

INSTITUTIONAL FACTORS IN HEALTH DISPARITIES

by

Cicily Hampton

A dissertation submitted to the faculty of
The University of North Carolina at Charlotte
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in
Public Policy

Charlotte

2014

Approved by:

Dr. William P. Brandon

Dr. Teresa L. Scheid

Dr. John Szmer

Dr. Ellen Sewell

©2014
Cicily Hampton
ALL RIGHTS RESERVED

ABSTRACT

CICILY HAMPTON. Institutional factors in health disparities. (Under the direction of DR. WILLIAM P. BRANDON)

The purpose of this dissertation is to address institutional factors that may be the root cause of health disparities. Misdirected resources may help to explain why health disparities have actually increased as targeted interventions aimed at their elimination have proliferated.

This dissertation examines the impacts of potential causal mechanisms on health disparities in a low-socioeconomic status population. Rather than simply reporting descriptive statistics of populations in which health disparities exist, policies can be formulated that begin to address these causal mechanisms and eliminate health disparities if closer attention is paid to the fundamental causes of health disparities. Two institutional variables are examined in the two chapters of this dissertation: transportation access to mental health services and relative health as measured by the health of proximate individuals. The theory of relative health was developed specifically for this dissertation. Data from the 2012 Consumer Assessment of Healthcare Providers and Systems and the 2012 5-year estimates from the U.S. Census American Community Survey were used.

DEDICATION

To my parents, who bought me a Batmobile instead of a Barbie car, and encouraged me
to question conventional wisdom.

ACKNOWLEDGMENTS

I would first like to acknowledge the impact of the attorneys at the Center for Medicare Advocacy, Inc. on this work. It was Judith Stein, Alfred (Chip) Chiplin, Vicki Gottlich, Patricia (Trish) Nemore, and Toby Edelman who first encouraged me to write about health disparities in a new way. They have also provided me with the tools and training to take the contributions from this dissertation and have an impact on the world. The lessons learned during my tenure at the Center were not the kind that could have been learned in school, but were much more valuable.

I am extremely grateful to the members of my committee, Dr. William Brandon, Dr. Teresa Scheid, Dr. John Szmer, and Dr. Ellen Sewell, for the time and effort that they have provided over my entire course of study, as well as their dedication during the dissertation process as well. This dissertation would not have been possible without Dr. Brandon's unwavering and enthusiastic support. Dr. Scheid has pushed me to consider perspectives outside of, and contrary to, my own. This has made the dissertation a stronger work. Dr. Szmer has guided the methods contained in the dissertation, ensuring that the results were robust. Dr. Sewell trained me in economics during my first two years at UNC Charlotte. I would not have had the skills to develop the theory of relative health without this fundamental understanding of economics.

I would like to thank the former and current Public Policy Program directors: Dr. David Swindell and Dr. Beth Rubin. Their support of my divergence from traditional approaches early on has allowed me to continue to explore the "so what?" in new and interesting ways.

I must also acknowledge the contribution of Dr. Galen Smith, III and Mr. Keith Carnes who have contributed immensely to this dissertation through their work on the CAHPS project. Their work with the data cleaning and coding was essential to me completing this work in a timely manner.

I owe a special note of gratitude to the Public Policy Program's administrative assistant, Mrs. Kimi B. Tippet. She has always made sure that I have had the things I needed to be successful in the Program.

Lastly, I would like to acknowledge the people who made me who I am, the Hamptons and the Martinezes. These are the giants upon whose shoulders I stand.

TABLE OF CONTENTS

LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER 1: DEFINING AND MEASURING HEALTH DISPARITIES	1
1.1: What's in a name?: Health disparities, inequalities, or inequities	1
1.2: Defining health disparities	4
1.3: Confounding effects and measurement error	7
1.4: Using the Institutional Analysis and Development Framework to better understand health disparities	11
1.5: Investigating causal mechanisms in health disparities	13
1.6: Contributions: New measurements and theories	16
1.7: Overview of the dissertation	18
CHAPTER 2: IF YOU BUILD IT CAN THEY COME?: THE EFFECT OF ACCESS ON MENTAL HEALTH CARE UTILIZATION	19
2.1: Mental health disparities	20
2.1.1: Special issues in minority populations	23
2.1.2: Access issues experienced by low-socioeconomic status populations	28
2.2: Theory and hypothesis	30
2.3: Data and methods	33
2.4: Results	39
2.5: Discussion	51
CHAPTER 3: THE STATUS SYNDROME, REVISITED: A THEORY OF RELATIVE HEALTH	57
3.1: Introduction and background	57

	viii
3.2: Inequality, hierarchies and relative health	59
3.2.2: Relative income and Easterlin's paradox	62
3.3: Theory and hypotheses	66
3.3.1: An alternative hypothesis: Discriminatory labor markets in North Carolina	68
3.4: Empirical illustration	70
3.5: Results	76
3.6: Discussion	84
CHAPTER4: POLICY IMPLICATIONS	91
4.1: ... and justice for all?	91
4.2: Institutional mechanisms contributing to health disparities	93
4.2.2: The significance of education in health disparities	94
4.3: Specific policy prescriptions	95
4.3.1: Expand the explicit use of institutional determinants of health disparities in health disparities research and policy	96
	97
4.4: Future directions in health disparities research	
REFERENCES	98
APPENDIX A: 2012 NORTH CAROLINA CAHPS SURVEY	115
APPENDIX B: 2012 AMERICAN COMMUNITY SURVEY	136
APPENDIX C: 2007-2009 AMERICAN COMMUNITY SURVEY SUMMARY OF CHANGES	150

LIST OF TABLES

TABLE 1.1: Varying definitions of health disparities by agency	3
TABLE 2.1: Descriptive statistics of variables used in analyses	39
TABLE 2.2: Demographic distribution of respondents who sought mental health treatment	40
TABLE 2.3: Intersectionality of race and gender in mental health status and mental health treatment seeking	42
TABLE 2.4: Logistic regression: Access and mental health treatment	45
TABLE 2.5: Selected marginal effects of transportation access on mental health treatment seeking	49
TABLE 3.1: Health status and utilization questions used in factor analysis	73
TABLE 3.2: Rotated factor loadings on health status factors retained for analysis	75
TABLE 3.3: Descriptive statistics of variables used in analysis	75
TABLE 3.4: Results of ordinal logistic regression for percentage of Black residents on Black subpopulation	77
TABLE 3.5: Results of ordinal logistic regression for percentage of Black residents on White subpopulation	77
TABLE 3.6: Results of ordinal logistic regression for relative health hypotheses	80
TABLE 3.7: Ordinary least squares regression: Health and demographic variables	83

LIST OF FIGURES

FIGURE 1.1: Poverty rate of all persons by race and ethnicity, 1979-2012	8
FIGURE 1.2: People in poverty by selected characteristics: 2011 and 2012	10
FIGURE 1.3: Visual representation of the IAD framework	13
FIGURE 2.1: Anderson's initial measures of access	31
FIGURE 2.2: Anderson's phase 4 model of health services utilization	32
FIGURE 2.3: Community Care of North Carolina network map	35
FIGURE 2.4: Predictive margins of educational attainment	44
FIGURE 2.5: Predictive margins of mental health status	46
FIGURE 2.6: Marginal effect of transportation access for Blacks	47
FIGURE 2.7: Marginal effect of transportation access for Whites	48
FIGURE 2.8: Marginal effects of transportation access	51
FIGURE 3.1: The widening gap in health disparities over time illustrated by longitudinal analysis of life expectancy by education level at age 25	61
FIGURE 3.2: Happiness per capita in the United States, 1973-2004	63
FIGURE 3.3: The cyclical nature of signaling on labor market decisions	69
FIGURE 3.4: Scree plot after factor analysis suggests that one factor should be retained for the analysis	74
FIGURE 3.5: The relationship between objective health status and perceived health status by race	84

CHAPTER 1: DEFINING AND MEASURING HEALTH DISPARITIES

An extensive body of literature exists documenting the existence of health disparities in the United States (Bleich, Jarlenski, Bell, C. & LaVeist, 2012; Chin, Walters, Cook & Huang, 2007; Dressler, Oths & Gravlee, 2005; LaVeist, 2005; Krieger, Chen, Waterman, Rehkoph & Subramanian, 2003; Turner, 2010; Williams & Jackson, 2005; Shields, Fortun, Hammonds, King, Lerman, Rapp & Sullivan, 2005). Some health disparities literature has evolved to consider the social determinants of health disparities (Adler & Newman, 2002; Fiscella & Williams, 2004; Hartley, 2004; Shavers, 2007). However, the majority of policy in the United States at the federal level addresses and reports outcomes in terms of racial and ethnic health disparities (Centers for Disease Control and Prevention, 2013; Institute of Medicine, 2009; National Institutes of Health, 2011; Office of Minority Health, 2013). The objective of this dissertation is to address the divide between the study of causal mechanisms of health disparities in the academic literature and federal policy. Addressing the underlying causal mechanisms of health disparities allows for more effective health disparities policy to be developed. I argue that the institutions that disproportionately affect the lower socioeconomic status populations are appropriate targets for health disparity policy and outcomes.

1.1 What's in a name?: Health disparities, inequalities, or inequities

While there is a growing awareness of health disparities and policies aimed at reducing or eliminating these disparities, there is still no universally accepted definition

of what exactly constitutes a health disparity (Hebert, Sisk, & Howell, 2008). One's perspective, judgment and/or political ideology determine whether the term disparity, inequality, or inequity is used. The distinction generally rests on whether there is an inherent unjustness or unfairness associated with the disparity and if the disparity is avoidable (Braveman, 2011; Bleich, Jarlenski, Bell, & LaVeist, 2012; Whitehead, 1991). While there are health differences concomitant with the prevalence of certain diseases and conditions, these are not necessarily classified as health disparities, because they are not usually caused by social conditions and are not associated with normative judgments that they are unjust, unacceptable, *and* avoidable for those populations with a predisposition to them. Of course, determining what is just or fair requires an ethical judgment rather than some objective determination (Hebert, Sisk, & Howell, 2008). Once some inequality is discovered, evidence as to whether or not the inequality is of an avoidable nature is sought. Only then can a judgment be made as to whether the inequality is unjust, acceptable or unacceptable, and, therefore also representative of a health inequity or health disparity.

The term used to describe a difference in health outcomes, health inequity, inequality or disparity, has political implications for resource allocation and funding priorities (Carter-Pokras & Baquet, 2002). Deployment of resources to combat a health disparity implies a judgment that the condition is unjust, unacceptable, and avoidable. State and Federal agencies' use of the term health disparity, rather than the health inequalities or health inequities terms in use by other agencies, indicates that a normative judgment about the source of the disparity has already been made. However, variability in the conceptualization of health disparities has led to inconsistent definitions across

federal agencies and allowed prevailing social norms to determine which population group differences should be of concern to policy makers. In Table 1.1 I provide some examples.

TABLE 1.1: Varying definitions of health disparities by agency

Source	Definition
Minority Health and Health Disparities Research and Education Act of 2000	“A population is a health disparities population if, as determined by the Director of the NIH National Center on Minority Health and Health Disparities after consultation with the Director of the Agency for Healthcare Research and Quality, there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates in the population as compared to the health status of the general population.”
North Carolina Office of Minority Health and Health Disparities (2010)	“significant difference or inequalities in health that exist between whites and racial/ethnic minorities.”
National Institutes of Health	"the difference in the incidence, prevalence, mortality, and burden of disease and other adverse health conditions that exists among specific population groups in the United States."
National Institutes of Health National Institute on Health Disparities in Minority Health and Health Disparities	Many populations in America, whether defined by race, ethnicity, immigrant status, disability, sex, gender, or geography, experience higher rates of certain diseases and more deaths and suffering from them compared with the general population.
Institute of Medicine	“significant health concerns that may affect groups of individuals categorized by common occupation, environment, health condition or characteristics, or a shared exposure to a unique health risk. Of particular note are the IOM’s efforts around racial and ethnic disparities in health and health care.”
Health Resources and Services Administration Office of Health Equity	“The Office of Health Equity serves as the principal advisor and coordinator for the special needs of minority and disadvantaged populations, including American Indians/Alaska Natives, Asian Americans, African Americans or Blacks, Hispanics or Latinos, Native Hawaiians or Other Pacific Islanders, rural, urban, disabled, Lesbian, Gay, Bisexual and Transsexual (LGBTs) and other groups that have disparate health outcomes.”
U.S. Department of Health and Human Services, Office of Minority Health	Poor health outcomes for African Americans, Hispanic Americans, American Indians and Alaska Natives, Asian Americans, Native Hawaiians, and Pacific Islanders are apparent when comparing their health indicators against those of the rest of the U.S. population. These populations experience higher rates of illness and death from health conditions such as heart disease, stroke, specific cancers, diabetes, HIV/AIDS, asthma, hepatitis B, and overweight and obesity.

Table 1.1 (con't)

Centers for Disease Control and Prevention Office of Minority Health and Health Equity	“disparities in deaths and illness, use of health care, behavioral risk factors for disease, environmental hazards, and social determinants of health at the national level...10 new topics including activity limitations due to chronic diseases, asthma attacks, fatal and nonfatal work-related injuries and illnesses, health-related quality of life, periodontitis in adults, residential proximity to major highways, tuberculosis, access to healthier foods, and unemployment.”
--	---

Sources: Centers for Disease Control and Prevention. (2013). CDC health disparities and inequalities report- United States, 2013. *MMWR 2013;62(Suppl 3)*, 1-187;
 Health Resources and Services Administration. (n.d.). Office of health equity. Retrieved from: <http://www.hrsa.gov/about/organization/bureaus/ohe/>;
 Institute of Medicine. (2009). Select populations and health disparities. Retrieved from: <http://www.iom.edu/Global/Topics/Select-Populations-Health-Disparities.aspx>
 National Institutes of Health. (2011). Health disparities. *Health research information central*. U.S. National Library of Medicine. Retrieved from: <http://www.nlm.nih.gov/hsrinfo/disparities.html>;
 National Institute on Minority Health and Health Disparities. (n.d.). About NIMHD. Retrieved from: www.nimhd.nih.gov/about.html; P. Law 106-525;
 Pullen-Smith, B., Jones-Vessey, K. & Easley, C. (2010). Racial and ethnic health disparities in North Carolina, Report card 2010. *Office of Minority Health and Health Disparities and State Center for Health Statistics*. Raleigh.;
 U.S. Department of Health and Human Services, Office of Minority Health. (2013). About OMH. Retrieved from: <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=1&lvlID=7>.

