10 or more [4 points]), and "how often do you have six or more drinks on one occasion?" (never [0 points], less than monthly [1 points], monthly [2 points], weekly [3 points], daily or almost daily [4 points]). The scale was then created as the sum of all variables in the scale. Per scale creation instructions, respondents failing to answer any single item in the scale were recorded as "missing," on the resulting scale score. In addition, an imputed version of the scale was calculated in which missing individual scale items were imputed, and a final scale score was calculated for each respondent.

The resulting scales, named "w1auditc," and "w1auditc\_i" had values ranging from 0 to 12.

Alcohol use was re-assessed at wave 2. Two variables (**w2auditc**and **w2auditc\_i**) were created using the same approach described above.

**Drug use** was assessed using the Drug Use Disorders Identification Test (DUDIT), an 11-item scale designed to identify individuals with drug- related problems (Berman et al., 2003). The scale was created as the sum of all variables (w1q90- w1q100) in the scale (see Table 7). Per scale creation instructions, respondents failing to answer any single

item in the scale were recorded as "missing," on the resulting scale score. In addition, an imputed version of the scale was calculated in which missing individual scale items were imputed, and a final scale score was calculated for each respondent.

The resulting scales, named "w1dudit," and "w1dudit\_i" had values ranging from 0 to 44.

Variable	Question Text	Response Options	Points
w1q90	How often do you use drugs other than	Never	0
	alcohol?	Once a month or less often	1
		2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q91	Do you use more than one type of drug	Never	0
	on the same occasion?	Once a month or less often	1
		2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q92	How many times do you take drugs on a	0	0
	typical day when you use drugs?	1-2	1
		3-4	2
		5-6	3
		7 or more	4
w1q93	How often are you influenced heavily by	Never	0
	drugs?	Once a month or less often	1
		2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q94	Over the past year, have you felt that	Never	0
	your longing for drugs was so strong	Once a month or less often	1
	that you could not resist it?	2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q95	Has it happened, over the past year,	Never	0
	that you have not been able to stop	Once a month or less often	1
	taking drugs once you get started?	2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q96	How often over the past year have you	Never	0
	taken drugs and then neglected to do	Once a month or less often	1
	something you should have done?	2-4 times a month	2

		2-3 times a week	3
		4 times a week or more often	4
w1q97	How often over the past year have you	Never	0
	needed to take a drug the morning	Once a month or less often	1
	after heavy drug use the day before?	2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q98	How often over the past year have you	Never	0
	had guilt feelings or a bad conscience because you used drugs?	Once a month or less often	1
		2-4 times a month	2
		2-3 times a week	3
		4 times a week or more often	4
w1q99	Have you or anyone else been hurt	No	0
	(mentally or physically) because you	Yes, but not over the past year	2
	used drugs?	Yes, over the past year	4
w1q100	Has a relative or a friend, a doctor or a	No	0
	nurse, or anyone else, been worried about your drug use or said to you that you should stop using drugs?	Yes, but not over the past year	2
,		Yes, over the past year	4

Drug use was re-assessed at wave 2. Two variables (**w2dudit** and **w2dudit\_i**) were created using the same approach described above.

#### Stressors.

Felt stigma assessed respondents' awareness and experiences of sexual minority-related stress (Herek, 2008). Scale items (w1q125- w1q127) were "most people where I live think less of a person who is LGB," "most employers where I live will hire openly LGB people if they are qualified for the job," and "most people where I live would not want someone who is openly LGB to take care of their children." Responses were recorded on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." 1/3 items (w1q126) was reverse coded, then the scale was created as a mean score of each of the items within the scale. Lower values represent less felt stigma, and higher values represent greater felt stigma. Scale values range from 1 to 5.

There were two resulting variables: "w1feltstigma" (calculated only from complete cases, in which no individual scale items were missing) and "w1feltstigma\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Felt stigma was re-assessed at wave 2. Two variables (**w2feltstigma** and **w2feltstigma\_i**) were created using the same approach described above.

*Internalized homophobia* assessed the degree to which respondents accept stigma as a part of their own value systems (Herek et al., 2009). Scale items (w1q128- w1q132) included "I have tried to stop being attracted to people who are the same sex as me," "I wish I weren't LGB," and "I feel that being LGB is a personal shortcoming for me."

Responses were recorded on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The scale was created as a mean score of each of the items within the scale. Lower values represent less internalized homophobia and higher values represent greater internalized homophobia. Scale values range from 1 to 5.

There were two resulting variables: "w1internalized" (calculated only from complete cases, in which no individual scale items were missing) and "w1internalized\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Internalized homophobia was re-assessed at wave 2. Two variables (**w2internalized** and **w2internalized** i) were created using the same approach described above.

Bisexual stigma assessed the degree to which bisexual-identified respondents were aware of stigma directed towards members of the bisexual community (Bostwick, 2012). Four items (w2q117 – w2q120) assessed bisexual stigma consciousness. Respondents were asked to rate their agreement with each of four statements: "I worry that my behaviors will be viewed as stereotypically bisexual," "Stereotypes about bisexuals affect me," "Most lesbians/gays have a problem with bisexuals," and "Most heterosexuals have a problem with bisexuals." Responses were recorded on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The scale was created as a mean score of each of the items within the scale. Lower values represent less stigma consciousness and higher values represent greater stigma consciousness. Scale values range from 1 to 5.

There were two resulting variables: "w2bistigma" (calculated only from complete cases, in which no individual scale items were missing) and "w2bistigma\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

A fifth item (w2q121) assessed perceived contestation of one's bisexual identity: I feel that others view my bisexual identity as "untrue" or not real.

Bisexual stigma was only assessed at wave 2.

Everyday discrimination assessed chronic, relatively minor experiences of discrimination or unfair treatment (Williams et al., 1997). Scale items (w1q144A- w1q144I) asked respondents who often the following things happened to them over the past year, including "you were treated with less courtesy than other people," "you were treated with less respect than other people," "and you were called names or insulted." Responses were recorded on a 4-point Likert scale ranging from "often" to "never." The scale was created as a mean score of each of the items within the scale. The resulting variable was reverse-coded so that lower values represent less everyday discrimination and higher values represent more everyday discrimination. Scale value range from 1 to 4.

There were two resulting variables: "w1everyday" (calculated only from complete cases, in which no individual scale items were missing) and "w1everyday i" (missing

individual scale items were imputed, and a final scale score was calculated for each respondent).

Everyday discrimination was re-assessed at wave 2. Two variables (**w2everyday** and **w2everyday i**) were created using the same approach described above.

Chronic strains (Wheaton, 1999, abridged version). Scale items (w1q146A-w1q146L) asked respondents to think about their lives currently, and to determine whether several statements = were not true, somewhat true, or very true. A "does not apply" response option was also provided. Questions included "you're trying to take on too many things at once," "your job often leaves you feeling both mentally and physically tired," "and you are alone too much." The scale was created as a mean score of each of the items within the scale. Lower values represent lower chronic stress and higher values represent higher chronic stress. Scale values range from 1 to 3.

There were two resulting variables: "w1chronic" (calculated only from complete cases, in which no individual scale items were missing) and "w1chronic\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Chronic strains was re-assessed at wave 2. Two variables (**w2chronic** and **w2chronic\_i**) were created using the same approach described above.

