

APPENDIX C: CREATING AGGREGATE IMPACT AND PROBLEM MEASURES

Throughout this report, we refer to several aggregate measures of “impacts” (problems facing the population that are new since Hurricane Katrina) and “problems” (problems facing the population, whether they are new since Hurricane Katrina or existed before). This Appendix explains how and why individual measures were aggregated into categories.

Impacts

The survey measured changes in people’s lives after Hurricane Katrina across a broad range of areas. In fact, respondents were asked more than 50 survey questions either comparing individual aspects of their lives after the storm to their before-storm state, or about specific effects of Katrina on their lives. In order to understand the cumulative effects across a wide range of dimensions, it made sense to aggregate these individual measures into broader categories. The following table shows the broad categories chosen, the impact measured, and the specific questions included.

Area	Impact measured	Questions included
Employment	No job or a worse job after Katrina	Employment status, pay, and benefits now and before Katrina
Financial	Financial situation worse after Katrina	Personal financial situation and housing costs now and before Katrina, plus whether denial of a storm-related insurance claim had a major impact on household
Physical health	Physical health worse after Katrina	Self-reported health status now and before Katrina, as well as any chronic condition that is new or has gotten worse since Katrina
Mental health	Mental health worse after Katrina	Self-reported mental health status now and before Katrina, as well as any new medication for mental health since Katrina
Health care access	Access to health care compromised	How well health needs are being met, ease of travel to medical care, usual source of care, and uninsured status now and before Katrina
Stress	Stress took personal toll: temper, alcohol use, tension in marriage	Whether Katrina has led to harder time controlling temper, increased alcohol use, or serious stress in marriage/serious relationship
Housing and social network	Major life disruption in terms of housing or social network	How long residents were away from home after Katrina, whether they own their home now and before Katrina, are living in temporary housing, or do not feel at home in a new neighborhood, plus whether they had a close friend or family member die as a result of Katrina or lost a nearby social support network

We grouped these questions by broad areas that are often used to measure the status of people’s personal situations and well-being. Questions were grouped into categories that made intuitive sense and that corresponded closely with the exact answers from the respondent. For example, while some might argue that the measures we included under “stress” should be included in mental health, we kept a stricter definition of mental health that was based on respondents’ own reports of whether their mental health status had declined.

To confirm the validity of the categories, we ran factor analysis and scale reliability analysis with each of the individual items that make up the aggregate measures. This analysis confirmed that the categories we created were generally cohesive (i.e. items that were placed in the same aggregate measure loaded on the same factor; Cronbach’s Alpha values were reasonably high, and removing individual items did not increase Alpha values).

While the survey attempted to measure a broad range of ways in which people were affected by Hurricane Katrina, it was not possible to measure every impact of the storm. Notably, impacts are focused on the respondent, rather than everyone in the household, and other specific and important categories are missing (impacts on personal safety and education, for example).

Problems

The survey also measured problems currently facing the residents of the greater New Orleans area across a range of dimensions. These problems could have existed (and in most cases, likely *did exist*) before Hurricane Katrina. The broad categories of problems, specific problems measured, and specific questions included are shown below.

Area	Problems measured	Questions included
Employment	No job or inadequate wages	Self-reported employment status and whether current job pays enough to cover basic expenses
Physical health	Physical health challenges	Self-reported health status and whether respondent has ever been diagnosed with a chronic condition or disability
Mental health	Mental health challenges	Self-reported mental health status, whether respondent has been diagnosed with a serious mental illness or is taking medication for mental health, and validated scale questions measuring depression and post-traumatic stress disorder
Health care access	Health care coverage and access problems	How well health needs are being met, ease of travel to medical care, usual source of care, uninsured status, whether respondent has skipped or postponed care and/or had problems paying medical bills in past 6 months
Children in household	Child in home troubled, ill, or not getting needed care	How well children's health needs are being met, whether any child in home is uninsured, has a chronic condition or disability, or didn't get needed care in past 6 months, or child showing signs of behavioral problems

Again, questions were grouped into categories that made intuitive sense, and that corresponded closely with the exact answers from the respondent. Factor analysis and scale reliability analysis again confirmed that these categories were generally cohesive.