1.2 Defining health disparities

Health disparities have been defined as differences in the morbidity or mortality between population groups, but at times this definition has been expanded to include differences in prevalence, disease incidence, survival rates and access to care in order to suit research, funding, or public policy goals (Braverman, P., 2006; Carter-Pokras & Baquet, 2002; Dressler, Oths, & Gravlee, 2005; Jackson, Knight, & Rafferty, 2010; P. Law 106-525). The defining characteristics of a particular population or a segment of the population also provides insight into areas of greatest interest for research, funding, and

policy makers. Characteristics almost universally included in health disparity definitions include educational attainment, occupational category, income, and sex.¹ Politically charged categories that may be found in some definitions, but excluded from others, include: disability status, gender, sexual orientation, age, language, customs or other cultural factors, the medically underserved, and poor rural White populations. Although not always explicitly stated, these differences are expected to have been due to the social conditions that disproportionately affect the population groups rather than to a difference that results from unavoidable factors (Aneshensel, 2009; Hines-Martin, Malone, Kim, & Brown-Piper, 2003; Miranda, McGuire, Williams, & Wang, 2009; Williams & Jackson, 2005). These avoidable conditions are disproportionately experienced by minority populations, whether racial, sexual, lingual, or other minority status. However, even with an increased focus on the effects of the social environment on health, many state and federal health disparities policies continue to focus on the individuals that live in these environments. As a result of this individualistic view, health disparity policy has concentrated on individual behavioral risk factors and a health promotion agenda (Lochner, Kawachi & Kennedy, 1999).

An additional implicit understanding of these disparities shown in Table 1.1 is that health disparities are unable to be measured directly, but only as residual effects after demographic and social conditions have been statistically controlled for (Hebert, Sisk, & Howell, 2006). The Consumer Assessment of Healthcare Providers and Systems (CAHPS) database is a national database of patient survey responses assessing public and private health plans, state Medicaid programs, and Children's Health Insurance Programs

¹ Outside of the United States, health disparities are understood to reference differences in health between socioeconomic groups, therefore, explicit racial inequalities are unexplored apart from separate studies on immigrant or aboriginal health (Braveman, 2006).

(Agency for Healthcare Research and Quality, 2012). The CAHPS database is the principal resource for the National Healthcare Disparities Report which guides key policymakers responsible for monitoring health disparities (Agency for Healthcare Research and Quality, 2013). Using the CAHPS dataset of North Carolina Medicaid survey respondents allows for control of demographic and socioeconomic status of the population in the sample while controlling explicitly for health insurance status, and to a certain extent, respondent income. The CAHPS dataset also allows researchers to control for different living environments of the survey respondents.

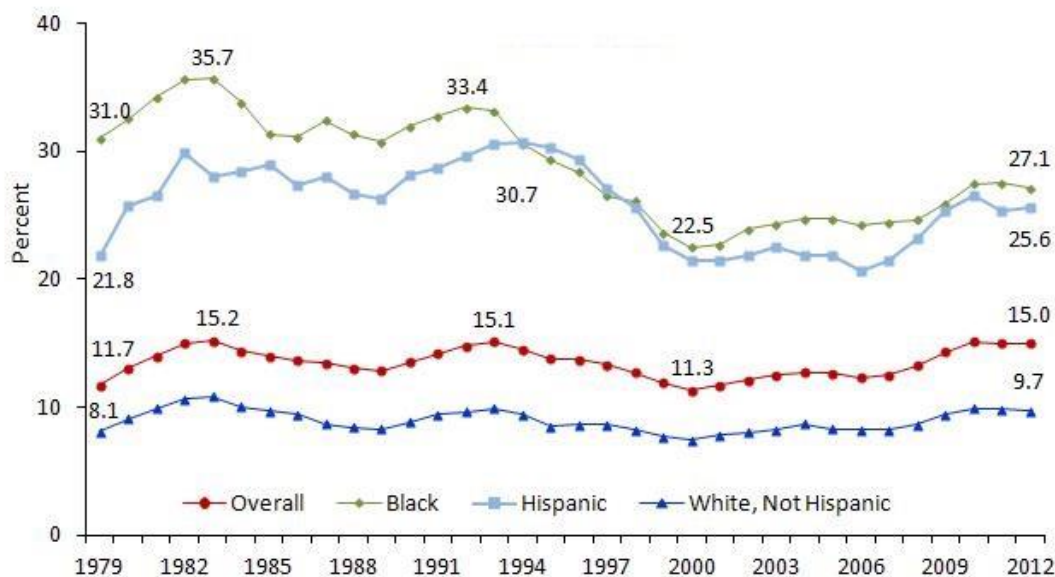
One commonly held view regarding the causal mechanisms of health disparities is that the gaps in health reflect differences in access to care (Andrulis, 1998; Politzer, Yoon, Shi, Hughes, Regan & Gaston, 2001). Many populations that suffer from health disparities are located in urban environments. These urban environments may also be racially segregated and have high concentrations of poverty (Charles, 2003; Williams & Collins, 2001). The poverty associated with these urban populations make their treatment less profitable for health care facilities. Recent research indicates that there has been a conscious effort to locate new health care facilities in more suburban communities where residents are more affluent and better insured (Hurley, Pham, & Claxton, 2005). This movement has led to populations with inadequate access to medical facilities in their own neighborhoods, inadequate transportation to medical facilities located outside of their neighborhoods, as well as increased opportunity costs associated with seeking and receiving treatment for a health issue.

It is not simply physical access to health care that concerns health disparities researchers however, because in the context of health disparities, access has multiple

dimensions. Access may refer to health insurance coverage or other financial means to pay for health care, access to health information to make appropriate decisions regarding care, and access to culturally competent providers (Lightner, 2004). In this way socioeconomic conditions such as education and income levels also have an effect on health. Socioeconomic status, whether measured by income, education, or occupation status, is a “strong predictor” of health outcomes (Williams & Jackson, 2005, p. 327). Lower educational attainment and low income jobs are associated with lack of health insurance and health disparities (Lillie-Blanton & Hoffman, 2005).

1.3 Confounding effects and measurement error

Of course, these socioeconomic indicators are strongly correlated with race in the United States. For instance, compared to Whites, Blacks have higher morbidity and mortality at every age (Jackson, Knight, & Rafferty, 2010). Since the United States is one of the only developed Western countries that does not routinely collect and report health outcomes by socioeconomic status, race has been used as a proxy measure of lower socioeconomic status and exposure to disease producing social factors (Kawachi, Daniels, & Robinson, 2005; Williams, Lavizzo-Mourey, & Warren, 1994; Williams & Jackson, 2005).



Note: *Hispanic* includes persons of all races. *White, Not Hispanic* does not include any Hispanic persons, and starting in 2002 excludes White, Not Hispanic persons reporting multiple race categories. *Black or African-American* includes Hispanic persons and starting in 2002 includes Black or African-American persons reporting multiple race categories.

FIGURE 1.1: Poverty rate of all persons by race and ethnicity, 1979-2012

Source: Department of Health and Human Services, Information on poverty and income statistics: A summary of 2013 current population survey data. Retrieved from: http://aspe.hhs.gov/hsp/13/PovertyAndIncomeEst/ib_poverty2013.cfm

However, race is an inadequate proxy for class in the United States, because it neglects several important factors that are significant in studying health disparities. Health disparities are usually measured by comparing the health of one group, as measured by rate or ratio differences in morbidity or mortality measures, to another that has been defined as the reference group. The use of race rather than socioeconomic status when documenting disparities that are caused by socioeconomic status rather than race risks masking the true magnitude of the problem. The likelihood of underestimating the true magnitude of disparity, if race rather than socioeconomic status is used, results from a reference group that contains large numbers of poor whites who also disparately suffer

from poor health status. These less healthy poor white populations would also be classified as a deprived population if the more precise category of socioeconomic status were used.

According to the Department of Health and Human Services (2013), in 2012 the poverty rate for Blacks and Hispanics was nearly triple that of White Americans at 2.8 and 2.6 times, respectively, as is shown by Figure 1.1. This alarming finding is cause for concern. However, because poverty and the social and environmental factors associated with it are principally responsible for currently avoidable health disparities, health disparities researchers should emphasize the fact that the majority of the population in the United States as well as the majority of those living in poverty are White (Figure 1.2). Too much of the current rhetoric, measurement techniques, and common reporting mechanisms associated with health disparities in the United States are inadequate to capture the disproportionate disease burden that poor Whites may be experiencing. Thus, the large numbers of poor Whites in poor health will skew the mean health status of the reference category downward, thereby seeming to reduce the size—and importance—of health disparities in the U.S. population.

People in Poverty by Selected Characteristics: 2011 and 2012

(Numbers in thousands, confidence intervals [C.I.] in thousands or percentage points as appropriate. People as of March of the following year. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/prod/techdoc/cps/cpsmar13.pdf)

Characteristic	2011					2012					Change in poverty (2012 less 2011) ¹ *			
	Total	Below poverty				Total	Below poverty				Number	Percent		
		Number	90 percent C.I. ² (±)	Percent	90 percent C.I. ² (±)		Number	90 percent C.I. ² (±)	Percent	90 percent C.I. ² (±)				
PEOPLE														
Total	308,456	46,247	761	15.0	0.2	310,648	46,496	899	15.0	0.3	249	Z		
Family Status														
In families	252,316	33,126	729	13.1	0.3	252,863	33,198	823	13.1	0.3	72	Z		
Householder	80,529	9,497	218	11.8	0.3	80,944	9,520	230	11.8	0.3	24	Z		
Related children under age 18	72,568	15,539	377	21.4	0.5	72,545	15,437	431	21.3	0.6	-102	-0.1		
Related children under age 6	23,860	5,844	191	24.5	0.8	23,604	5,769	221	24.4	0.9	-75	-0.1		
In unrelated subfamilies	1,623	705	109	43.4	4.5	1,599	740	99	46.3	4.9	35	2.9		
Reference person	671	272	41	40.6	4.4	641	278	36	43.3	4.6	5	2.7		
Children under age 18	846	409	70	48.4	5.1	855	440	65	51.4	5.3	30	3.0		
Unrelated individuals	54,517	12,416	347	22.8	0.5	56,185	12,558	344	22.4	0.5	142	-0.4		
Race³ and Hispanic Origin														
White	241,334	30,849	646	12.8	0.3	242,147	30,818	709	12.7	0.3	-33	-0.1		
White, not Hispanic	194,960	19,171	548	9.8	0.3	195,112	18,940	595	9.7	0.3	-231	-0.1		
Black	39,609	10,929	404	27.6	1.0	40,125	10,911	422	27.2	1.1	-18	-0.4		
Asian	16,086	1,973	194	12.3	1.2	16,417	1,921	191	11.7	1.1	-52	-0.6		
Hispanic (any race)	52,279	13,244	433	25.3	0.8	53,105	13,616	458	25.6	0.9	371	0.3		
Sex														
Male	150,990	20,501	369	13.6	0.2	152,058	20,656	464	13.6	0.3	155	Z		
Female	157,466	25,746	492	16.3	0.3	158,590	25,840	529	16.3	0.3	94	-0.1		
Age														
Under age 18	73,737	16,134	376	21.9	0.5	73,719	16,073	447	21.8	0.6	-61	-0.1		
Aged 18 to 64	193,213	26,492	472	13.7	0.2	193,642	26,497	522	13.7	0.3	4	Z		
Aged 65 and older	41,507	3,620	167	8.7	0.4	43,287	3,926	174	9.1	0.4	**305	0.3		
Nativity														
Native born	268,490	38,661	681	14.4	0.3	270,570	38,803	827	14.3	0.3	142	-0.1		
Foreign born	39,966	7,586	311	19.0	0.7	40,078	7,693	304	19.2	0.6	107	0.2		
Naturalized citizen	17,934	2,233	152	12.5	0.8	18,193	2,252	159	12.4	0.8	19	-0.1		
Not a citizen	22,032	5,353	274	24.3	1.1	21,885	5,441	254	24.9	1.0	87	0.6		
Region														
Northeast	54,977	7,208	319	13.1	0.6	55,050	7,490	302	13.6	0.6	282	0.5		
Midwest	66,023	9,221	403	14.0	0.6	66,337	8,851	388	13.3	0.6	-370	-0.6		
South	114,936	18,380	576	16.0	0.5	115,957	19,106	686	16.5	0.6	**726	0.5		
West	72,520	11,437	425	15.8	0.6	73,303	11,049	409	15.1	0.6	-388	*-0.7		
Residence														
Inside metropolitan statistical areas	261,155	38,202	848	14.6	0.3	262,949	38,033	914	14.5	0.3	-169	-0.2		
Inside principal cities	100,183	20,007	659	20.0	0.6	101,225	19,934	610	19.7	0.5	-73	-0.3		
Outside principal cities	160,973	18,195	625	11.3	0.3	161,724	18,099	669	11.2	0.4	-96	-0.1		
Outside metropolitan statistical areas ⁴	47,301	8,045	596	17.0	0.8	47,698	8,463	639	17.7	0.9	*418	0.7		
Work Experience														
Total, aged 18 to 64	193,213	26,492	472	13.7	0.2	193,642	26,497	522	13.7	0.3	4	Z		
All workers	144,163	10,345	257	7.2	0.2	145,814	10,672	294	7.3	0.2	327	0.1		
Worked full-time, year-round	97,443	2,732	122	2.8	0.1	98,715	2,867	133	2.9	0.1	135	0.1		
Less than full-time, year-round	46,720	7,614	230	16.3	0.5	47,099	7,805	233	16.6	0.5	191	0.3		
Did not work at least 1 week	49,049	16,147	379	32.9	0.7	47,828	15,825	369	33.1	0.6	-322	0.2		
Disability Status⁵														
Total, aged 18 to 64	193,213	26,492	472	13.7	0.2	193,642	26,497	522	13.7	0.3	4	Z		
With a disability	14,968	4,313	175	28.8	1.0	14,996	4,257	161	28.4	0.9	-56	-0.4		
With no disability	177,309	22,105	459	12.5	0.3	177,727	22,189	478	12.5	0.3	84	Z		

Z Represents or rounds to zero.

*An asterisk preceding an estimate indicates change is statistically different from zero at the 90 percent confidence level.

¹ Details may not sum to totals because of rounding.