Childhood gender conformity (Zucker et al., 2006). Scale items (w1q147-w1q150) included "as a child, my favorite toys and games were...," and "as a child, the characters on TV or in the movies that I imitated or admired were..." Response were recorded on a 5-point scale, with the wording of response options varying according to the question, but all ranged from "masculine" (e.g., 1= "always 'masculine," "always boys or men") to "feminine" (e.g., 5= "always 'feminine," "always girls or women"). "Neither" and "not applicable" responses were set as missing. A preliminary score was assigned to each participant, and was calculated the mean score of all the values present within the scale for each individual. A final categorical score was then calculated for each participant, based on their sex at birth (male/female), using cutoff scores described in the table below. The resulting variable for the scale was named "w1childgnc." In addition, an imputed version of the scale was calculated in which missing individual scale items were imputed, and a final scale score was calculated for each respondent in the same manner (w1childgnc\_i).

Table 8. Cutoff scores used to calculate w1childgnc			
	Lower cutoff	Upper cutoff	
90th percentile or greater	Females: 1.00	Females: 2.00	
(most gender non-	Males: 3.66	Males: 5.00	
conforming in childhood)			
Between 50th percentile and	Females: 2.01	Females: 3.00	
90th percentile	Males: 2.33	Males: 3.65	
Less than 50th percentile	Females: 3.01	Females: 5.00	
(least gender non-	Males: 1.00	Males: 2.32	
conforming in childhood)			

Childhood gender conformity was not re-assessed at wave 2.

Adverse childhood experiences (ACE) (CDC-BRFSS, 2010). Scale items (w1q151w1q161) asked respondents to "look back before you were 18 years of age." and included items such as "did you live with anyone who was depressed, mentally ill, or suicidal," and "how often did your parents or adults in your home ever slap, hit, kick, punch, or beat each other up?" Available response options ranged from dichotomous (yes/no) to 3-point Likert scales (never to more than once), depending on the question. "Don't know/not sure" and "refused" answer options were also available to respondents, where appropriate. To create a summary ACE score, all items were dichotomoized (1= yes, event occurred at least once vs. 0=no, event never occurred) if not already dichotomized. Per published instruction (CDC, 2016), 8 subscores were created from the existing 11 items: presence of emotional abuse (wlace emo: w1q158), physical abuse (wlace phy: wlq157), sexual abuse (wlace sex: wlq159, wlq160, wlq161), household intimate partner violence (wlace ipv: wlq156), household substance use (wlace sub: w1q152, w1q153), household mental illness (w1ace men: w1q151), parental separation or divorce (wlace sep: w1q155), incarcerated household member (wlace inc: w1q154). A resulting final score was created as a sum score indicating the number of adverse childhood experiences respondents reported during childhood. Scale values for the resulting ACE measure (wlace) range from 0 to 8. Respondents indicating "don't know" or "refused" on any single scale item were recorded as missing for that subscore(s), and the subsequent final score.

Missing individual scale items were also imputed using predictive mean matching, and individual subscores and the final scale score was calculated for each respondent (wlace, wlace\_emo\_i, wlace\_phy\_i, wlace\_sex\_i, wlace\_ipv\_i, wlace\_sub\_i, wlace\_men\_i, wlace\_sep\_i, wlace\_inc\_i).

Adverse childhood experiences were not re-assessed at wave 2.

#### Social support.

Social support was assessed utilizing the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). Scale items (w1q164A- w1q164L) asked respondents to rate their levels of agreement with several items, including "there is a special person who is around when I am in need," and "my family really tries to help me." Responses were recorded on a 7-point scale ranging from "very strongly disagree" to "very strongly agree." The scale was created as a mean score of each of the items within the scale. Lower values represent less perceived social support and higher values represent more perceived social support. Scale values range from 1 to 7.

There were two resulting variables: "wlsocsupport" (calculated only from complete cases, in which no individual scale items were missing) and "wlsocsupport\_i" (missing individual scale items were imputed, and a final scale score was calculated for each respondent).

Additionally, 3 subscales were created, representing perceived social support from significant others (w1socsupport\_so and w1socsupport\_so\_i, w1q164A, B, E, J), family (w1socsupport\_fam and w1socsupport\_fam\_i, w1q164C, D, H, K), and friends (w1socsupport\_fr and w1socsupport\_fr\_i, w1q164F, G, I, L). Each subscale was similarly created as a mean score of each of the items within the subscale. Lower values represent less perceived social support and higher values represent more perceived social support. Subscale values range from 1 to 7.

Social support was re-assessed at wave 2. Eight variables (w2socsupport, w2socsupport \_i, w2socsupport\_so\_i, w2socsupport\_fam, w2socsupport\_fam\_i, w2socsupport\_fr, w2socsupport\_fr\_i) were created using the same approach described above.

# **Missing Data and Imputation Baseline survey**

When possible, missing values on demographic characteristics were assigned from other known sources. (See Appendices 3 & 4 for missing values in the baseline and wave 2 datasets, respectively).

- 19 respondents were missing an age on the Generations survey (w1age). All 19 were assigned the age reported to Gallup on the Gallup survey.
- 18 respondents were missing a race on the Generations survey (w1race). All 18 were assigned the age reported on the Gallup screen.
- 22 respondents were missing a sex at birth on the Generations survey (w1sex). All 22 were assigned the age reported to Gallup on the Gallup survey.
- 13 respondents were missing a sexual identity on the Generations survey (w1sexualid). All 13 were assigned the age reported on the Gallup screen.
- 15 respondents were missing a current gender identity on the Generations survey (w1gender). Of them, 10 could be assigned using the gender reported on the Gallup screen. The remaining 5 were assigned the gender that corresponded to their sex at birth (e.g., "male" sex at birth was coded as "man" gender identity).
- 39 respondents were missing a household income. Of them, 23 could be assigned the <u>household income</u> reported to Gallup on the Gallup survey.

For the remaining missing values, we did a single imputation by chained equations (fully conditional specification), using predictive mean matching (Little, 1988) to draw the imputed values. With predictive mean matching, regression is used to predict the missing value, and then a single value is randomly selected from the k observed values nearest to the predicted missing value from a donor pool of complete observations. We used donor pools of size k=5 according to Heitjan and Little (1991). When doing imputation by chained equations, each of the imputed variables serve as predictors in the imputation regression models for all other imputed variables. Additionally, age, race/ethnicity, and sex at birth, completed through other sources, were included in the imputation models to improve matching.

Predictive mean matching can be considered a more general form of hot-deck imputation, in which missing values are imputed by matching non-respondents to respondents only through categorical predictors. These matching-imputation methods are attractive because they recreate distributions well by using observed values for imputations and because they are somewhat more robust to misspecification of the imputation model (e.g. normality assumption violation) than parametric imputation methods (Morris et al., 2014). For each of the variables that were imputed, both the original/un-imputed and imputed versions are available in the dataset.

- The remaining 16 (out of 39) respondents with a missing <u>household income</u> were imputed using Predictive Mean Matching.
- 41 respondents were missing a personal income. All 41 were imputed using Predictive Mean Matching.

#### Wave 2 survey

- 5 respondents were missing a sexual identity on the Generations survey (w2sexualid). All 5 were assigned the age reported on the Gallup screen.
- 7 respondents were missing a current gender identity on the Generations survey (w2gender). All 7 were assigned a gender consistent with the gender reported at wave 1.

### Sample weight

Final sample weights are available for use with the data. When applied, results from analyses are generalizable to the U.S. population of LGB adults ages 18-25, 34-41, and 52-59 during data collection. The two sample weights associated with the baseline survey are: **w1weight\_full** and **w1weight\_orig**. w1weight\_full is to be used for analyses using the full sample (original plus extended sample). w1weight\_orig is only to be used for analyses using the original sample only

One sample weight is associated with the wave 2 survey: w2weight.