² A 90 percent confidence interval is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. Confidence intervals shown in this table are based on standard errors calculated using replicate weights. For more information see "Standard Errors and Their Use" at <www.census.gov/hhes/www/p60_245sa.pdf>.

³ Federal surveys give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White and American Indian and Alaska Native or Asian and Black or African American, is available from Census 2010 through American FactFinder. About 2.9 percent of people reported more than one race in Census 2010. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

⁴ The "Outside metropolitan statistical areas" category includes both micropolitan statistical areas and territory outside of metropolitan and micropolitan statistical areas. For more information, see "About Metropolitan and Micropolitan Statistical Areas" at <www.census.gov/population/www/estimates/aboutmetro.html>.

⁵ The sum of those with and without a disability does not equal the total because disability status is not defined for individuals in the Armed Forces.

Source: U.S. Census Bureau, Current Population Survey, 2012 and 2013 Annual Social and Economic Supplements.

FIGURE 1.2: People in poverty by selected characteristics: 2011 and 2012

Source: US Census Bureau, People in poverty by selected characteristics: 2011 and 2012.

Another important aspect obscured when examining health disparities by race is within race variability. Where both racial and socioeconomic disparities are reported for the same heterogeneous population, the health disparities between races are commonly

smaller than the disparities reported by socioeconomic status. When these socioeconomic status differences are controlled for across races, health disparities are greatly reduced and in some cases eliminated entirely (Kawachi, Daniels, & Robinson, 2005; Smedley & Smedley, 2005; Williams, Yu, Jackson, & Anderson, 1997). Bach, Schrag, Brawley, Galaznik, Yakren, and Begg (2002) investigated race-based health disparities in cancer mortality and found that differences in treatment, differences in the stage at presentation, and mortality from other diseases were the likely cause of observed health disparities in cancer mortalities. As health disparities research continues to indicate that factors other than race are the cause of observed health disparities it becomes critical to evaluate these factors' influence on health disparities systematically in order to develop functional policies that will address health disparities adequately.

1.4: Using the Institutional Analysis and Development Framework to better understand health disparities

Intelligent policy design and evaluation needs to be conducted with a grounded understanding of the causal mechanisms of health disparities. This observation is particularly true when the definition and measurement criteria for health disparities are contested. In order to begin to understand the causes of health disparities, a framework is needed that will allow researchers to systematically examine institutions as a possible cause of health disparities. The definition of an institution is wide ranging—a commonly held rule, norm, set of social mores, or strategies that incentivize behavior in repetitive situations (Polaski & Ostrom, 1999). These institutions may be formalized in laws, policy & procedure, organizational structure, or may remain informal within the community that is subject to them. These institutions determine how and why the institutional participants

behave. The Institutional Analysis and Development (IAD) framework accomplishes this by offering a checklist of “independent variables that a researcher should keep in plain sight to explain individual and group behavior” (Gibson, 2005, p.229; Hess & Ostrom, 2005; Polski & Ostrom, 1999).

The IAD framework provides a means of breaking down complex social interactions into more basic elements in order to avoid the oversights and simplifications that can lead to policy failures (Polski & Ostrom, 1999). The elements of the IAD framework are shown in Figure 1.3. The institutional elements of a policy problem are examined, beginning with an analysis of the behavior in the action arena by the individuals and groups who are routinely involved in the policy problem. When a policy is already in place, the IAD framework can be used as a diagnostic tool by working backwards from policy outcomes, revise or re-affirm policy objectives, understand the incentives developed from the policy, or develop policy reform initiatives. Once a policy outcome has been identified, relevant patterns of interactions flowing from the action arena may be identified. By engaging in a detailed investigation of the physical and material conditions, community conditions, and rules-in-use in the action arena, the institutional arrangements influencing the policy outcome can be understood. Given that policies meant to address health disparities are already in place, this backward looking approach is the one that was adopted in this dissertation.

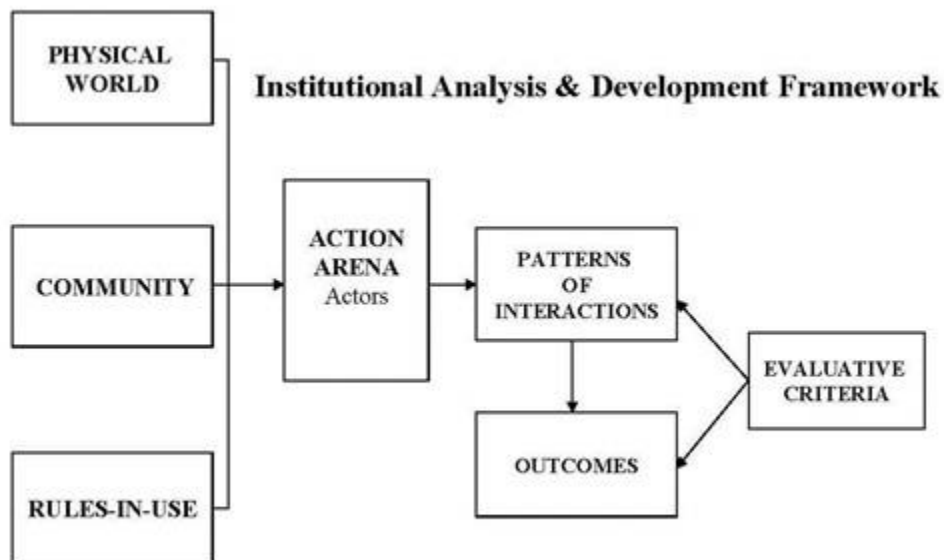


FIGURE 1.3: Visual representation of the IAD framework

Source: Polski, M. M., & Ostrom, E. (1999, February). An institutional framework for policy analysis and design. In *Workshop in Political Theory and Policy Analysis Working Paper W98-27*. Indiana University, Bloomington, IN.

1.5 Investigating causal mechanisms in health disparities

The first operationalization of the IAD framework to health disparities in this dissertation is in the area of mental health disparities. Mental health disparities is one area where differences continue to persist even when socioeconomic status has been controlled for in the model and research design (Aneshensel, 2009; Breslau, Aguilar, Kendlar, Su, Williams, & Kessler, 2006; Jackson, Knight, & Rafferty, 2010). The “race paradox” theoretical framework offers several theories to explain research findings that indicate that Blacks have lower rates of diagnosed psychopathology despite reporting higher rates of psychological distress. These explanations include simple underdiagnoses due to lack of health insurance, differences in presentation of mental illness in the Black

community, and differences in the coping mechanisms utilized in the Black community to protect against mental illness (Mezuk, Abdou, Hudson, Kershaw, Rafferty, Lee, & Jackson, 2013). These theories were applied to the IAD framework to better understand institutional factors that are disproportionately experienced by low-socioeconomic status populations. In the first empirical study (Chapter 2), which follows this introduction, I suggest new ways to understand why lower socioeconomic status populations have lower rates of diagnosed mental illness by examining the behavior that leads to a mental health diagnosis, namely mental health treatment-seeking behavior. The institutional factor that disproportionately affects those in the low socioeconomic status population is lack of reliable transportation access. This is an appropriate main independent variable due to lack of healthcare and transportation investment in low-income neighborhoods, which themselves are indicative of the lack of social capital typical in such environments. The CAHPS dataset is particularly useful in this analysis given the overwhelmingly female population (69.3%). While the majority of the respondents are White (58.0%), in accordance with national poverty statistics, there is a sufficient population to examine the intersectionality of race and gender by examining the mental health treatment seeking behavior of Black women (28.2%). Intersectionality is particularly important in the analysis for two reasons. The first reason intersectionality is important is due to the differential prevalence of mental health disorders on Females and Blacks. An additional reason why intersectionality is important is due to the compound effects of psychological stressors that occur as a result of being Black and a woman, two identities that historically have experienced oppression and decreased access to social capital.

The second empirical study (Chapter 3) is motivated by an anomalous finding: contrary to the conventional wisdom about the relationship between race and health status, Black Medicaid beneficiaries in North Carolina have consistently rated their health as better than their White counterparts (Brandon, Schoeps, Sun, & Smith, 2008; Brandon, Smith, Hampton, Carnes, & Tripp, 2014). These findings have been reported across two iterations of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey six years apart using two different survey instruments (CAHPS 3.0 in 2006 and CAHPS 4.0 in 2012). Chapter 3 presents a theory of relative health where the health of proximate others is influential in determining self-rated health status, a measure widely held to be an accurate measure of morbidity and mortality by health researchers. The creation of an objective health status measure to be compared with the self-rated health status measure provides a mechanism by which the subjective perception of health status may be better understood to contribute to health disparities by inducing suboptimal health behaviors and utilization for a given objective health status.

The second study attempts to understand this finding of better subjective health of Blacks enrolled in North Carolina's Medicaid program as compared to the subjective health of Whites enrolled in North Carolina's Medicaid program. Taking a step backward to examine the health behaviors that may influence this outcome reveals that Blacks had lower rates of utilization than Whites in the program. Attributes of the physical world that are examined include neighborhood level characteristics such as the level of neighborhood segregation and median income. The paper develops a theory of relative health to better explain these behaviors by attempting to understand the rules in use associated with a lower social comparison standard. It tests the explanatory power of this

relative health hypothesis against an alternative hypothesis that explains the Black-White difference as a systemic difference between the races, such that Black incomes are low enough to qualify for Medicaid in North Carolina.

1.6 Contributions: New measurements & theories

The four individual chapters of the dissertation together make five important contributions to the thinking, methodology and theory associated with the study of health disparities. First, it shifts the thinking in health disparities policy reporting from one dominated by racial outcomes to one that explores the social conditions that are more prevalent in the environment of lower socioeconomic status populations. Modeling social, institutional, and environmental factors tests whether the significance accorded to race in the past has masked the role of other social factors in older health disparities research. Perhaps this altered emphasis will allow social scientists to reduce their reliance on a social construct as an explanatory variable in health disparities.

In accordance with the broader effort of the dissertation to shift the thinking surrounding policies and metrics of health disparities, the second contribution is the development of the theory of relative health to explain the disparity in favor of Black Medicaid recipients across multiple iterations of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey in North Carolina on a measure of self-rated health status. This theory provides a potential explanation as to how health disparities can be increasing despite advances in medical science and additional resources devoted to the elimination of health disparities.

The third contribution of this research is that it calls into question the validity of the self-rated health status measure in diverse populations. Previous research has found the self-rated health status measure to be a remarkably consistent and accurate predictor of

subsequent health outcomes in certain populations (Idler, & Benyamini, 1997; Miilunpalo, Vuori, Oja, Pasanen, & Urponen, 1997; Mossey & Shapiro, 1982). Calling attention to the inconsistencies between perceptions of health and actual health status measures alerts researchers to the need to test for this discrepancy and control for objective health status, rather than taking the accuracy of the self-rated health status measure for granted.

In order to test the theory of relative health, Festinger's (1954) social comparison theory and more recent social standards theory literature was utilized to derive reference groups by which CAHPS respondents are thought to be comparing themselves (Clark, Frijters, & Shields, 2008; Luttmer 2005; Knight, Song, & Gunatilaka, 2009). It is very rare that survey respondents are explicitly asked to explain to the researcher how they have arrived at a subjective assessment. The insignificant findings provide a basis for understanding the limits of social comparison theory as to how we relate to proximate others and how the incorrect assumption of comparability may accompany geographic reference groups if the two groups are not of similar ability. This is the fourth contribution of the research.

Since social conditions and health status vary greatly by socioeconomic status, recent theoretical works have examined the possibility that mental health disparities favoring Blacks do not exist, but are instead the result of measurement error when race and class effects are confounded across income groups in empirical research (Braveman, 2006; Hayward, Miles, Crimmins & Yang, 2000; Kawachi, Daniels, & Robinson, 2005). This paper addresses these criticisms by examining mental health care utilization in a low-income North Carolina Medicaid population for differences by race, while controlling for mental health status. Thus, an additional contribution of this research is its exploration of the validity of within socioeconomic group racial differences in health.

1.7 Overview of the dissertation

The dissertation is organized into four chapters. The introduction contains background material that is relevant to the chapters which follow it. After this introduction chapter, the dissertation continues with two empirical studies which make up chapters 2 and 3 of the dissertation. These analyses test six hypotheses using quantitative data obtained from the CAHPS survey and ACS data. The two empirical chapters examine literature and theories relevant to their separate analyses. The last chapter summarizes the findings and presents directions for future research.

CHAPTER 2: IF YOU BUILD IT, CAN THEY COME?: THE EFFECT OF ACCESS ON MENTAL HEALTH CARE UTILIZATION

The study of disparities in the field of mental health has been a tangle for many years. One manifestation of this confused state is the fact that the social environment of low-income populations, especially those with a high proportion of racial minorities, leads mental health experts to expect them to suffer from a greater burden of mental illness than more affluent and non-minority populations experience. Use of the Institutional Analysis and Development Framework to examine the social conditions that disproportionately affect low-socioeconomic status populations reveals that these communities have less access to social capital that would allow them accessibility to mental health treatment, investments in public transportation infrastructure, and opportunities to self-actualize through social capital resources. Though low socioeconomic status populations lack access to stress mediating factors that higher socioeconomic status populations have access to, surveys that generate self-reports by low-income and racial minority subjects and studies based on objective clinical mental health diagnoses report *lower* prevalence of depressive mental illness (Lincoln, Chatters & Taylor, 2003).

This chapter begins by presenting the range of inequalities relevant to mental health disparities and contrasts this review with the way disparities in physical health have come to be understood. The chapter then uses a logistic regression analysis to

explore how limited physical access to health care facilities may be contributing to the multifactorial disparities involved in mental health. The chapter then presents the results of the logistic regression analysis. The chapter ends with a discussion of the results and the broader meaning of the results in terms of efforts to ameliorate mental health disparities.

2.1 Mental Health Disparities

Mental health disparities have been defined as the “disproportionate amount of psychopathology found among persons of disadvantageous social standing” (Aneshensel, 2009, p. 377). The population said to be suffering from greater mental health disparities actually have fewer diagnosed mental health disorders than more advantaged populations. In contrast, these populations do suffer from greater observed prevalence of physical disease. The prevailing research finding that lower socioeconomic status and racial and ethnic minorities have the same or lower rates of diagnosis of most mental health disorders seems to conflict with research showing that these populations experience elevated levels of psychological distress which other research links to mental illness (Aneshensel, 2009; Breslau, Aguilar, Kendlar, Su, Williams, & Kessler, 2006; Jackson, Knight, & Rafferty, 2010). Of course, psychiatric diagnosis and psychological distress are two entirely separate measures (Neighbors, Jackson, Campbell & Williams, 1989). Research indicates that a great deal of subjectivity in clinical psychiatric diagnoses is exhibited when examining psychiatric symptoms in patients of difference cultures (Neighbors, Trierweiler, Ford & Muroff, 2003). Due to the possible disparity between clinical diagnosis of a mental health disorder and the presence of psychological stressors,

this research uses a self-rated measure of psychological distress rather than clinical diagnoses of a mental health disorder.

Over the past several decades, numerous research findings have suggested an inverse relationship between low socioeconomic status and serious mental disorders (Aneshensel, 2009). These findings are contrary to the expected relationship, because the concentration of psychological stressors among low socioeconomic status groups suggests that lack of education, low occupational status, and poverty creates life conditions that are more conducive to the development of mental disorders (Adler, Boyce, Chesney, Cohen, Folkman, Kahn & Syme, 1994). Additionally, low socioeconomic status inhibits access to the resources that may mediate or moderate this stress.

Diagnostic psychiatry continues to lack definitive etiologies for many of the mental illnesses that have been identified, nosographized and treated. Several theories have been developed that lead health care researchers to expect higher rates of diagnosed mental illness in the lower socioeconomic classes than are currently reported. Kindling theory suggests that multiple stressors or ongoing stress may reduce an individual's threshold for the development of mental health disorders (Hines-Martin, Malone, Kim & Brown-Piper, 2003; Monroe & Harkness, 2005; Post, 1992). Interpretation of clinical observations led Post (1992) to theorize that environmental stressors play a major role in initial occurrences of major depressive and anxiety disorders but a less significant role in recurrent episodes. Researchers have hypothesized that these stressors sensitize the brain to the conditions of depression and anxiety, thereby lowering the threshold for the onset of these conditions (Kendler, Thornton & Gardner, 2000; Monroe & Harkness, 2005). It

has even been suggested that over time symptomology for some mental illnesses may occur independently of psychosocial stressors as a result of the threshold becoming so low that the brain remains sensitized to stress conditions at all times (Post, 1992; Post & Weiss, 1999; Lewinsohn, Allen, Seeley, & Gotlib, 1999).

For decades research has shown that lower socioeconomic status persons experience more stress, as conceptualized in the psychological literature than their high socioeconomic status counterparts (Adler, Boyce, Chesney, Cohen, Folkman, Kahn & Syme, 1994; Dohrenwend & Dohrenwend, 1970). Those in the lower socioeconomic classes are thought to be at increased risk for mental illness due to this increased exposure to stress. According to Adler et al. (1994), stress is triggered either by demands exceeding one's ability to cope or major life events requiring adaptation such as the death of a loved one, divorce, or job loss. For example, stress generated by lower educational attainment may disproportionately impact those in the lower socioeconomic classes, leaving more individuals without the specialized skills that would protect them from repeated job losses. The stress-buffering model posits that the poorest mental health outcomes occur when there is high exposure to psychological stress coupled with low access to psychosocial resources to mediate, or buffer, this stress (Aneshensel, 2009). Although both kindling theory and the stress buffering model hypothesize that low socioeconomic status individuals should display higher rates of observed mental health disorders due to their prolonged exposure to chronic stressors, some empirical research fails to confirm their hypotheses (Snowden, 2003).

2.1.1: Special issues in minority populations

Research from the sociological and anthropological disciplines provides several reasons why an exclusive focus on socioeconomic status without regard to culture is inadequate. The greater proportion of minorities among low socioeconomic status individuals may be skewing the research that suggests that low socioeconomic status individuals have lower rates of diagnosed mental health disorders. Research has shown differences in the way minorities use mental health treatment. According to their research regarding patterns of usage of mental health services, Chow, Jaffee, & Snowden (2003) found that minorities use emergency services as a source for mental health treatment more often than preventive outpatient mental health services. As with physical health care, minorities have less access to mental health services than do Whites, when income has not been included as a control. (Hines-Martin, Malone, Kim, & Brown-Piper, 2003). Wells, Klap, Koike, & Sherbourne (2001) found that, among those perceived to have a need for mental health care, blacks were more likely to have no access to this care. Lastly, research has shown that even when Blacks do have financial access to this care via an insurance mechanism they are still less likely than Whites to use the outpatient mental health care services available to them (Chow, Jaffee, & Snowden, 2003; Wells, Klap, Koike, & Sherbourne, 2001;).

Cultural conceptions of what exactly constitutes mental illness have consequences for help-seeking behavior, stereotypes associated with mental illness, and the kinds of treatments that are deemed acceptable for treating these populations (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). In their qualitative study of African American adults voluntarily seeking mental health services for the first time, Hines-Martin et al.,

(2003) found that the median length of time from mental health symptom onset to treatment-seeking was 5 years, due to obstacles associated with these cultural conceptions. The obstacle most often cited by the African American subjects in the study was the difficulty in self-understanding that the subject was having a mental health issue as well as a lack of awareness of potential resources and solutions for the problem. It is important to note in this study that the acquisition of information regarding the nature of mental health problems and treatment resources that led to treatment was due to the information gathering efforts of the subject or their family members. The knowledge acquisition mechanism is important because the second and third most commonly identified obstacles to seeking treatment were the subject's and their family member's beliefs, attitudes, and values about mental illness and mental health care (Hines-Martin et al., 2003). Subjects said that they did not think of themselves as crazy, did not think they needed help because their individual situation was better than others around them, or they did not recognize their problems as mental health issues until these problems began to interfere with their ability to function. These qualitative findings are consistent with quantitative findings regarding treatment-seeking behavior by Chow, Jaffee, & Snowden (2003), which found that Blacks were more likely than Whites to have been referred to mental health treatment by the criminal justice system or social service agencies and less likely to be referred by themselves, friends, or family members.

Due to the lack of biochemical markers for many mental health disorders, diagnosis of mental health disorders must be based on behavioral assessment. Consequently, inconsistency among mental health professionals in their perceptions of a patient's presentation and subsequent diagnosis is common (Cowen & Wood, 1991;

Regier, Kaelber, Rae, Farmer, Knauper, Kessler, & Grayson, 1998; Neighbors, Trierweiler, Ford & Muroff, 2003).

Inconsistency in mental health diagnoses form the basis of the argument that minorities have lower rates of mental health disorders despite higher rates of psychological stressors due to misdiagnoses and underdiagnoses of some mental illnesses. According to Borowsky, Rubenstein, Meredith, Camp, Jackson-Triche & Wells, (2000) a lack of cultural competency on the part of mental health care professionals results in misdiagnosis due to inadequate recognition of symptoms in minority patients. Presentation of symptoms may vary greatly depending on the patient's social standing, and the presentation may not be consistent with the medical literature. Cultural differences may influence the way symptoms are described, particularly when the patient is unfamiliar with mental health disorders. Demonstrating the importance of cultural differences in how mental health disorders are defined and diagnosed are studies that indicate that Blacks have more depression-related symptoms than Whites but, nonetheless fail to meet clinical criteria for major depression when assessed for mental health disorders (Jackson, Knight, & Rafferty, 2010; Wells, Klap, Koike, & Sherbourne, 2001). Because accurate diagnosis is essential to adequate mental health treatment, a number of researchers explore the need for an awareness of the culture and prevailing attitudes in minority communities regarding mental health disorders and mental health care services. This understanding of cultural attitudes toward mental illness is necessary to develop a mental health care system that is responsive to minority communities (Akutsu, Snowden, & Organista, 1996; Betancourt, Green, Carrillo, & Park, 2005; Department of Health and Human Services, 2001; Office of Behavioral and Social

Sciences Research, 2001). Of course, any diagnosis is contingent on the patient's ability to access a medical facility and medical personnel for assessment.

The literature reviewed to this point distinguishes at least four dimensions of disparities. The chapter has discussed the expected vs. the actual prevalence of DSM diagnosed mental health disorders in the low socioeconomic status population based on prominent theories in diagnostic psychiatry. The chapter has provided a definition of mental health disparities. The chapter has identified issues that are unique to minority populations and mental health issues. Next the chapter will explore access issues as they relate to low socioeconomic status populations and discuss how the inability of lower socioeconomic populations to access health care facilities and be assessed for mental health disorders may be a barrier to discovering the true incidence of mental health disorders.

Traditionally membership in a racial minority group coupled with low-income status has made these populations susceptible to living in urban centers characterized by segregated areas of concentrated poverty (Massey & Denton, 1993; Lichter, Parisi, & Taquino, 2012; Quillian, 2012). Rural poverty is more difficult to characterize due to its wider geospatial disbursement and more heterogeneous populations than urban poverty centers (Lichter, Parisi, & Taquino, 2012). One example of a healthcare issue that affects the rural and urban poor disproportionately is access to physicians (Gaskin, Dinwiddie, Chan, & McCleary, 2012; Hart, Salsberg, Phillips, & Lishner, 2002).

Social capital has been defined as resources or potential resources that are available to a group or members of a group by virtue of institutionalized network relationships within the group (Bourdieu, 1985; Kawachi, Kennedy, Lochner &

Prothrow-Smith, 1997). These social networks result from deliberate “investment strategies” on the part of group members in an effort to institutionalize group relations (Portes, 1998, pg. 3). These social relationships allow access to resources within the network as well as the ability to control the quality of those resources (Baker, 1990). Adherence to these networks function not only to concentrate resources within the group but also to preclude outsiders from gaining access to these resources. These outside groups lack the social capital necessary to gain access to these resources.

Lack of social capital by a group inhibits group members and the group as a whole from securing benefits that result from the consolidation of social capital by other groups. This is often demonstrated by the lack of social capital exhibited by low-income communities. These groups often lack the necessary resources to control the zoning, investment, and resource availability in their own neighborhoods. This lack of social capital leaves residents more likely to have to travel outside of their immediate neighborhood to access things like adequate education, employment opportunities, and quality health care.

New evidence suggests that class based segregation, as well as race based segregation, increased during the latter part of the 20th century (Lichter, Parisi, & Taquino, 2012; Rothwell & Massey, 2010). These new spatial distributions of wealth exemplify the political economy of place, thereby fulfilling a prediction by Harvey Molotch (1976). Communities with high social capital are able to compete for assets with high economic value using political tools such as exclusionary zoning regulations and municipal investment choices to keep impoverished residents out. Recent research has shown that there has been an intentional movement to locate new medical facilities in

locations that are closer to more affluent and therefore better insured consumers (Hurley, Pham, & Claxton, 2005). These new phenomena have left both urban and rural low-income status residents with limited physical and financial access to health care.

2.1.2: Access issues experienced by low-socioeconomic status populations

The move of health care facilities away from low-income neighborhoods forces the low-income individual to travel greater distances to their health care provider's office. Thus, access to transportation is essential for low-income individuals; yet low-income persons are less likely to have access to adequate transportation than more affluent populations due to transportation investment priorities (Ong, 2002; Murakami & Young, 1997).

In their study, Subramanian, Acevedo-Garcia & Osypuk (2005) documented disparities in health outcomes at both the individual and the neighborhood level. Distance and access to transportation affect whether or not a person is able to see their health care provider (Billi, Pai, & Spahlinger, 2007; Erwin, Fitzhugh, Brown, & Looney, 2010). Qualitative analyses mirror these findings. In their cross-sectional analysis of barriers to care, Flores, Abreu, Olivar, & Kastner (1998) surveyed all parents of children presenting at the Latino children's clinic housed within a major inner city hospital. In three different contexts the authors found that transportation and access were significant barriers to care. Respondents who were asked in general about access barriers, most commonly specified transportation problems, followed by distance from health care facilities coupled with the expense and inconvenience of public transportation.

As noted above, problems accessing health care facilities do not only affect those residing in urban environments. Researchers have attempted to isolate the effect of

distance and access to care from other social determinants of health by using rural populations to find enabling factors in the provision of health care services (Arcury, Gesler, Preisser, Sherman, Spencer, & Perin, 2005; Erwin, Fitzhugh, Brown, & Looney, 2010). Arcury et al., (2005) found that those who received a ride from a family member or who had used public transportation to a health care facility had a significantly higher number of chronic care visits; however, only those who had a driver's license themselves had a greater number of preventive check-up visits than those without adequate transportation to a health care facility. Due to its combination of urban and rural environments, Erwin et al., (2010) attempted to analyze the interaction of race, geographic location and socioeconomic status in Tennessee to determine the effect of rurality on Black mortality. When the authors controlled for the traditional socioeconomic factors assumed to be associated with health inequities (income, education, and employment status), only population density and proportion of African Americans in the population remained significant.

The analysis by Billi et al. (2007) specifically looks at the effect of distance from the patient's home to the primary care provider, rather than simply at the rurality of the patient's home setting, and its effect on the number of visits that the patient has with that provider in a given year. This research is consistent with the distance decay theory as it relates to health care utilization. The distance decay theory postulates that health care utilization is inversely related to the distance from the source of care, i.e. distance is a barrier to health care utilization (Shannon, Bashshur, & Metzner, 1969). In terms of access, the theory presupposes that the greater the costs associated with accessing a good or service, the less likely individuals are to partake in those activities. The costs

associated with access to health care include public transportation costs as well as opportunity costs associated with accessing health care services. In accordance with the distance decay theory, patients should choose the provider that is the most convenient geographically. As is noted in the analysis by Billi et al. (2007) patients do not always choose the closest provider however, particularly among the low income population that may be dependent on Medicaid and a limited network of providers willing to accept new Medicaid patients (Decker, 2013). This dilemma leaves Medicaid populations in a situation where they may not have adequate access to a convenient health care facility or provider. This situation is particularly unfortunate when the health care provider is the only reliable source of information regarding mental health disorders, a situation likely to leave mental health disorders undiagnosed. Yet we do not know the effect that access to adequate transportation to health care has on mental health care assessment and mental health care seeking behavior. Thus, the question that this paper attempts to answer is: what effect does access to transportation have on whether or not a person receives mental health care treatment?