There are no stratification or cluster weights.

- Cross-sectional analyses using wave 1 data should use the appropriate wave 1 weight.
- Cross-sectional analysis using wave 2 data should use the wave 2 weight.
- Longitudinal analyses using both waves 1 and 2 datasets should use the wave 2 weight.

In Stata, the sample weight can be applied to analyses using the "svy" command. To register the survey design of the data for analysis, use the following command: svyset \_n [pweight=(NAME OF WEIGHT)]

Finally, Gallup created the weights in a step-wise fashion, described below. Interim weights (wlint\_cumulative\_wt\_nrl, wlint\_cumulative\_wt\_nr2, wlint cumulative wt nr3, wlint cumulative wt sampling, wlint frame wt,

wlint\_weighting\_cell\_nr1, wlint\_weighting\_cell\_nr2and3) also available in the dataset, but are not to be used for analysis.

#### Base Weights:

The base weights for this study were calculated for the Daily Tracking Frame for the timeframe included in this study in multiple stages. The entire frame, selected as an RDD sample, was initially weighted to represent 18+ US population. The weighting process accounted for multiple stages of selection and non-response.

#### Non-Response Stage 1:

The first stage of non-response accounted for respondents agreeing to be re- contacted by Gallup for follow-up studies. Non-response adjustment cells were created based on demographic characteristics defined as Hispanic x Region x Age x Gender x Education. For nonresponse adjustments, the inverse of weighted response rates (weighted by base weight) for each cell was used as the non-response adjustment factor.

#### Non-Response Stage 2:

The second stage of non-response accounted for respondents who were deemed eligible for the LGB study agreeing to be re-contacted for this study. Non-response adjustment cells were created based on demographic characteristics defined as Age x Gender x Region x Education. For nonresponse adjustments, the inverse of weighted response rates (weighted by cumulative weight) for each cell was used as the non-response adjustment factor. All respondents who agreed to participate in the study at this stage were sampled so every eligible person had an equal selection probability.

#### Non-Response Stage 3:

The third and final stage of non-response accounted for respondents who were sampled and did not complete the survey. Non-response adjustment cells were created based on demographic characteristics defined as Age x Gender x Region x Education. For nonresponse adjustments, the inverse of weighted response rates (weighted by cumulative weight) for each cell was used as the non-response adjustment factor. The Final AAPOR response rate for the study was 4.7%.

#### Post Stratification Adjustment:

The final step was a post-stratification adjustment to targets for the LGBT community obtained from weighted estimates using the Gallup Daily Tracking surveys. Non-Response Adjusted Weights were post-stratified to targets for LGBT population were created for age, gender, education, race/ethnicity and region.

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# **Appendices**

**Appendix 1: Information Sheet (Beginning with Wave 3 Survey)** 

## Identity Stress and Health in Three Cohorts of LGB individuals

## **Consent Information Sheet Generations Study**

The *Generations* survey is the first long-term, five-year study to examine the health and well-being of lesbians, gay men, and bisexuals (LGB) across three generations. The survey explores identity, stress, health outcomes, and health care among LGBs from different age groups.

You were selected as a participant in this survey because you are 18 years or older and because you recently told Gallup you were willing to participate in this study. Your participation in this research survey is completely voluntary and you can skip any question you do not want to answer. Your participation in this survey is completely anonymous.

The information you provide will be kept confidential and will be kept separate from your identifying information including your name, email address, or home address. Information will only be reported in the aggregate.

Information about you is protected by a federal Certificate of Confidentiality. This means that we can't be forced to release information about you for any legal proceeding, even if a court of law asks.

The Certificate allows us to use information about you for purposes of this research, or to disclose it for other research when allowed by law. The Certificate requires other researchers to also protect information we share with them.

There are limits to this protection. The Certificate does not protect your information when:

- You or your family voluntarily release information about yourselves.
- You consent to release of information (for example, the uses described in this form or if you sign release forms for employment, insurance or medical care).
- A federal agency audits or evaluates research that it funds.

  As a token of our appreciation you will receive \$25 for your participation in this survey.

If you have any questions about this research, may contact the survey's primary investigator, Dr. Ilan Meyer at <a href="mayer@law.ucla.edu">meyer@law.ucla.edu</a>, call (310) 825-7270, or write to him at The Williams Institute UCLA School of Law, Box 951476, Los Angeles, CA 90095.

#### **UCLA Office of the Human Research Protection Program (OHRPP):**

If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.

Appendix 2: Wave 1 Scale reliability (Cronbach's a) by total sample, sex at birth, cohort, race/ethnicity

Scale	Total Sample	Sex at Birth Cohort		Race/Ethnicity					
		Female	Male	Younger	Middle	Older	White	Black/ African American	Latino/ Hispanic
Multi-Group Ethnic Identity	0.86	0.86	0.86	0.87	0.85	0.83	0.82	0.83	0.88
Sexual Identity Centrality	0.81	0.83	0.80	0.80	0.80	0.84	0.84	0.74	0.75
Community Connectedness	0.86	0.87	0.86	0.85	0.86	0.87	0.86	0.85	0.86
Healthcare Stereotype Threat	0.90	0.89	0.91	0.90	0.90	0.91	0.91	0.90	0.89
Mental Disability	0.89	0.89	0.88	0.86	0.87	0.89	0.89	0.88	0.89
Alcohol Use	0.67	0.65	0.69	0.70	0.66	0.68	0.66	0.75	0.69
Drug Use	0.85	0.85	0.85	0.85	0.87	0.81	0.84	0.86	0.86
Felt Stigma	0.70	0.69	0.71	0.71	0.73	0.67	0.74	0.63	0.63
Internalized Homophobia	0.75	0.73	0.76	0.76	0.76	0.73	0.74	0.77	0.75
Everyday Discrimination	0.91	0.91	0.91	0.90	0.91	0.90	0.90	0.91	0.90
Chronic Strains	0.64	0.66	0.61	0.64	0.64	0.57	0.63	0.62	0.67
Childhood Gender Conformity	0.75	0.75	0.71	0.75	0.78	0.71	0.72	0.81	0.76
Adverse Childhood Experiences	0.77	0.79	0.74	0.76	0.81	0.75	0.77	0.76	0.75
Social Support	0.93	0.92	0.93	0.91	0.93	0.94	0.93	0.92	0.92
Social Well-Being	0.81	0.81	0.81	0.80	0.80	0.83	0.83	0.77	0.78
Satisfaction with Life	0.91	0.90	0.91	0.88	0.91	0.92	0.91	0.88	0.88

Appendix 3: Wave 2 Scale reliability (Cronbach's a) by total sample, sex at birth, cohort, race/ethnicity

Scale	Total Sample	Sex at Birth		Cohort			Race/Ethnicity		
		Female	Male	Younger	Middle	Older	White	Black/ African American	Latino/ Hispanic
Sexual Identity Centrality	0.85	0.86	0.85	0.88	0.81	0.84	0.87	0.77	0.81
Community Connectedness	0.86	0.85	0.86	0.86	0.84	0.87	0.86	0.85	0.85
Mental Disability	0.89	0.89	0.87	0.86	0.89	0.87	0.89	0.88	0.88
Alcohol Use	0.71	0.71	0.71	0.68	0.74	0.72	0.72	0.76	0.60
Drug Use	0.86	0.87	0.86	0.87	0.90	0.82	0.87	0.82	0.87
Felt Stigma	0.74	0.74	0.73	0.73	0.75	0.73	0.74	0.74	0.71
Internalized Homophobia	0.78	0.77	0.79	0.78	0.77	0.79	0.77	0.80	0.77
Bisexual Stigma Consciousness (among bisexual respondents)	0.77	0.78	0.73	0.79	0.72	0.81	0.79	0.71	0.73
Everyday Discrimination	0.91	0.90	0.91	0.90	0.92	0.89	0.90	0.91	0.92
Chronic Strains	0.65	0.66	0.63	0.63	0.67	0.58	0.63	0.72	0.64
Social Support	0.91	0.91	0.91	0.90	0.93	0.91	0.92	0.91	0.87
Social Well-Being	0.81	0.80	0.81	0.77	0.82	0.83	0.81	0.74	0.82

Appendix 3: Missing values for each variable in Wave 1 dataset.