2.2: Theory and Hypotheses

Considering the factors discussed above regarding barriers to discovery of the true incidence of mental health disorders in low socioeconomic status communities, such populations may experience a greater burden of unmet mental health care needs than previously hypothesized (Hines-Martin, Malone, Kim, & Brown-Piper, 2003). Some barriers, too, may be self-imposed as suggested by Anderson's (1995) initial measures of access in Figure 2.1. According to Anderson, potential access is simply the presence of the enabling resources such as community and individual characteristics that determine

health beliefs and attitudes toward health care as well as community and personal resources like health care personnel and facilities and the means and knowledge to access those facilities. Realized access is whether someone actually utilized health services. Anderson (1995) makes the distinction between equitable and inequitable access by the character of the dominant factors determining utilization. If need and demographic characteristics such as age, sex, and health status are the dominant factors that determine an individual's utilization, then access is equitable. If enabling resources such as transportation access or income, social and community structures, and cultural health beliefs are the dominant factors that determine an individual's utilization, then access is inequitable.

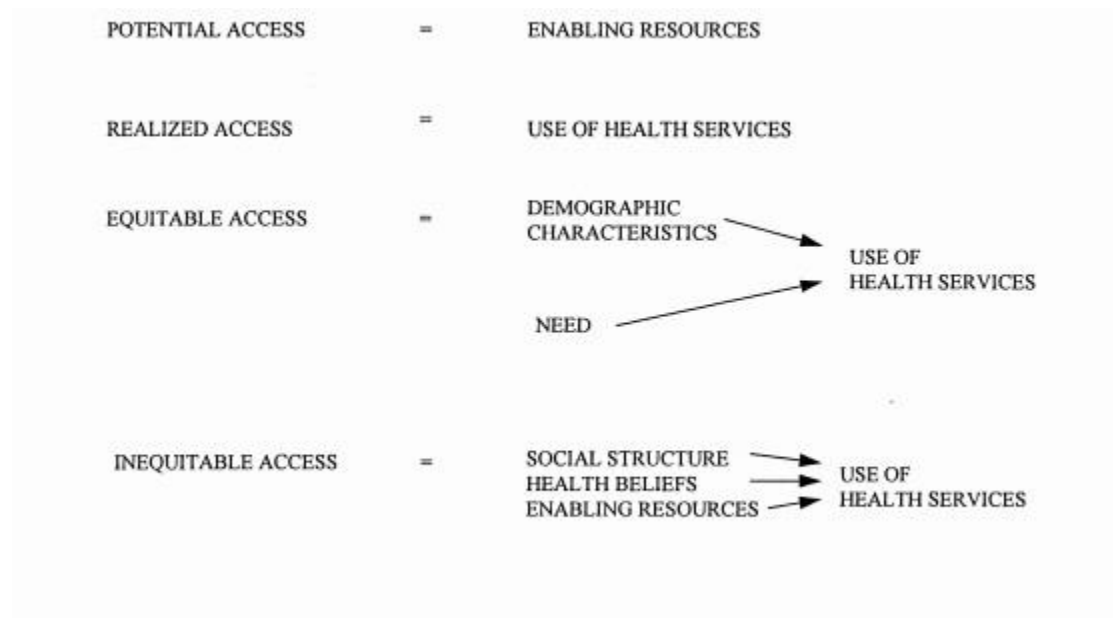


Figure 2.1 Anderson's initial measures of access

Source: Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of health and social behavior*, 1-10.

The objective need for health services was once thought to be the main contributing factor that determined whether or not someone utilized health care services. However, as illustrated by Figure 2.2, predisposing characteristics and enabling resources, including access to health care facilities, is vital to health services utilization. These predisposing characteristics and enabling resources are at least partially responsible for an individual's evaluation of perceived need for health care utilization as demonstrated in qualitative research regarding attitudes toward mental health disorders. What is not necessarily explicitly clear in Figure 2.2 is that without enabling characteristics such as transportation access to the health care facilities where utilization occurs, perceived need for health care services does not matter. No matter how much individuals may feel they need treatment for a health condition, without a way for them to access this service, they will never be able to receive needed treatment.

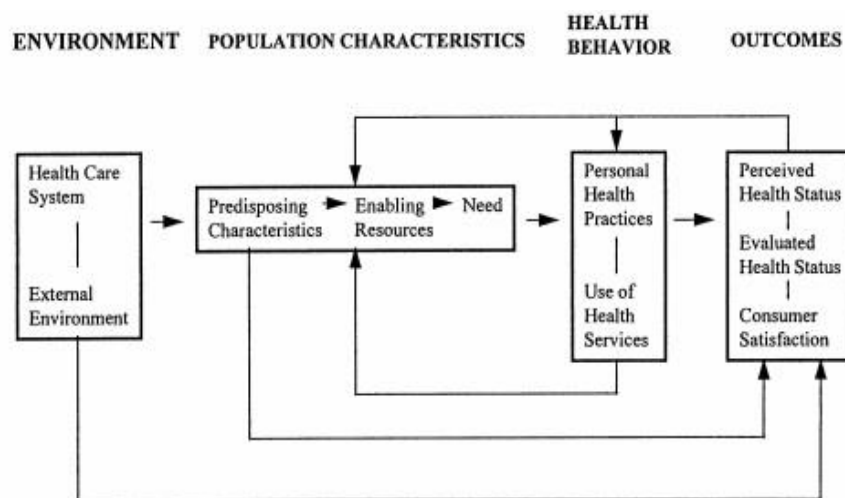


Figure 2.2 Anderson's phase 4 model of health services utilization

Source: Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of health and social behavior*, 1-10.

While eliminating institutional barriers to care is an essential element in the reduction of health disparities, understanding current health utilization practices within the existing institutions is essential to creating a health care system that is responsive to the needs of minority and lower socioeconomic status persons. Addressing self-imposed barriers to mental health care is also a critical part of this effort to understand inequitable utilization. Therefore, a quantitative analysis was undertaken to examine the treatment-seeking behavior of a sample of low-socioeconomic status Medicaid beneficiaries for a mental health treatment. This paper reports findings regarding disparities in treatment-seeking behavior by race, sex, age, education level, and mental health status. The hypothesis was that those respondents reporting difficulty accessing transportation to health care would be less likely to seek treatment for a mental health disorder, regardless of race, when controlling for respondent self-rated mental health status.

2.3: Data and Methods

The data for this analysis is derived from the 2012 North Carolina Medicaid Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. Medicaid is the program administered by states to provide health insurance for certain qualifying low-income residents in the United States. In 1991, the federal government granted a 1915(b) waiver⁵ to the state of North Carolina to initiate a managed care pilot program based on the primary care case management model⁶ in their state Medicaid program. This initial pilot program, titled Carolina ACCESS, operated in five counties until it was

⁵ A 1915(b) waiver allows a state to contract with one or more providers to treat its Medicaid beneficiaries in pursuit of cost savings. Medicaid beneficiaries are usually restricted to receiving services from that provider.

⁶ Primary Care Case Management models require that patients be assigned a primary care provider to manage the care of the patients assigned to them in exchange for a nominal monthly management fee. Services provided by the physician are paid at discounted rates and additional specialty care must be approved by the primary care provider.

expanded statewide in 1998. Today there are 14 managed care networks, collectively known as Community Care of North Carolina (CCNC), operating within the state to deliver care to the North Carolina's Medicaid beneficiaries. CCNC uses a system of medical homes and care managers to identify patients with chronic conditions or at risk for these conditions and coordinate care among specialist providers, provide patient education related to these conditions, and ensure the patient remains accountable to their treatment plan. CCNC's care model includes the identification, evaluation, treatment, and management of patients with behavioral health conditions such as depression and anxiety in the primary care system. CCNC has been awarded the Wellness Frontiers Award and the Annie E. Casey Innovations Award and has been recognized as a model for other states seeking to improve the care delivery systems and/or reduce costs within their own Medicaid programs. The recognition of CCNC as a national model as well as an emphasis on treating behavioral, as well as physical health conditions in the primary care system, makes North Carolina Medicaid beneficiaries an ideal population for this study.

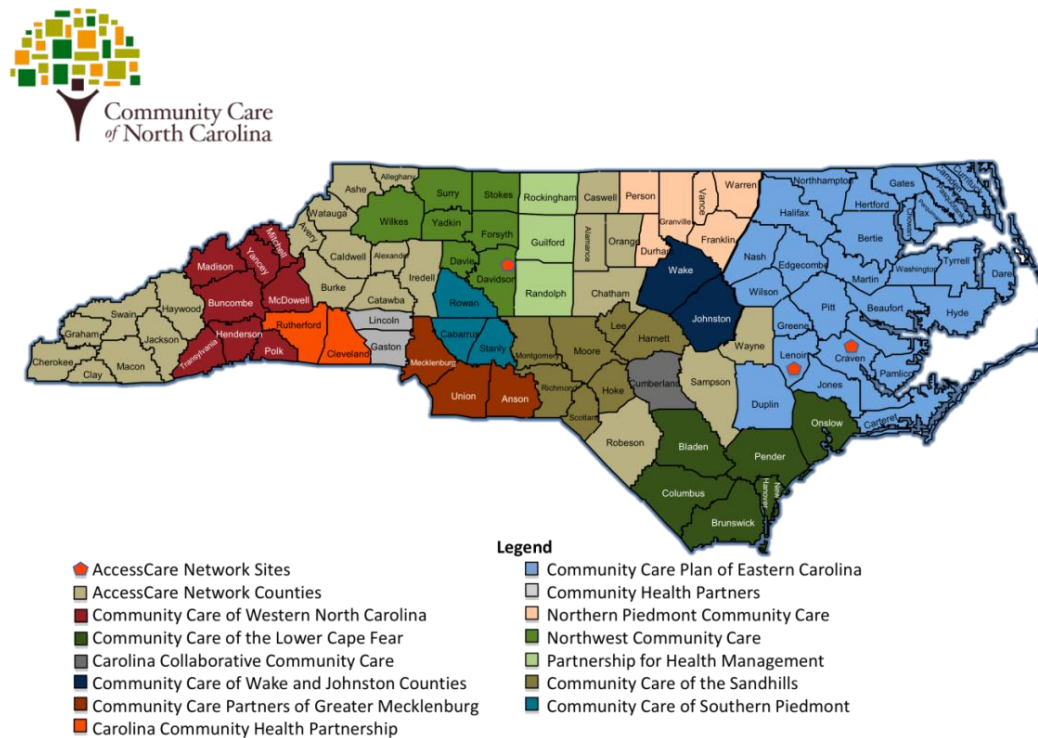


Figure 2.3: Community Care of North Carolina Network Map

Source: *Community Care of North Carolina*.(2012). Retrieved from: <https://www.communitycarenc.org/elements/media/files/ccnc-network-county-map-pdf.pdf>

In order to comply with Section 1915(b) of Title XIX of the Social Security Act (42 U.S.C. §1915(b)) and Section 4705 of the Balanced Budget Act of 1997 (Pub. L. 105-33), both of which mandate quality standards,⁷ North Carolina has adopted the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey to assess Medicaid patient experiences with a variety of facets of the managed care system.

⁷ 42 U.S.C. §1915(b) mandates that a managed care system be of “adequate” quality while Pub. L. 105-33 §4705 mandates that states that exercise the option to use a managed care system develop and implement a quality assurance and improvement strategy inclusive of access standards, other aspects of care and service, monitoring procedures, and periodic review.

The sampling frame for the survey consisted of non-institutionalized adults enrolled⁸ for at least six months in Community Care of North Carolina and enrolled in at least one of the following programs:

Temporary Assistance to Needy Families (TANF)

Medicaid to Families with Dependent Children (M-AF)

Medicaid to the Blind (M-AB)

Medicaid to the Disabled (M-AD)

Aid to the Blind Medicaid Assistance (MSB)

Supplemental Security Income (SSI)

Qualified Medicare Beneficiaries (QMB)

Medicaid for the Aged

This frame consisted of 148,140 adults in 2012. North Carolina Medicaid administrators provided eligibility files for adults meeting the inclusion criteria for possible inclusion in the sample. Due to the network-based structure of CCNC, a stratified random sampling technique was employed to ensure adequate network representativeness. The goal was to obtain at least 200 completed surveys from each of the 14 CCNC networks to achieve statistical power in the analyses. Clearwater Research, Inc. completed survey interviews with 3,202 adult Medicaid beneficiaries using the CAHPS 4.0 survey instrument⁹ in English and Spanish between July 5, 2012 and September 20, 2012 (Brandon, Smith, Hampton, Carnes & Tripp, 2014).

⁸ The number of adults enrolled in at least one of these programs at the time of data collection numbered 522,748 in 2012.

⁹ The 2012 CAHPS 4.0 survey instrument utilized has been included as Appendix B.

A controlled multivariate logistic regression model is employed to analyze whether access limitations play a role in mental health treatment-seeking behavior. The analysis uses as its main independent variables whether or not the respondent needed help with transportation and, for those that needed help, the degree of help with transportation that the respondent received. The independent access variable is operationalized by the use of question numbers 63a and 63b in the adult survey which read: "in the last 6 months, did you need help from a non-family member to get to a medical appointment or to get a prescription filled?" and "in the last 6 months, if you needed help from a non-family member to get to a medical appointment or to get a prescription filled, how often did you get it?" respectively. The mental health status control measure is operationalized by the use of question number 16 in the adult survey which read: "In general, how would you rate your overall mental or emotional health?" Respondents were asked to choose between "Excellent, Very Good, Good, Fair, and Poor to indicate their subjective self-rated mental health status. An independence control measure is operationalized by the use of question number 70 in the adult survey which read: "Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?"

Given that some social factors are experienced by all persons of lower socioeconomic status while some social factors that contribute to health disparities, particularly in mental health, such as prevailing community attitudes and stigma are isolated among those of racial minority status it is appropriate to compare differences across races within a given socioeconomic status. While insurance and income, to a certain extent, were controlled for in this analysis by using the Medicaid population in

one state only, the model included highest education level achieved as a socioeconomic status indicator. Additional demographic characteristics such as race, age and sex were also included in the model. The degree of rurality in which the respondent lived at the time of the survey was also included in the model. Degree of rurality was operationalized using the Rural Urban Continuum code assigned by the US Department of Agriculture associated with the county of the respondent. A network variable was included in the model to address potential autocorrelation at the network level.