Appendix 5: Missin	ig values for each va	ariable ili wave i	
			Percent
Variable	Missing	Total	Missing
studyid	0	1,518	0
w1weight_f~l	0	1,518	0
w1weight_o~g	187	1,518	12.32
w1survey_yr	0	1,518	0
cohort	0	1,518	0
geduc1	0	1,518	0
geduc2	0	1,518	0
geducation	0	1,518	0
gemploy~2010	64	1,518	4.22
gmethod_type	0	1,518	0
gmsaname	0	1,518	0
gp1	98	1,518	6.46
gruca	22	1,518	1.45
gruca_i	0	1,518	0
gurban	22	1,518	1.45
gurban i	0	1,518	0
gzipcode	14	1,518	0.92
gzipstate	0	1,518	0
gcendiv	0	1,518	0
gcenreg	0	1,518	0
gmilesaway	18	1,518	1.19
gmilesaway2	18	1,518	1.19
w1q01	16	1,518	1.05
w1q02	60	1,518	3.95
w1q03	48	1,518	3.16
w1q04	13	1,518	0.86
w1q05	13	1,518	0.86
w1q06	14	1,518	0.92
w1q07	15	1,518	0.99
w1q08	19	1,518	1.25
w1q09	17	1,518	1.12
w1q10	17	1,518	1.12
w1q11	14	1,518	0.92
w1q12	17	1,518	1.12
w1q13	17	1,518	1.12
w1q14	21	1,518	1.38
w1q15	18	1,518	1.19
4-0	10	1,510	1.17

w1q16	16	1,518	1.05
w1q17	18	1,518	1.19
w1q18	22	1,518	1.45
w1q190	15	1,518	0.99
w1q19a	18	1,518	1.19
w1q19b	19	1,518	1.25
w1q19c	30	1,518	1.98
w1q19d	24	1,518	1.58
w1q20_1	1,482	1,518	97.63
w1q20 2	1,262	1,518	83.14
w1q20_3	1,238	1,518	81.55
w1q20 4	1,504	1,518	99.08
w1q20_5	1,509	1,518	99.41
w1q20_6	393	1,518	25.89
w1q20_7	1,466	1,518	96.57
w1q20_t_verb	0	1,518	0
w1q21	15	1,518	0.99
w1q22	19	1,518	1.25
w1q23	19	1,518	1.25
w1q24	22	1,518	1.45
w1q25	18	1,518	1.19
w1q26	18	1,518	1.19
w1q27	22	1,518	1.45
w1q28	15	1,518	0.99
w1q29	13	1,518	0.86
w1q29_t_verb	0	1,518	0
w1q30_1	848	1,518	55.86
w1q30_2	508	1,518	33.47
w1q30_3	1,474	1,518	97.1
w1q30_4	1,469	1,518	96.77
w1q30_5	1,361	1,518	89.66
w1q31a	28	1,518	1.84
w1q31b	23	1,518	1.52
w1q31c	47	1,518	3.1
w1q31d	43	1,518	2.83
w1q32	19	1,518	1.25
w1q33	601	1,518	39.59
w1q34	595	1,518	39.2
w1q35	597	1,518	39.33
w1q36	596	1,518	39.26
w1q37	13	1,518	0.86

w1q38	11	1,518	0.72
w1q39_1	1,367	1,518	90.05
w1q39_2	1,388	1,518	91.44
w1q39_3	1,374	1,518	90.51
w1q39_4	1,370	1,518	90.25
w1q39_5	1,402	1,518	92.36
w1q39_6	1,440	1,518	94.86
w1q39_7	1,462	1,518	96.31
w1q39_8	1,300	1,518	85.64
w1q39_9	1,307	1,518	86.1
w1q39_10	1,149	1,518	75.69
w1q39_11	979	1,518	64.49
w1q39_12	1,456	1,518	95.92
w1q40	15	1,518	0.99
w1q41	15	1,518	0.99
w1q42	12	1,518	0.79
w1q43	17	1,518	1.12
w1q44	14	1,518	0.92
w1q45	71	1,518	4.68
w1q46	206	1,518	13.57
w1q47	346	1,518	22.79
w1q48	71	1,518	4.68
w1q49	119	1,518	7.84
w1q50	277	1,518	18.25
w1q51	711	1,518	46.84
w1q52	23	1,518	1.52
w1q53	14	1,518	0.92
w1q54	30	1,518	1.98
w1q55	20	1,518	1.32
w1q56	20	1,518	1.32
w1q57	22	1,518	1.45
w1q58	18	1,518	1.19
w1q59	15	1,518	0.99
w1q60	15	1,518	0.99
w1q61	21	1,518	1.38
w1q62	20	1,518	1.32
w1q63	19	1,518	1.25
w1q64_1	1,397	1,518	92.03
w1q64_2	982	1,518	64.69
w1q64_3	1,417	1,518	93.35
w1q64_4	1,131	1,518	74.51

w1q64_5	1,507	1,518	99.28
w1q64 6	1,429	1,518	94.14
w1q64_7	1,471	1,518	96.9
w1q64_8	1,447	1,518	95.32
w1q64 9	1,326	1,518	87.35
w1q64_10	1,494	1,518	98.42
w1q64_11	1,498	1,518	98.68
w1q64 12	1,518	1,518	100
w1q64_13	1,473	1,518	97.04
w1q64_t_verb	0	1,518	0
w1q65	24	1,518	1.58
w1q66_1	1,021	1,518	67.26
w1q66_2	682	1,518	44.93
w1q66_3	1,333	1,518	87.81
w1q66_4	1,426	1,518	93.94
w1q66_5	1,452	1,518	95.65
w1q67	29	1,518	1.91
w1q68_1	1,125	1,518	74.11
w1q68_2	1,348	1,518	88.8
w1q68_3	444	1,518	29.25
w1q69	21	1,518	1.38
w1q70	20	1,518	1.32
w1q71	185	1,518	12.19
w1q72	123	1,518	8.1
w1q73	171	1,518	11.26
w1q74_1	1,184	1,518	78
w1q74_2	1,219	1,518	80.3
w1q74_3	1,448	1,518	95.39
w1q74_4	1,511	1,518	99.54
w1q74_5	1,504	1,518	99.08
w1q74_6	1,504	1,518	99.08
w1q74_7	1,509	1,518	99.41
w1q74_8	1,257	1,518	82.81
w1q74_9	1,437	1,518	94.66
w1q74_10	1,443	1,518	95.06
w1q74_11	1,429	1,518	94.14
w1q74_12	1,400	1,518	92.23
w1q74_13	1,322	1,518	87.09
w1q74_14	1,486	1,518	97.89
w1q74_15	1,483	1,518	97.69
w1q74_16	1,388	1,518	91.44