Lastly, multiplicative interaction terms were added to the model to determine if the impact of respondent race and level of access were moderated by other independent variables in the model.

$$P(\text{MH}) = \frac{\exp((\beta_0 + \beta_1 \text{MHSt} + \beta_2 \text{Sex} + \beta_3 \text{Race} + \beta_4 \text{Educ} + \beta_5 \text{Age} + \beta_6 \text{Acc} + \beta_7 \text{RUCC} + \beta_8 \text{Ind} + \beta_9 (\text{Race} * \text{Acc} * \text{RUCC})))}{(1 + \exp((\beta_0 + \beta_1 \text{MHSt} + \beta_2 \text{Sex} + \beta_3 \text{Race} + \beta_4 \text{Educ} + \beta_5 \text{Age} + \beta_6 \text{Acc} + \beta_7 \text{RUCC} + \beta_8 \text{Ind} + \beta_9 (\text{Race} * \text{Acc} * \text{RUCC}))))}$$

where $p(\text{MH})$ is the probability that the respondent sought mental health treatment

MHSt is the respondent's mental health status

Sex is the sex of the respondent

Race is the race of the respondent

Educ is the highest level of education respondent has completed

Age is the age of the respondent at the time of the survey

Acc is the level of transportation help received by the respondent

RUCC is the degree of rurality of the respondent's address

Ind is whether the respondent has a condition that limits their independence

Table 2.1 presents the descriptive statistics of the variables included in the analysis.

TABLE 2.1: Descriptive statistics of variables used in analyses

Variable	Observations	Mean	Min	Max
Network	3202		1003	2007
Mental Health Rating	2578	3.07	1 (Excellent)	5 (Poor)
Treatment or Counseling	2578	.22	0 (No)	1 (Yes)
Independence	3122	.56	0 (No)	1 (Yes)
Age	3202	50.74	19	95
Sex	3202	.31	0 (Female)	1 (Male)
Rurality	3202	3.07	1 (Urban)	9 (Rural)
White	2970	.58	0 (Black)	1 (White)
Education	3178	1.86	1 (Less than HS)	4 (College Graduate)
Transportation Help Received	3128	4.11	1 (Never)	5 (Did Not Need Help)

2.4: Results

Table 2.2 presents the demographic distribution of respondents who engaged in mental health treatment seeking behavior. A higher proportion of female respondents than male respondents sought mental health treatment. A higher proportion of respondents who are college educated sought mental health treatment than those respondents who had not attended college. Also, consistent with the literature is the finding that a lower proportion of Black respondents than White respondents sought mental health treatment.

TABLE 2.2: Demographic distribution of respondents who sought mental health treatment

Variable	Percentage	Sought MH Treatment	Total
Male	18.3%	135	737
Female	23.8%	439	1841
White	25.5%	360	1405
Black	16.6%	165	993
Less than High School Education	18.5%	191	1035
High School Graduate	19.9%	172	863
Some College	32.1%	176	548
College Graduate	31.0%	35	113
Age 19-29	23.4%	67	286
Age 30-39	30.6%	107	350
Age 40-49	29.6%	139	470
Age 50-59	26.7%	178	666
Age 60-69	15.0%	77	512
Age 70-79	2.7%	6	219
Age 80-89	0.0%	0	73
Age 90-96	0.0%	0	3

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2578

Evidence suggests that mental health disorders are experienced differently by men and women, Blacks and Whites, and low and high socioeconomic status populations (Rosenfield & Mouzon, 2013). Men tend to experience the kind of mental health disorders that have a negative effect on those around them such as aggressiveness, antisocial behavior, and substance abuse. These experiences with mental health disorders coupled with male gender socialization result in differences in help seeking behavior (Addis & Mahalik, 2003).

Due to racial residential segregation resulting from low social capital and lack of access to employment, educational, and economic resources, Blacks often live in impoverished neighborhoods (Williams & Collins, 2004). Lack of social capital has particular effects for men who have been oriented to valued social roles in society such as

provider (Watkins, Walker & Griffith, 2010). The provider role encompasses the role of provider for offspring in the family and in the spousal relationship as well as provider of professional accomplishments in employment relationships. The incapability to contribute as provider due to marginalization has deleterious effects for the mental health of Black men in particular. This inability to self-actualize due to institutional restrictions can result in the outwardly directed behaviors associated with mental health disorders that are disproportionately experienced by Black men. This results in increased familial stressors experienced by Black women.

The overrepresentation of Blacks in the low socioeconomic status population coupled with increased rates of depressive mental health disorders experienced by women relative to men puts Black women at particularly high risk for experiencing mental health disorders (Kohn & Hudson, 2002). However, higher prevalence of these depressive mental health disorders is not borne out in mental health services research (Williams, Gonzalez, Neighbors, Nesse, Abelson, Sweetman & Jackson, 2007). The increased social, economic, and familial pressure experienced by Black women may be buffered by characteristics that have been found to be amplified in Black women, including a strong sense of racial identity and other culturally based coping mechanisms (Knight, Silverstein, McCallum & Fox, 2000). Table 2.3 reports the results of how intersectionality of race and gender affect both mental health treatment seeking behavior and self-rated mental health status.

Table 2.3 Intersectionality of race and gender in mental health status and mental health treatment seeking behavior in low-income Medicaid beneficiaries

Variable	Sought MH Treatment	Mental Health Status				
		Ex	VG	Good	Fair	Poor
Male	18.3%	12.9%	14.4%	28.0%	29.3%	15.5%
Female	23.8%	13.2%	18.0%	30.6%	27.2%	11.0%
White	25.4%	11.5%	17.6%	29.3%	28.6%	13.0%
Black	16.6%	15.1%	15.4%	32.2%	26.8%	10.4%
White Males	20.2%	9.7%	17.0%	26.4%	31.3%	15.6%
Black Males	15.6%	16.9%	9.8%	31.5%	26.8%	14.9%
White Females	27.3%	12.1%	17.8%	30.3%	27.6%	12.1%
Black Females	17.0%	14.4%	17.8%	32.5%	26.8%	8.5%

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2578

Table 2.4 presents the results from the multivariate controlled logistic regression analysis. The results of the regression do not necessarily support the hypothesis that those with less access to transportation are less likely to seek mental health services, though this relationship may be moderated by other factors in some cases. The significant variables in the model are mental health status, sex, race, education level, age, transportation access, and independence.

The overall model is statistically significant with a p-value of less than 0.001. The results of the analysis do not show that those with less transportation access have a decreased probability of having sought mental health services for a personal or family problem. In fact, those respondents that never got the help they needed with transportation access have a 601% increase in having sought mental health treatment while those respondents who only sometimes received the transportation help they

needed have a 298% increase in having sought mental health treatment in the six months preceding the survey, as compared to those survey respondents who did not need any help with transportation.

Male respondents have a 36.9% decrease in the odds of having sought mental health treatment in the six months preceding the survey as compared to female respondents. For every year increase in age the odds of having sought mental health treatment decrease by 3%. Those respondents who report limited independence have a 112% increase in the odds of having sought mental health treatment as compared to those who are independent.

Consistent with the literature, the more educated a person is the more likely they are to have been able to recognize the issue as a mental health issue and seek mental health treatment for that issue. Those respondents with a high school education have a 37% increase in the odds of having sought mental health treatment as compared to those respondents with less than a high school education. Those respondents who attended college but did not receive a degree have a 157% increase in the odds of having sought mental health care as compared to those respondents with less than a high school education. Those respondents who graduated from college have a 250% increase in the odds of having sought mental health treatment as compared to those respondents with less than a high school education.

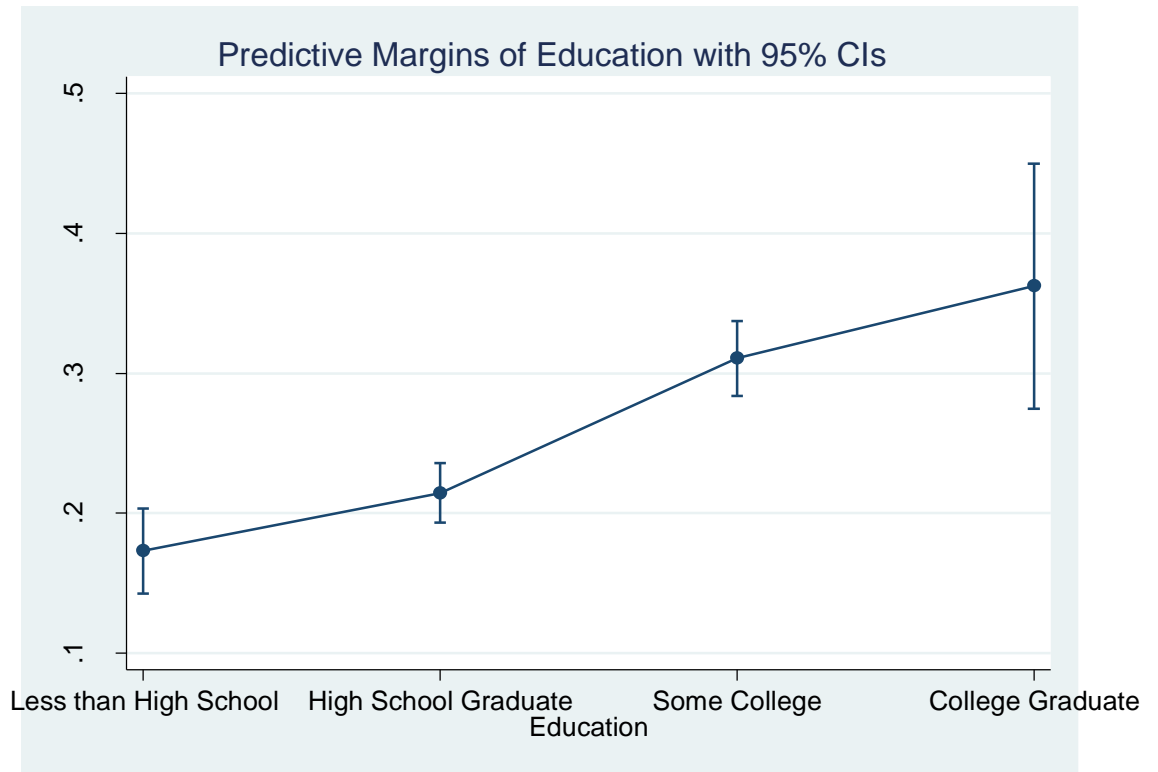


FIGURE 2.4: Predictive margins of educational attainment

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
 $n=2262$

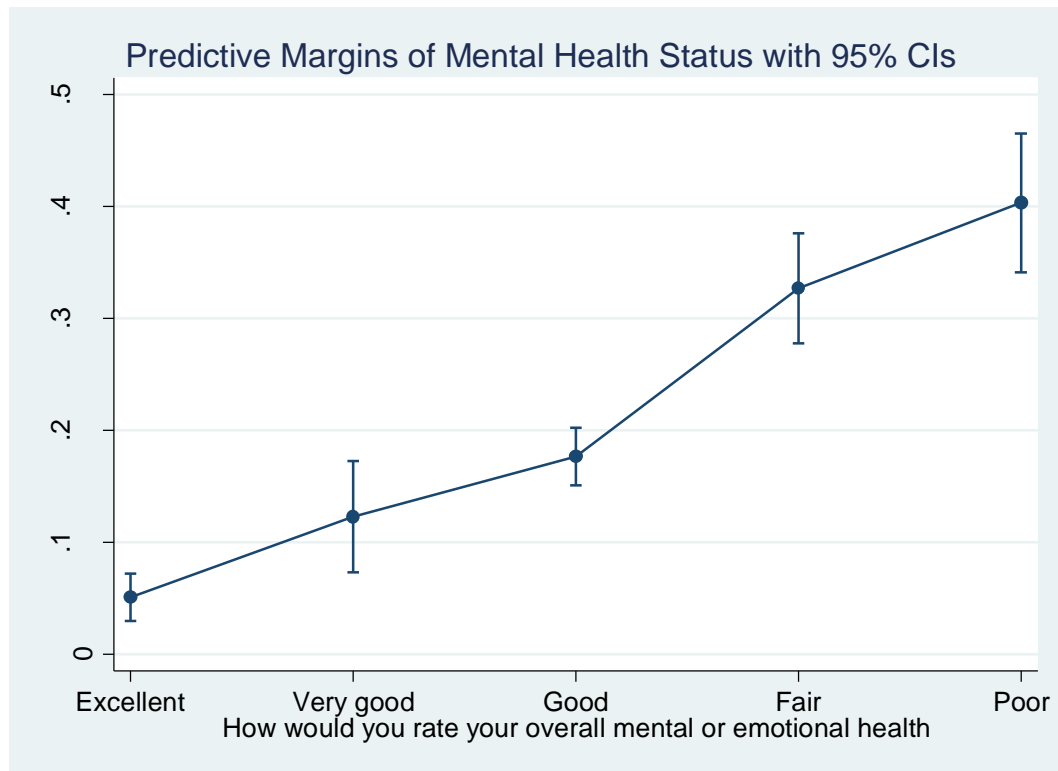
TABLE 2.4: Logistic regression: Access and mental health treatment

Variable	Coefficient	Odds Ratio	Std. Error
Mental Health Status	.677***	1.968	.069
Sex (Male)	-.461**	.631	-.147
Race (White)	.732***	2.062	.198
Less than High School Education vs.			
High School Graduate	.312*	1.366	.136
Some College	.943***	2.568	.159
College Graduate	1.254***	3.504	.296
Age	-.036***	.965	.004
Did Not Need Transportation Help vs.			
Never Got Transportation Help	1.947***	7.010	.487
Sometimes Got Transportation Help	.482	1.619	.309
Usually Got Transportation Help	1.381***		.366
Always Got Transportation Help	.190	1.210	.339
Degree of Rurality	-.109	.896	.068
Independence	.753	2.124	.088
Race & Degree of Rurality	.027	1.027	.064
Race & Never Got Transportation	-1.664*	.189	.730
Race & Sometimes Got Transportation	.114	1.121	.398
Race & Usually Got Transportation Help	-.765	.465	.659
Race & Always Got Transportation Help	.297	1.346	.401
Degree of Rurality & Never Got Transportation	-.210	.811	.205
Degree of Rurality & Sometimes Got Transportation	.181*	1.199	.078
Degree of Rurality & Usually Got Transportation Help	-.320	.726	.190
Degree of Rurality & Always Got Transportation Help	.149*	1.161	.073
Degree of Rurality & Never Got Transportation & Race	.229	1.257	.297
Degree of Rurality & Sometimes Got Transportation & Race	-.065	.937	.098
Degree of Rurality & Usually Got Transportation Help & Race	.377	1.460	.296
Degree of Rurality & Always Got Transportation Help & Race	-.207	.812	.121
Constant	-3.076***	.046	.408

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2262

****p*< .001 ***p*< .01 **p*< .05

As is to be expected from the interpretation of the logistic regression coefficients, respondents who are able to assess their mental health status as less than ideal are more likely to have sought mental health treatment compared to those respondents who rate their mental health status as excellent while controlling for other characteristics. For every one unit degradation in mental health status the odds of having sought mental health treatment increase by 97%.



Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2578

FIGURE 2.5: Predictive margins of mental health status

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

The more interesting findings in this study come as a result of the analysis of the effect of the main independent variable, transportation access. The marginal effects of transportation access have differential effects based on the respondent's race and their degree of rurality as can be seen in Figures 2.6 and 2.7. Black respondents who either did not need help with transportation access, never got help with transportation access, or usually got help with transportation access had a lower probability of having sought mental health treatment in more rural areas than in more urban areas. Black respondents who always got the transportation help they needed or sometimes got the transportation help they needed had a lower probability of having sought mental health treatment in more urban areas than in more rural areas.

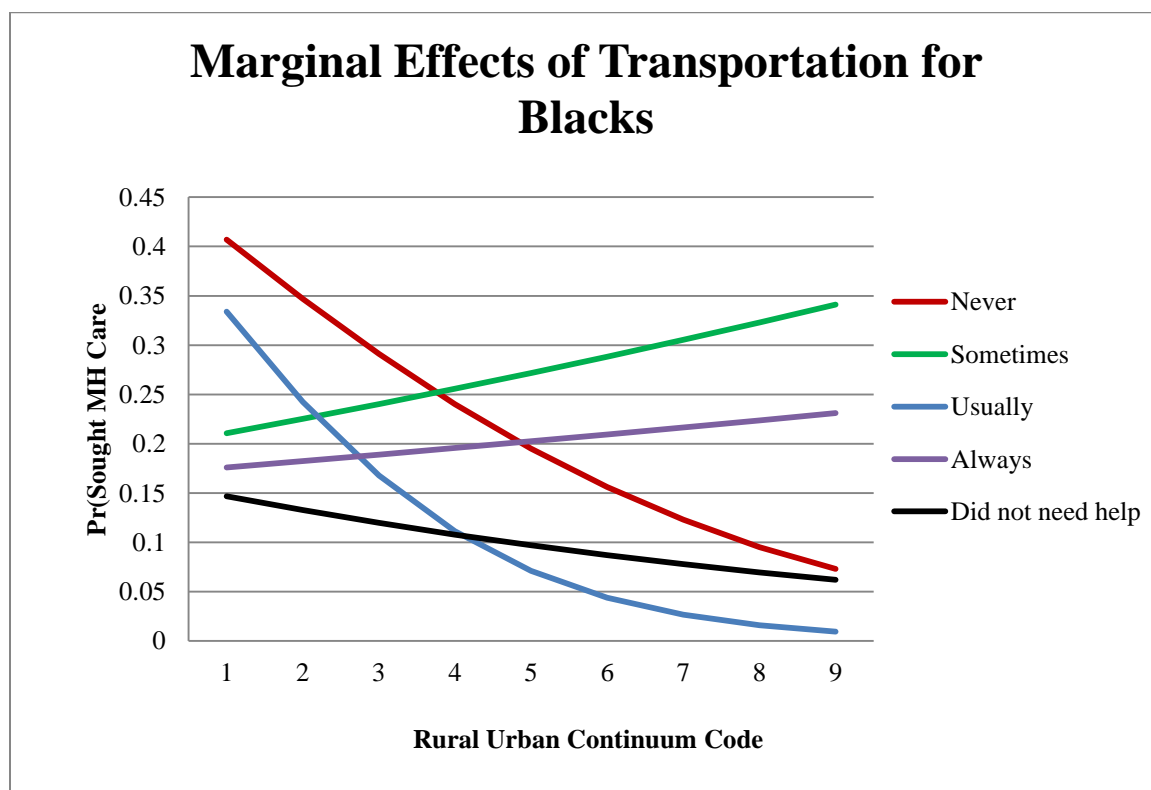


FIGURE 2.6: Marginal effect of transportation access for Blacks

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2290

White respondents generally had a lower probability of having sought mental health treatment in more rural areas than in more urban areas across the different levels of transportation access with the exception of those who only sometimes got help with transportation access.

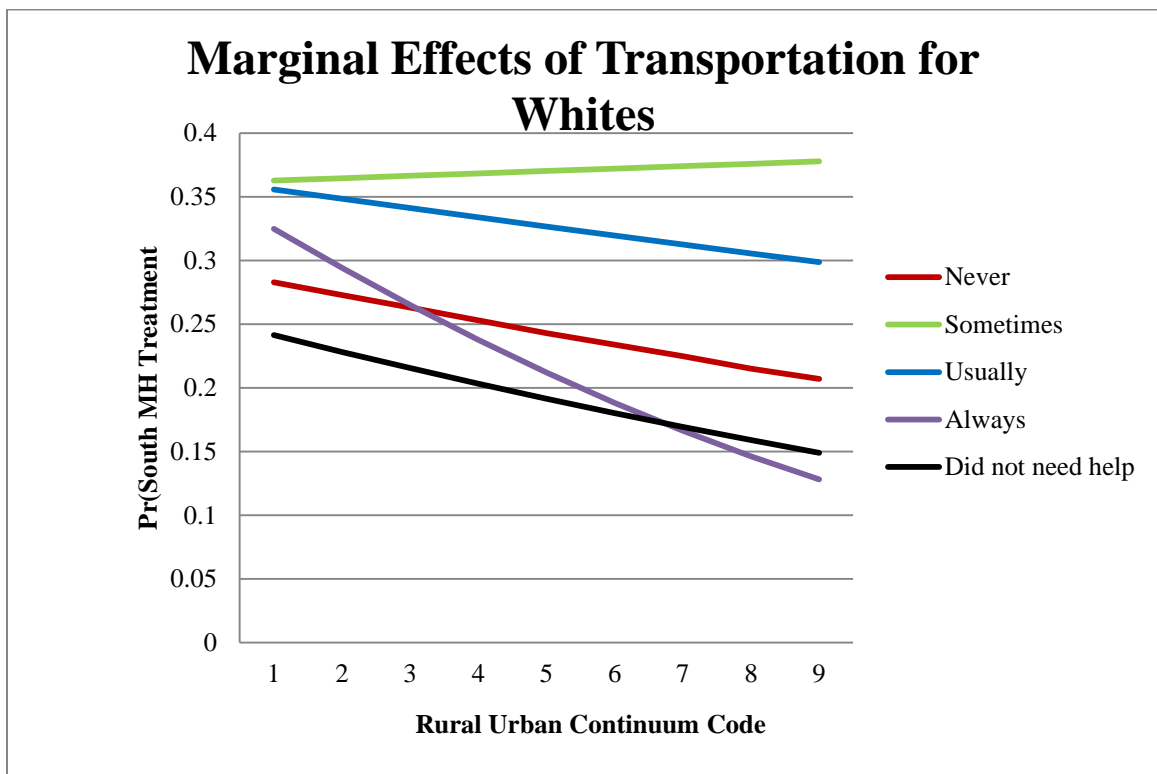


FIGURE 2.7: Marginal effect of transportation for Whites

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2290

The difference in the marginal effects of transportation access reflect a change in the probability of seeking mental health treatment for each level of transportation access across both blacks and Whites.

TABLE 2.5: Selected marginal effects of transportation access on mental health treatment seeking

RUCC		Never	Sometimes	Usually	Always	Did not need help
1	White	0.283	0.362	0.355	0.324	0.241
	Blacks	0.407	0.210	0.333	0.175	0.146
	Change	0.124	-0.152	-0.022	-0.148	-0.094
2	White	0.273	0.364	0.348	0.294	0.228
	Blacks	0.347	0.225	0.242	0.182	0.132
	Change	0.074	-0.139	-0.106	-0.111	-0.095
3	White	0.263	0.366	0.341	0.265	0.215
	Blacks	0.291	0.240	0.167	0.188	0.119
	Change	0.028	-0.126	-0.173	-0.076	-0.095
4	White	0.253	0.3683	0.333	0.237	0.203
	Blacks	0.240	0.255	0.111	0.195	0.107
	Change	-0.013	-0.112	-0.222	-0.042	-0.095
5	White	0.243	0.370	0.326	0.212	0.191
	Blacks	0.195	0.271	0.070	0.202	0.096
	Change	-0.048	-0.098	-0.255	-0.009	-0.094
6	White	0.234	0.372	0.319	0.188	0.180
	Blacks	0.156	0.288	0.043	0.209	0.086
	Change	-0.078	-0.083	-0.275	0.021	-0.093
7	White	0.225	0.374	0.312	0.166	0.169
	Blacks	0.123	0.305	0.026	0.216	0.077
	Change	-0.102	-0.068	-0.286	0.050	-0.091
8	White	0.215	0.375	0.305	0.146	0.159
	Blacks	0.095	0.323	0.015	0.223	0.069
	Change	-0.12	-0.052	-0.289	0.077	-0.089
9	White	0.207	0.377	0.298	0.128	0.149
	Blacks	0.073	0.341	0.009	0.231	0.061
	Change	-0.134	-0.036	-0.289	0.103	-0.087

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
n=2290

The marginal effects are shown in Table 2.5 and Figure 2.8. The marginal effects are the differences between Whites and Blacks in the probability of having sought mental health treatment for different levels of access. The rows labeled Whites and Blacks indicate the probabilities that these populations will have sought mental health treatment according to their level of transportation access and the degree of rurality in which they reside. The marginal effects are represented by the rows labeled “change.” These are the differences between Whites and Blacks in their probability of mental health treatment seeking. In more urban areas Blacks who never received help with transportation access had a higher probability of having sought mental health treatment than Whites in more urban areas while Blacks in more rural areas had a lower probability of having sought mental health treatment than Whites in the more rural areas. Black respondents who always received help with transportation access were more likely to have sought mental health treatment in more rural areas than Whites in the more rural areas but Black respondents who always received transportation access in more urban areas were less likely than Whites in urban areas to have sought mental health treatment. In the cases of all of the other levels of transportation access across the spectrum on rurality, Blacks had a lower probability of having sought mental health care than Whites.

This interesting finding is better revealed in Figure 2.8. Those respondents who did not need help with transportation access had about the same probability of having sought mental health care across all levels of rurality in which they resided. Those respondents who never or usually received help with transportation access had a higher probability of having sought mental health treatment in more urban areas than in more rural areas. Those respondents who always or sometimes received help with transportation access

were less likely to have sought mental health treatment if they lived in a rural area as compared to those residing in more urban areas.

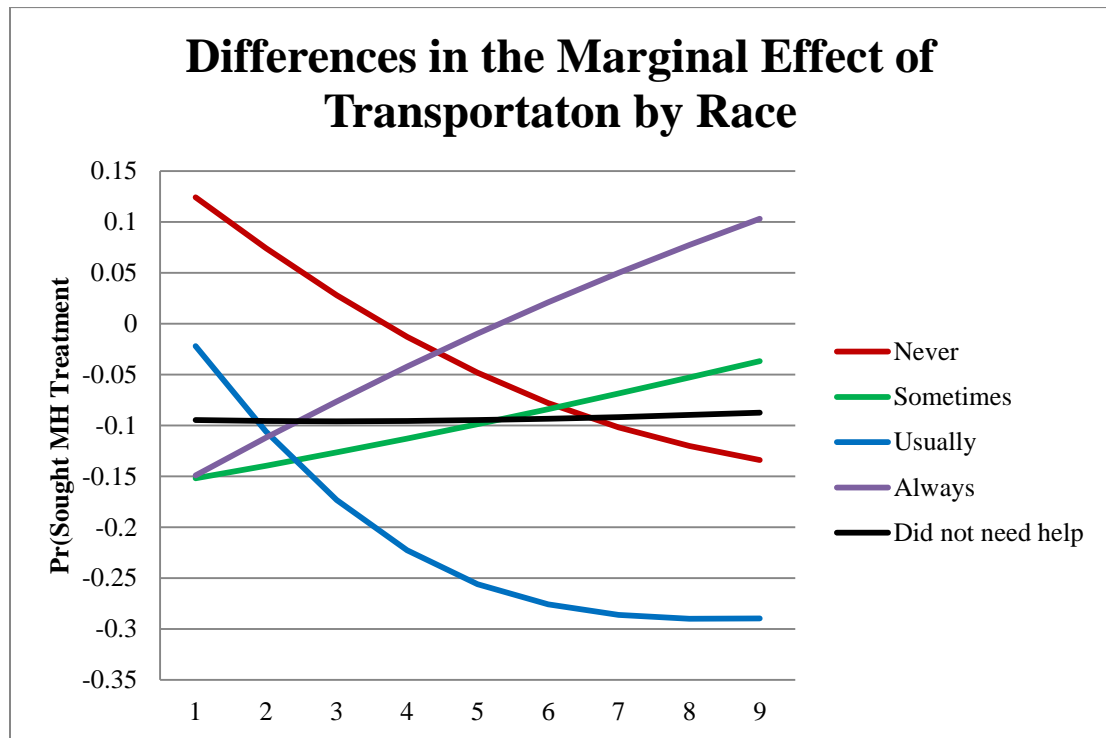


FIGURE 2.8: Marginal effects of transportation access

Note: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems
 $n=2290$

2.5 Discussion

There are several important points that have been discovered in this chapter that bear repeating:

- those respondents with diminished mental health status were more likely to have sought mental health treatment;

- those respondents with higher levels of educational attainment were more likely to have sought mental health treatment,
- respondents with a condition that interferes with their community interaction, quality of life, or independence were more likely to have sought mental health treatment;
- Black respondents were less likely than White respondents to have sought mental health treatment with the exception of those in excellent mental health and those residing in suburban areas.

Due to previous analyses that have found that racial differences in health status could be eliminated when socioeconomic status variables were introduced as covariates, scholars have argued that previous research claiming to have found racial disparities when comparing populations across socioeconomic statuses was not a valid way of measuring health disparities. This analysis compares Blacks and Whites within socioeconomic status which is thought to allow for more valid comparison of health status. This analysis lends credence to the argument that within socioeconomic status group racial differences serve as a more valid test of race-based health disparities as compared to those that are measured across socioeconomic status by using institutional analysis to better understand the social conditions that may be having an impact on the low-socioeconomic status population across the racial spectrum.