w1q74 17	1,484	1,518	97.76
w1q74_18	1,490	1,518	98.16
w1q74_19	1,500	1,518	98.81
w1q74_20	1,499	1,518	98.75
w1q74 21	1,441	1,518	94.93
w1q74_22	1,333	1,518	87.81
w1q74 23	1,176	1,518	77.47
w1q75	23	1,518	1.52
w1q76	18	1,518	1.19
w1q77a	10	1,518	0.66
w1q77b	19	1,518	1.25
w1q77c	14	1,518	0.92
w1q77d	13	1,518	0.86
w1q77e	17	1,518	1.12
w1q77f	13	1,518	0.86
w1q78	22	1,518	1.45
w1q79	19	1,518	1.25
w1q80	184	1,518	12.12
w1q81	166	1,518	10.94
w1q82	85	1,518	5.6
w1q83	17	1,518	1.12
w1q84	15	1,518	0.99
w1q85	14	1,518	0.92
w1q86	11	1,518	0.72
w1q87	12	1,518	0.79
w1q88	16	1,518	1.05
w1q89	849	1,518	55.93
w1q90	19	1,518	1.25
w1q91	20	1,518	1.32
w1q92	23	1,518	1.52
w1q93	24	1,518	1.58
w1q94	15	1,518	0.99
w1q95	17	1,518	1.12
w1q96	24	1,518	1.58
w1q97	21	1,518	1.38
w1q98	22	1,518	1.45
w1q99	22	1,518	1.45
w1q100	19	1,518	1.25
w1q101	18	1,518	1.19
w1q102	1,220	1,518	80.37
w1q103	765	1,518	50.4

w1q104	765	1,518	50.4
w1q105	20	1,518	1.32
w1q106	1,234	1,518	81.29
w1q107	1,220	1,518	80.37
w1q108	1,225	1,518	80.7
w1q109	27	1,518	1.78
w1q110	1,192	1,518	78.52
w1q111	1,012	1,518	66.67
w1q112	1,038	1,518	68.38
w1q113	19	1,518	1.25
w1q114	1,154	1,518	76.02
w1q115	1,268	1,518	83.53
w1q116	1,407	1,518	92.69
w1q117	1,407	1,518	92.69
w1q118	1,152	1,518	75.89
w1q119	26	1,518	1.71
w1q120	1,371	1,518	90.32
w1q121	1,102	1,518	72.6
w1q122	1,101	1,518	72.53
w1q123a	15	1,518	0.99
w1q123b	14	1,518	0.92
w1q123c	18	1,518	1.19
w1q123d	19	1,518	1.25
w1q124	14	1,518	0.92
w1q125	14	1,518	0.92
w1q126	14	1,518	0.92
w1q127	15	1,518	0.99
w1q128	15	1,518	0.99
w1q129	15	1,518	0.99
w1q130	16	1,518	1.05
w1q131	17	1,518	1.12
w1q132	14	1,518	0.92
w1q133	1,206	1,518	79.45
w1q133_1	420	1,518	27.67
w1q133_2	1,488	1,518	98.02
w1q133_3	1,445	1,518	95.19
w1q134	1,412	1,518	93.02
w1q135a	15	1,518	0.99
w1q135b	18	1,518	1.19
w1q135c	18	1,518	1.19
w1q135d	20	1,518	1.32

w1q135e	18	1,518	1.19
w1q135f	16	1,518	1.05
w1q136_1	1,314	1,518	86.56
w1q136_2	1,122	1,518	73.91
w1q136_3	1,513	1,518	99.67
w1q136_4	1,327	1,518	87.42
w1q136_5	1,348	1,518	88.8
w1q136_6	1,387	1,518	91.37
w1q136_7	1,007	1,518	66.34
w1q136_8	1,181	1,518	77.8
w1q136_9	1,455	1,518	95.85
w1q136_10	1,464	1,518	96.44
w1q137	17	1,518	1.12
w1q138	17	1,518	1.12
w1q139_1	1,377	1,518	90.71
w1q139_2	1,383	1,518	91.11
w1q139_3	1,516	1,518	99.87
w1q139_4	1,447	1,518	95.32
w1q139_5	1,449	1,518	95.45
w1q139_6	1,423	1,518	93.74
w1q139_7	1,345	1,518	88.6
w1q139_8	1,424	1,518	93.81
w1q139_9	1,494	1,518	98.42
w1q139_10	1,451	1,518	95.59
w1q140	18	1,518	1.19
w1q141_1	1,512	1,518	99.6
w1q141_2	1,511	1,518	99.54
w1q141_3	1,517	1,518	99.93
w1q141_4	1,514	1,518	99.74
w1q141_5	1,512	1,518	99.6
w1q141_6	1,504	1,518	99.08
w1q141_7	1,508	1,518	99.34
w1q141_8	1,515	1,518	99.8
w1q141_9	1,517	1,518	99.93
w1q141_10	1,515	1,518	99.8
w1q142a	17	1,518	1.12
w1q142b	18	1,518	1.19
w1q142c	15	1,518	0.99
w1q142d	24	1,518	1.58
w1q142e	18	1,518	1.19
w1q142f	18	1,518	1.19

w1q142g	21	1,518	1.38
w1q142h	19	1,518	1.25
w1q142i	22	1,518	1.45
w1q142j	18	1,518	1.19
w1q142k	17	1,518	1.12
w1q143_1	1,321	1,518	87.02
w1q143_2	1,332	1,518	87.75
w1q143 3	1,514	1,518	99.74
w1q143_4	1,451	1,518	95.59
w1q143_5	1,423	1,518	93.74
w1q143_6	1,308	1,518	86.17
w1q143_7	1,341	1,518	88.34
w1q143_8	1,394	1,518	91.83
w1q143_9	1,481	1,518	97.56
w1q143_10	1,433	1,518	94.4
w1q144a	14	1,518	0.92
w1q144b	14	1,518	0.92
w1q144c	17	1,518	1.12
w1q144d	21	1,518	1.38
w1q144e	16	1,518	1.05
w1q144f	20	1,518	1.32
w1q144g	17	1,518	1.12
w1q144h	18	1,518	1.19
w1q144i	14	1,518	0.92
w1q145_1	1,122	1,518	73.91
w1q145_2	1,054	1,518	69.43
w1q145_3	1,510	1,518	99.47
w1q145_4	1,309	1,518	86.23
w1q145_5	1,225	1,518	80.7
w1q145_6	1,273	1,518	83.86
w1q145_7	1,096	1,518	72.2
w1q145_8	1,135	1,518	74.77
w1q145_9	1,441	1,518	94.93
w1q145_10	1,418	1,518	93.41
w1q146a	75	1,518	4.94
w1q146b	85	1,518	5.6
w1q146c	288	1,518	18.97
w1q146d	370	1,518	24.37
w1q146e	446	1,518	29.38
w1q146f	580	1,518	38.21
w1q146g	76	1,518	5.01

w1q146h	316	1,518	20.82
w1q146i	222	1,518	14.62
w1q146j	203	1,518	13.37
w1q146k	319	1,518	21.01
w1q1461	488	1,518	32.15
w1q147	99	1,518	6.52
w1q148	149	1,518	9.82
w1q149	127	1,518	8.37
w1q150	200	1,518	13.18
w1q151	20	1,518	1.32
w1q152	19	1,518	1.25
w1q153	21	1,518	1.38
w1q154	22	1,518	1.45
w1q155	16	1,518	1.05
w1q156	139	1,518	9.16
w1q157	61	1,518	4.02
w1q158	91	1,518	5.99
w1q159	76	1,518	5.01
w1q160	81	1,518	5.34
w1q161	77	1,518	5.07
w1q162	19	1,518	1.25
w1q163_1	1,284	1,518	84.58
w1q163_2	1,217	1,518	80.17
w1q163_3	1,515	1,518	99.8
w1q163_4	1,210	1,518	79.71
w1q163_5	1,339	1,518	88.21
w1q163_6	1,321	1,518	87.02
w1q163_7	1,122	1,518	73.91
w1q163_8	761	1,518	50.13
w1q163_9	1,443	1,518	95.06
w1q163_10	1,449	1,518	95.45
w1q164a	19	1,518	1.25
w1q164b	23	1,518	1.52
w1q164c	22	1,518	1.45
w1q164d	19	1,518	1.25
w1q164e	21	1,518	1.38
w1q164f	20	1,518	1.32
w1q164g	23	1,518	1.52
w1q164h	18	1,518	1.19
w1q164i	21	1,518	1.38
w1q164j	21	1,518	1.38

w1q164k	22	1,518	1.45
w1q1641	21	1,518	1.38
w1q165	19	1,518	1.25
w1q166	21	1,518	1.38
w1q167	21	1,518	1.38
w1q168	17	1,518	1.12
w1q169	16	1,518	1.05
w1q170_1	1,362	1,518	89.72
w1q170_2	1,488	1,518	98.02
w1q170_3	1,469	1,518	96.77
w1q170_4	1,414	1,518	93.15
w1q171_1	817	1,518	53.82
w1q171_2	1,245	1,518	82.02
w1q171_3	1,342	1,518	88.41
w1q171_4	1,463	1,518	96.38
w1q171_5	1,428	1,518	94.07
w1q171_6	1,465	1,518	96.51
w1q171_7	1,187	1,518	78.19
w1q171_8	1,475	1,518	97.17
w1q171_9	1,384	1,518	91.17
w1q172	39	1,518	2.57
w1q173	32	1,518	2.11
w1q174	41	1,518	2.7
w1q175	43	1,518	2.83
w1q176	24	1,518	1.58
w1q177_1	920	1,518	60.61
w1q177_2	937	1,518	61.73
w1q177_3	1,361	1,518	89.66
w1q177_4	1,118	1,518	73.65
w1q177_5	1,412	1,518	93.02
w1q177_6	1,497	1,518	98.62
w1q177_7	1,513	1,518	99.67
w1q177_8	1,517	1,518	99.93
w1q177_9	1,516	1,518	99.87
w1q177_10	1,417	1,518	93.35
w1q177_11	1,515	1,518	99.8
w1q177_12	1,487	1,518	97.96
w1q178	17	1,518	1.12
w1q179	24	1,518	1.58
w1q180	21	1,518	1.38
w1q181	19	1,518	1.25

w1q182	24	1,518	1.58
w1q183	1,445	1,518	95.19
w1q184	1,467	1,518	96.64
w1q185	1,467	1,518	96.64
w1q186	14	1,518	0.92
w1q187	14	1,518	0.92
w1q188	15	1,518	0.99
w1q189	17	1,518	1.12
screen_race	0	1,518	0
w1race	0	1,518	0
w1sample	0	1,518	0
w1sex	0	1,518	0
w1gender	0	1,518	0
w1sex_gender	0	1,518	0
wlage	0	1,518	0
w1sexualid	0	1,518	0
w1sexminid	11	1,518	0.72
w1pinc	0	1,518	0
w1hinc	0	1,518	0
w1poverty	27	1,518	1.78
w1povertycat	27	1,518	1.78
w1conversion	0	1,518	0
w1conversi~c	0	1,518	0
w1conversi~l	0	1,518	0
wlace	277	1,518	18.25
wlace_i	0	1,518	0
wlace_emo	91	1,518	5.99
wlace_emo_i	0	1,518	0
w1ace_inc	22	1,518	1.45
w1ace_inc_i	0	1,518	0
w1ace_ipv	139	1,518	9.16
w1ace_ipv_i	0	1,518	0
wlace_men	20	1,518	1.32
w1ace_men_i	0	1,518	0
wlace_phy	61	1,518	4.02
wlace_phy_i	0	1,518	0
wlace_sep	16	1,518	1.05
wlace_sep_i	0	1,518	0
wlace_sex	75	1,518	4.94
wlace_sex_i	0	1,518	0
wlace_sub	21	1,518	1.38

wlace_sub_i	0	1,518	0
wlauditc	15	1,518	0.99
wlauditc_i	0	1,518	0
w1childgnc	0	1,518	0
w1childgnc_i	0	1,518	0
w1chronic	50	1,518	3.29
w1chronic_i	0	1,518	0
w1connecte~s	51	1,518	3.36
w1connecte~i	0	1,518	0
w1dudit	66	1,518	4.35
w1dudit_i	0	1,518	0
wleveryday	40	1,518	2.64
w1everyday_i	0	1,518	0
w1feltstigma	17	1,518	1.12
w1feltstig~i	0	1,518	0
w1frame_wt	187	1,518	12.32
w1hcthreat	27	1,518	1.78
w1hcthreat_i	0	1,518	0
wlidcentral	23	1,518	1.52
w1idcentra~i	0	1,518	0
w1internal~d	29	1,518	1.91
w1internal~i	0	1,518	0
w1kessler6	27	1,518	1.78
w1kessler6_i	0	1,518	0
w1lifesat	24	1,518	1.58
w1lifesat_i	0	1,518	0
w1meim	31	1,518	2.04
w1meim_i	0	1,518	0
w1socialwb	59	1,518	3.89
w1socialwb_i	0	1,518	0
w1socsupport	46	1,518	3.03
w1socsuppo~m	28	1,518	1.84
w1socsup~m_i	0	1,518	0
w1socsuppo~r	30	1,518	1.98
w1socsup~r_i	0	1,518	0
w1socsup~t_i	0	1,518	0
w1socsuppo~o	28	1,518	1.84
w1socsup~o_i	0	1,518	0
w1weightin~1	187	1,518	12.32
w1weightin~3	187	1,518	12.32
w1cumulati~1	187	1,518	12.32

w1cumulati~2	187	1,518	12.32
w1cumulati~3	187	1,518	12.32
w1cumulati~g	187	1,518	12.32

Appendix 4: Missing values for each variable in Wave 2 dataset.

			Percent
Variable	Missing	Total	Missing
studyid	0	894	0
w2weight	0	894	0
w2q01	9	894	1.01
w2q02	46	894	5.15
w2q03	25	894	2.8
w2q04	5	894	0.56
w2q05	7	894	0.78
w2q06	7	894	0.78
w2q07	8	894	0.89
w2q08	9	894	1.01
w2q09	11	894	1.23
w2q10	7	894	0.78
w2q11	8	894	0.89
w2q12	9	894	1.01
w2q13	10	894	1.12
w2q14	10	894	1.12
w2q15	10	894	1.12
w2q16	9	894	1.01
w2q17	9	894	1.01
w2q18	8	894	0.89
w2q19a	10	894	1.12
w2q19b	10	894	1.12
w2q19c	17	894	1.9
w2q19d	10	894	1.12
w2q20	7	894	0.78
w2q21	5	894	0.56
w2q21_t_verb	0	894	0
w2q22_1	621	894	69.46
w2q22_2	374	894	41.83
w2q22_3	874	894	97.76
w2q22_4	874	894	97.76
w2q22_5	713	894	79.75
w2q23a	8	894	0.89
w2q23b	12	894	1.34
w2q23c	16	894	1.79
w2q23d	16	894	1.79
w2q24	5	894	0.56

w2q25	6	894	0.67
w2q26	7	894	0.78
w2q27	8	894	0.89
w2q28	5	894	0.56
w2q29a	7	894	0.78
w2q29b	13	894	1.45
w2q29c	10	894	1.12
w2q29d	13	894	1.45
w2q29e	7	894	0.78
w2q29f	7	894	0.78
w2q30	7	894	0.78
w2q31	14	894	1.57
w2q32	11	894	1.23
w2q33	9	894	1.01
w2q34	13	894	1.45
w2q35	8	894	0.89
w2q36	8	894	0.89
w2q37	5	894	0.56
w2q38	341	894	38.14
w2q39	342	894	38.26
w2q40	341	894	38.14
w2q40_t_verb	0	894	0
w2q41	341	894	38.14
w2q42	342	894	38.26
w2q43a	347	894	38.81
w2q43b	350	894	39.15
w2q43c	359	894	40.16
w2q43d	347	894	38.81
w2q44	342	894	38.26
w2q45	343	894	38.37
w2q46	342	894	38.26
w2q47	342	894	38.26
w2q48	342	894	38.26
w2q49	341	894	38.14
w2q50	341	894	38.14
w2q51	565	894	63.2
w2q52	572	894	63.98
w2q53	715	894	79.98
w2q54	715	894	79.98
w2q55	6	894	0.67
w2q56	9	894	1.01

w2q57	11	894	1.23
w2q58_1	824	894	92.17
w2q58_2	533	894	59.62
w2q58_3	825	894	92.28
w2q58_4	705	894	78.86
w2q58_5	888	894	99.33
w2q58_6	837	894	93.62
w2q58_7	875	894	97.87
w2q58_8	838	894	93.74
w2q58_9	791	894	88.48
w2q58_10	885	894	98.99
w2q58_11	886	894	99.11
w2q58_12	894	894	100
w2q58_13	863	894	96.53
w2q58_t_verb	0	894	0
w2q59	11	894	1.23
w2q60_1	566	894	63.31
w2q60_2	312	894	34.9
w2q60_3	789	894	88.26
w2q60_4	840	894	93.96
w2q60_5	866	894	96.87
w2q60_t_verb	0	894	0
w2q61	9	894	1.01
w2q62_1	683	894	76.4
w2q62_2	806	894	90.16
w2q62_3	241	894	26.96
w2q63_1	434	894	48.55
w2q63_2	365	894	40.83
w2q63_3	397	894	44.41
w2q63_4	748	894	83.67
w2q63_5	616	894	68.9
w2q63_6	717	894	80.2
w2q64	9	894	1.01
w2q65	8	894	0.89
w2q66	6	894	0.67
w2q67a	12	894	1.34
w2q67b	22	894	2.46
w2q67c	26	894	2.91
w2q67d	17	894	1.9
w2q68_1	347	894	38.81
w2q68_2	847	894	94.74

w2q68 3	848	894	94.85
w2q68 4	865	894	96.76
w2q68_5	859	894	96.09
w2q68 6	824	894	92.17
w2q68_7	777	894	86.91
w2q68_8	875	894	97.87
w2q68 9	882	894	98.66
w2q68_10	879	894	98.32
w2q68 11	848	894	94.85
w2q68_12	891	894	99.66
w2q68 13	799	894	89.37
w2q68_14	767	894	85.79
w2q68_15	781	894	87.36
w2q69_1	590	894	66
w2q69_2	796	894	89.04
w2q69_3	760	894	85.01
w2q69_4	781	894	87.36
w2q69_5	783	894	87.58
w2q69_6	708	894	79.19
w2q69_7	701	894	78.41
w2q69_8	812	894	90.83
w2q69_9	827	894	92.51
w2q69_10	786	894	87.92
w2q69_11	715	894	79.98
w2q69_12	854	894	95.53
w2q69_13	788	894	88.14
w2q69_14	700	894	78.3
w2q69_15	767	894	85.79
w2q70	36	894	4.03
w2q71	41	894	4.59
w2q72	10	894	1.12
w2q73	11	894	1.23
w2q74	7	894	0.78
w2q75	11	894	1.23
w2q76	9	894	1.01
w2q77	5	894	0.56
w2q78	83	894	9.28
w2q79	65	894	7.27
w2q80	86	894	9.62
w2q81_1	722	894	80.76
w2q81_2	755	894	84.45

w2q81 3	861	894	96.31
w2q81 4	890	894	99.55
w2q81_5	891	894	99.66
w2q81_6	891	894	99.66
w2q81_7	891	894	99.66
w2q81 8	821	894	91.83
w2q81 9	879	894	98.32
w2q81_10	878	894	98.21
w2q81_11	845	894	94.52
w2q81_12	838	894	93.74
w2q81 13	796	894	89.04
w2q81_14	889	894	99.44
w2q81_15	881	894	98.55
w2q81_16	836	894	93.51
w2q81_17	885	894	98.99
w2q81_18	885	894	98.99
w2q81_19	888	894	99.33
w2q81_20	886	894	99.11
w2q81_21	862	894	96.42
w2q81_22	860	894	96.2
w2q81_23	752	894	84.12
w2q81_24	867	894	96.98
w2q82	10	894	1.12
w2q83	8	894	0.89
w2q84a	4	894	0.45
w2q84b	7	894	0.78
w2q84c	6	894	0.67
w2q84d	8	894	0.89
w2q84e	6	894	0.67
w2q84f	6	894	0.67
w2q85	4	894	0.45
w2q86	7	894	0.78
w2q87	5	894	0.56
w2q88	5	894	0.56
w2q89	5	894	0.56
w2q90	5	894	0.56
w2q91	6	894	0.67
w2q92	5	894	0.56
w2q93	6	894	0.67
w2q94	9	894	1.01
w2q95	6	894	0.67

w2q96	5	894	0.56
w2q97	7	894	0.78
w2q98	9	894	1.01
w2q99	5	894	0.56
w2q100	7	894	0.78
w2q101	7	894	0.78
w2q102	11	894	1.23
w2q103	7	894	0.78
w2q104	873	894	97.65
w2q105	7	894	0.78
w2q106a	16	894	1.79
w2q106b	17	894	1.9
w2q106c	151	894	16.89
w2q106d	106	894	11.86
w2q107	8	894	0.89
w2q108	5	894	0.56
w2q109	7	894	0.78
w2q110	7	894	0.78
w2q111	6	894	0.67
w2q112	9	894	1.01
w2q113	8	894	0.89
w2q114	6	894	0.67
w2q115	5	894	0.56
w2q116	7	894	0.78
w2q117	557	894	62.3
w2q118	559	894	62.53
w2q119	557	894	62.3
w2q120	557	894	62.3
w2q121	557	894	62.3
w2q122a	7	894	0.78
w2q122b	8	894	0.89
w2q122c	10	894	1.12
w2q122d	10	894	1.12
w2q122e	8	894	0.89
w2q122f	6	894	0.67
w2q123_1	845	894	94.52
w2q123_2	790	894	88.37
w2q123_3	889	894	99.44
w2q123_4	844	894	94.41
w2q123_5	848	894	94.85
w2q123_6	845	894	94.52

w2q123 7	774	894	86.58
w2q123 8	785	894	87.81
w2q123 9	869	894	97.2
w2q123_10	862	894	96.42
w2q124	9	894	1.01
w2q125	9	894	1.01
w2q126_1	858	894	95.97
w2q126_2	864	894	96.64
w2q126_3	893	894	99.89
w2q126_4	888	894	99.33
w2q126_5	877	894	98.1
w2q126_6	873	894	97.65
w2q126_7	867	894	96.98
w2q126_8	870	894	97.32
w2q126_9	889	894	99.44
w2q126_10	875	894	97.87
w2q127	10	894	1.12
w2q128_1	893	894	99.89
w2q128_2	893	894	99.89
w2q128_3	894	894	100
w2q128_4	893	894	99.89
w2q128_5	894	894	100
w2q128_6	894	894	100
w2q128_7	893	894	99.89
w2q128_8	893	894	99.89
w2q128_9	894	894	100
w2q128_10	894	894	100
w2q129a	7	894	0.78
w2q129b	8	894	0.89
w2q129c	12	894	1.34
w2q129d	9	894	1.01
w2q129e	9	894	1.01
w2q129f	8	894	0.89
w2q129g	14	894	1.57
w2q129h	9	894	1.01
w2q129i	12	894	1.34
w2q129j	6	894	0.67
w2q129k	7	894	0.78
w2q130_1	777	894	86.91
w2q130_2	803	894	89.82
w2q130_3	891	894	99.66

w2q130 4	862	894	96.42
w2q130_5	854	894	95.53
w2q130_6	776	894	86.8
w2q130_7	818	894	91.5
w2q130_8	834	894	93.29
w2q130_9	874	894	97.76
w2q130_10	842	894	94.18
w2q131a	6	894	0.67
w2q131b	7	894	0.78
w2q131c	8	894	0.89
w2q131d	9	894	1.01
w2q131e	9	894	1.01
w2q131f	8	894	0.89
w2q131g	10	894	1.12
w2q131h	5	894	0.56
w2q131i	6	894	0.67
w2q132_1	664	894	74.27
w2q132_2	636	894	71.14
w2q132_3	889	894	99.44
w2q132_4	784	894	87.7
w2q132_5	771	894	86.24
w2q132_6	763	894	85.35
w2q132_7	705	894	78.86
w2q132_8	659	894	73.71
w2q132_9	853	894	95.41
w2q132_10	816	894	91.28
w2q133a	32	894	3.58
w2q133b	35	894	3.91
w2q133c	156	894	17.45
w2q133d	197	894	22.04
w2q133e	247	894	27.63
w2q133f	340	894	38.03
w2q133g	26	894	2.91
w2q133h	213	894	23.83
w2q133i	147	894	16.44
w2q133j	117	894	13.09
w2q133k	75	894	8.39
w2q1331	194	894	21.7
w2q133m	362	894	40.49
w2q133n	530	894	59.28
w2q133o	521	894	58.28

w2q134_1	680	894	76.06
w2q134_2	705	894	78.86
w2q134_3	819	894	91.61
w2q134_4	776	894	86.8
w2q134_5	786	894	87.92
w2q134_6	886	894	99.11
w2q134_7	894	894	100
w2q134_8	731	894	81.77
w2q134_9	798	894	89.26
w2q134_10	853	894	95.41
w2q134_11	880	894	98.43
w2q134_12	861	894	96.31
w2q135a	7	894	0.78
w2q135b	7	894	0.78
w2q135c	7	894	0.78
w2q135d	9	894	1.01
w2q135e	11	894	1.23
w2q135f	8	894	0.89
w2q135g	7	894	0.78
w2q135h	6	894	0.67
w2q135i	10	894	1.12
w2q135j	10	894	1.12
w2q135k	7	894	0.78
w2q1351	5	894	0.56
w2q136	9	894	1.01
w2q137	726	894	81.21
w2q138	828	894	92.62
w2q139	826	894	92.39
w2q140	782	894	87.47
w2q141	784	894	87.7
w2q142	783	894	87.58
w2q143	785	894	87.81
w2q144	784	894	87.7
w2q145	782	894	87.47
w2q146a	731	894	81.77
w2q146b	736	894	82.33
w2q146c	736	894	82.33
w2q146d	738	894	82.55
w2q146e	735	894	82.21
w2q146f	737	894	82.44
w2q146g	736	894	82.33

w2q146h	733	894	81.99
w2q146i	738	894	82.55
w2q146j	739	894	82.66
w2q147_t_v~b	726	894	81.21
w2q148a	739	894	82.66
w2q148b	780	894	87.25
w2q148c	791	894	88.48
w2q149	174	894	19.46
w2q150	176	894	19.69
w2q151	8	894	0.89
w2q152	9	894	1.01
w2q153	8	894	0.89
w2q154	11	894	1.23
w2q155	8	894	0.89
w2q156	21	894	2.35
w2q157a	92	894	10.29
w2q157b	154	894	17.23
w2q157c	105	894	11.74
w2q157d	259	894	28.97
w2q157e	318	894	35.57
w2q157f	342	894	38.26
w2q158a	71	894	7.94
w2q158b	79	894	8.84
w2q158c	96	894	10.74
w2q158d	93	894	10.4
w2q159	40	894	4.47
w2q160a	158	894	17.67
w2q160b	264	894	29.53
w2q160c	240	894	26.85
w2q160d	368	894	41.16
w2q160e	384	894	42.95
w2q160f	388	894	43.4
w2q161a	138	894	15.44
w2q161b	158	894	17.67
w2q161c	172	894	19.24
w2q161d	175	894	19.57
gcendiv	0	894	0
gcenreg	0	894	0
geduc1	0	894	0
geduc2	0	894	0
gemploy~2010	0	894	0

gmethod_ty~2	0	894	0
gmilesaway	8	894	0.89
gmilesaway2	8	894	0.89
gmsaname	0	894	0
gresponden~2	0	894	0
gruca	11	894	1.23
gruca_i	0	894	0
gzipcode	7	894	0.78
gzipstate	0	894	0
w1gender	0	894	0
w1sex	0	894	0
w2age	0	894	0
w2audite	8	894	0.89
w2auditc_i	0	894	0
w2bistigma	559	894	62.53
w2bistigma_i	556	894	62.19
w2chronic	34	894	3.8
w2chronic_i	0	894	0
w2cohort	0	894	0
w2connecte~s	26	894	2.91
w2connecte~i	0	894	0
w2dudit	23	894	2.57
w2dudit_i	0	894	0
w2everyday	26	894	2.91
w2everyday_i	0	894	0
w2feltstigma	8	894	0.89
w2feltstig~i	0	894	0
w2gender	0	894	0
w2idcentral	10	894	1.12
w2idcentra~i	0	894	0
w2internal~d	12	894	1.34
w2internal~i	0	894	0
w2kessler6	12	894	1.34
w2kessler6_i	0	894	0
w2sexminid	8	894	0.89
w2sexualid	0	894	0
w2socialwb	29	894	3.24
w2socialwb_i	0	894	0
w2socsupport	24	894	2.68
w2socsuppo~m	12	894	1.34
w2socsup~m_i	0	894	0

w2socsuppo~r	15	894	1.68
w2socsup~r_i	0	894	0
w2socsup~t_i	0	894	0
w2socsuppo~o	14	894	1.57
w2socsup~o_i	0	894	0