One of the limitations of this study was the construction of the access variable which does not allow for testing of the effects of different levels of transportation access provided by the immediate family members of the respondent or to distinguish if the respondent did not need help with transportation access because they had a car

themselves. It may be the case that respondents that are mentally healthy are more successful and better able to afford their own car. The mental health status control variable was introduced to address this potentially spurious relationship. An additional limitation of this analysis is the inability to address the source of a respondent's mental health status. It may be the case that a respondent gives themselves a lower mental health status rating because they are under the care of a mental health professional and think that the necessity of treatment renders their mental health status diminished. It may also be the case that someone under the care of a mental health professional for a period of time may have been influenced by an exogenous mental health status rating given to them by this mental health profession. In this analysis there is no way to control for exogenous effects on a person's own perception of their mental health but controlling for mental health status rating across populations that have and have chosen not to seek mental health services does address this.

Research indicates that people with social support in the form of spouses, friends, and family members are in better health than those without a support system with the ability to provide psychological and material support (Cohen & Wills, 1985). According to Cohen and Wills (1985), research suggests "social support is a causal contributor to well-being," (p. 310). Respondents with the greatest unmet need for transportation help are presumed to have been unable to seek mental health or other types of treatment at the same level as they would have if they had their desired level of transportation access. Yet, this population was most likely to have sought mental health treatment while those without an unmet need for transportation access, and presumably able to seek mental health care to their desired level, were less likely to have sought mental health treatment.

This lends credence to the argument by Aneshensel (2009) that psychosocial resources offered in the form of transportation support to doctors' visits may be buffering psychological stressors that disproportionately affect the low-income population making them mentally healthier.

By investigating health disparities in terms of the common attributes of communities with low-socioeconomic status the real harbingers of racial differences in health can be illuminated. In the case of transportation access it may be the case that the informal networks of racially homogenous support systems available to Blacks in urban environments may facilitate the transfer of information regarding mental health disorders throughout a dense network. Additionally, an increased sense of racial identity as a result of living in segregated environments may enhance the sense of social support that Blacks experience and buffer the effects of stressors associated with a low-socioeconomic status existence. Unfortunately, this analysis is limited in that it does not have a true measure of social capital to further investigate this finding.

As health disparities research remains a relatively new area of investigation, rigorous, empirical analyses regarding potential causes of these disparities in all minority populations is evolving, yet incomplete. These studies have evolved from simply comparing Whites and Non-Whites, to carving out minority populations such as African-Americans, Hispanics, American Indians and Alaska Natives, and Asians and Pacific Islanders. However, these population classifications remain imperfect and, like nearly all data collected on race and ethnicity, the categories are not explicitly defined. This analysis is limited in that conventional race, and ethnicity data collection methodology

was utilized to collect the data, however, comparing Whites and Non-Whites is consistent with methods in health disparities literature.

Cultural perceptions of what exactly constitutes a mental health disorder have consequences for help-seeking behavior, stereotypes associated with mental health disorders, and the kinds of treatments that are deemed acceptable for treating these disorders (Link, Phelan, Bresnahan, Stueve, & Pescosolido, 1999). These cultural perceptions of mental health disorders in turn have consequences for the populations that are subject to them by contributing to stereotypes of those populations. Failure by the patient to identify the need for mental health treatment or the patient's refusal or inability to access treatment for a suspected mental health disorder when symptoms are recognized appears to have an influence on the increased rates of hospitalization, longer lengths of stay when hospitalized, and an increased reliance on the criminal justice system for referral to mental health treatment (Chow, Jaffe, & Snowden, 2003).

When so much of the early identification of mental health disorders is dependent on the attitude regarding mental health disorders of the individual, her family, and her community, more must be done to develop providers who are able to create a safe space to communicate about mental health disorders and who can recognize symptoms of mental health disorders in diverse populations. As providers begin to recognize and treat diverse populations for mental health disorders, the literature regarding the risk factors, presentation, and prevalence of mental health disorders in diverse populations will proliferate, facilitating the transfer of this knowledge into the mainstream medical literature. Over time the hope is that the true incidence of mental health disorders may be

recorded for low socioeconomic status and minority populations and true disparities, if identified, may be eliminated.

Future research should investigate the results of this analysis with regards to how increased social support influences mental health status and mental health treatment seeking behavior. An investigation into the results may be conducted through both quantitative and qualitative analysis of those who have sought mental health care and family members and others deemed as social supports of those with mental health issues to determine if those with more psychosocial support have fewer incidences of mental health issues. An additional area of research should investigate the effect of familial and non-familial transportation access on mental health treatment seeking behavior.

CHAPTER 3: THE STATUS SYNDROME REVISITED: A THEORY OF RELATIVE HEALTH

This chapter presents an interesting phenomenon whereby Black Medicaid recipients rated their health as better than White Medicaid recipients, contradicting conventional wisdom. The objective of the chapter is to further investigate the cause of the higher subjective health of Blacks relative to Whites in the study population. The chapter discusses relevant literature from the field of economics that explores the relationship between income and happiness and the purported causal mechanisms for the correlations. The chapter then presents some ways in which reference groups for the respondents in these analyses have been studied. Next the chapter references the theory of relativism in income to develop a theory of relative health. The theory of relative health argues that incorrect perceptions of health status influence health care utilization behavior and that those with an inflated perception of health status will make erroneous utilization decisions that result in health disparities. The chapter ends with an empirical illustration designed to test the theory of relative health and discussion of the results in the context of the suggestions for future research.

3.1: Introduction and Background

In November 2005, the North Carolina Department of Health and Human Services contracted with the University of North Carolina at Charlotte to survey Medicaid beneficiaries regarding their access, utilization, health status, and satisfaction

with the Medicaid program. During the course of the analysis, there were several anomalies that were discovered in the data. The phenomenon that is of interest for this paper is the fact that Whites report the best access to care while Blacks report the worst, yet Blacks report the best health status and lower rates of utilization (Brandon, Schoeps, Sun, and Smith, 2008). Sun (2010) investigated potential causes of these results and concluded that the anomalous findings are robust and was unable to find demographic differences between the Black and White populations in the survey that would account for the findings in the survey. After using multiple measures¹⁰ to investigate population level differences, Sun concluded that Blacks in the survey must actually have statistically better health than Whites.

In the second iteration of the survey conducted by the University of North Carolina at Charlotte in 2012, once again Black Medicaid recipients rated their health as better than White Medicaid recipients (Brandon, Smith, Hampton, Carnes and Tripp, 2014). Encountering this phenomenon twice across two sets of respondents and over two time periods renders it no longer an anomaly. These findings contradict virtually all of the health disparities literature (Adams, Kirzinger, and Martinez, 2012; Centers for Disease Control and Prevention, 2013). This chapter is an attempt to explain these findings by developing a theory of relative health and to offer an illustration of an empirical test of the theory.

The chapter proceeds in four sections. In the second section I review the motivations for my research and present relevant literature from the field of economics.

¹⁰ Sun (2010) used Pearson X^2 tests and three different structural equation models, one using the entire adult sample, one using only respondents with chronic conditions, and one using only respondents without chronic conditions, to test for population level differences that would account for better health among Black Medicaid enrollees.

In the third section I build on the economics literature to develop a theory of relative health and explain how relativism may be exacerbating health disparities. In the fourth section I offer an empirical illustration of the theory of relative health. Finally, I offer insights into the empirical analysis and suggest directions for future research.

3.2: Inequality, Hierarchies, and Relative Health

For a time it was assumed that there was some invisible dividing line in health. It was assumed that this line divided the haves from the have-nots, the rich from the poor, determined who was in good health, who died prematurely, and who was afflicted with certain diseases. In 1978 this dividing line assumption was largely laid to rest when British physician Michael Marmot and colleagues published the results of the first Whitehall Study of British Civil Servants (Marmot, Rose, Shipley, & Hamilton, 1978). The results of that first study (Whitehall I) found that there was no magical cut-off point which determined whether one had good or bad health, but rather a “social gradient” based on the occupational hierarchy of the civil service. Those subjects with civil service jobs lower in the occupational hierarchy were found to be in poorer health. This social gradient determined morbidity and mortality rates that accounted for differences in life expectancy.

Michael Marmot argues that traditional explanations for health disparities such as lack of access to medical care or more unhealthy lifestyles do not fully explain the health gradients that have been found to exist in his research given that everyone in the study population had access to the National Health Service. Instead, Marmot has hypothesized that the increased risk of disease associated with those lower in the social hierarchy is the result of metabolic and endocrine changes over time which are associated with lower

social status. Marmot argues that these physiological changes are due to a lack of autonomy and control in their daily lives, and in some cases inability to integrate into society at large, thus his term “the status syndrome” (Marmot, 2004, p.1).

In this text I propose a theory of relative health, to add to Marmot’s understanding of the status syndrome, based on the theories of relativism that have been advanced in the economics literature. Using the correlations between income and subjective well-being¹¹ as a reference, I examine relativism as a possible explanation for the ongoing existence of health disparities despite our best public policy efforts to eliminate them. Health disparities have been able to persevere despite policies aimed at eliminating racial and ethnic bias in the healthcare system, campaigns designed to educate populations known to suffer from health disparities, and increased financial access to health insurance. While one or more of these interventions would have addressed the physiological changes that Marmot proposes are the cause of health disparities, the health disparities gap has actually been growing over time, as have social inequalities in the United States (Meara, Richards, and Cutler, 2008). The widening gap in health disparities provides additional support for relativism when the social comparison standard of the have-nots is falling further and further behind that of the haves.

¹¹ Following standard practice in the literature, I use subjective well-being and happiness interchangeably.

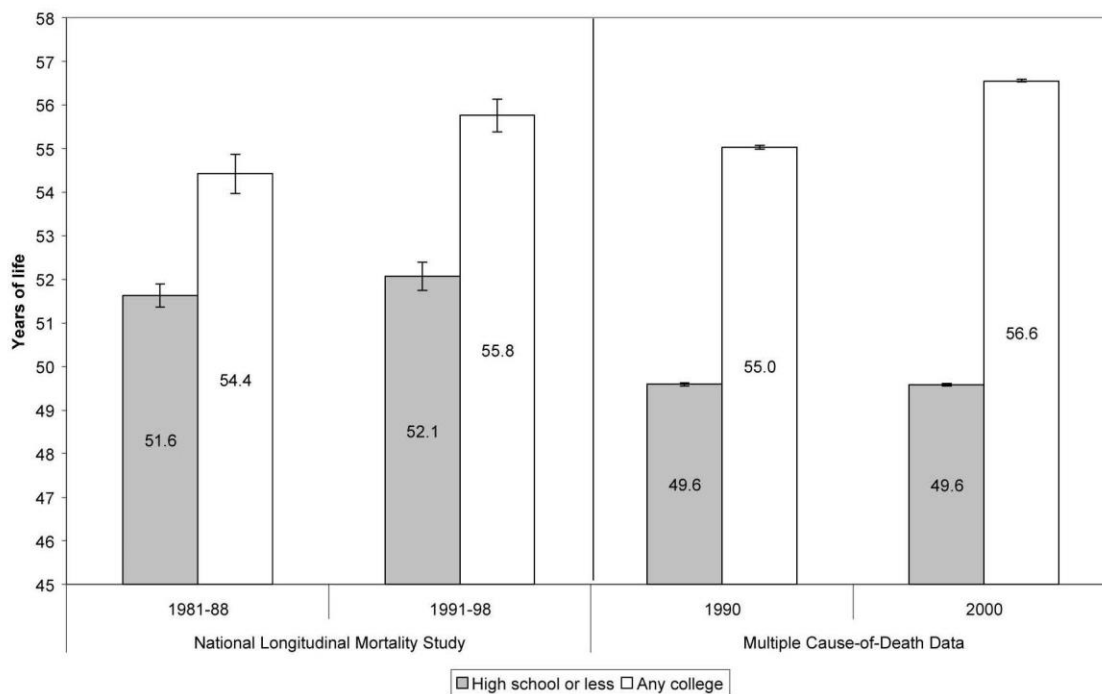


FIGURE 3.1: The widening gap in health disparities over time illustrated by longitudinal analyses of life expectancy by education level at age 25.

Source: Meara, E., Richards, S. & Cutler, D. (2008). The gap gets bigger: Changes in mortality and life expectancy by education, 1981-2000. *Health Affairs*, 27(2), 350-360.

Self-reported subjective health is generally measured as a single item question¹² that registers perceived health status. The measure of subjective health is representative of one's fully integrated conception of their health, inclusive of its "biological, psychological, and social dimensions" (Miilunpalo, Vuori, Oja, Pasanen, & Urponen, 1997, p.517). These self-rated measures of subjective health status can be more predictive of mortality than such measures of medical dimensions of health, such as disease incidence or severity measures. However, few studies assess the validity of self-rated health status measure (a) in the United States, (b) in diverse populations, and (c) in the

¹² The subjective health measure in the CAHPS 4.0 instrument was also measured as a single item question reading "In general, how would you rate your overall health?"

non-elderly population. A review of the literature assessing self-rated health status in 1997 found just 27 such studies, with fewer than half coming from the United States (Idler & Benyamini, 1997). Today, there remains a lack of research on the validity of the self-rated health status measure in the context of the unique socioeconomic and sociodemographic landscape of the United States. The research that does exist challenges the conventional wisdom of using the self-rated health status measure in diverse populations and urges caution when the self-rated health status measure is used in research, clinical, and policy decision-making (Dowd & Zajacova, 2007; Franks, Gold & Fiscella, 2003).

3.2.2 Relative Income and Easterlin's Paradox

This section begins by providing a brief overview of the previous work in economics related to the correlation between income and subjective well-being. Next I will discuss a paradoxical element in the relationship between income and happiness that has birthed a new generation of theories about the nature of these relationships. Then I will discuss reference groups and how they impact subjective evaluations of well-being. Finally I will apply this body of work to subjective health ratings and hypothesize how relative health may be contributing to health disparities.

A number of studies have found a positive correlation between an individual's absolute income and their perceived happiness (Clark, Frijters, & Shields, 2008; Diener, Sandvik, Seidlitz, & Diener, 1993; Easterlin, 1974). While the income and happiness correlation has come to be widely accepted, the nature of the relationship has long been the subject of debate in the social science disciplines (Veenhoven, 1991). The debate has been fueled by peculiar findings in Easterlin's (1974) seminal work on the relationship

between income and happiness. Easterlin found that despite real income gains over the course of his study, there were no corresponding increases in reported happiness levels.

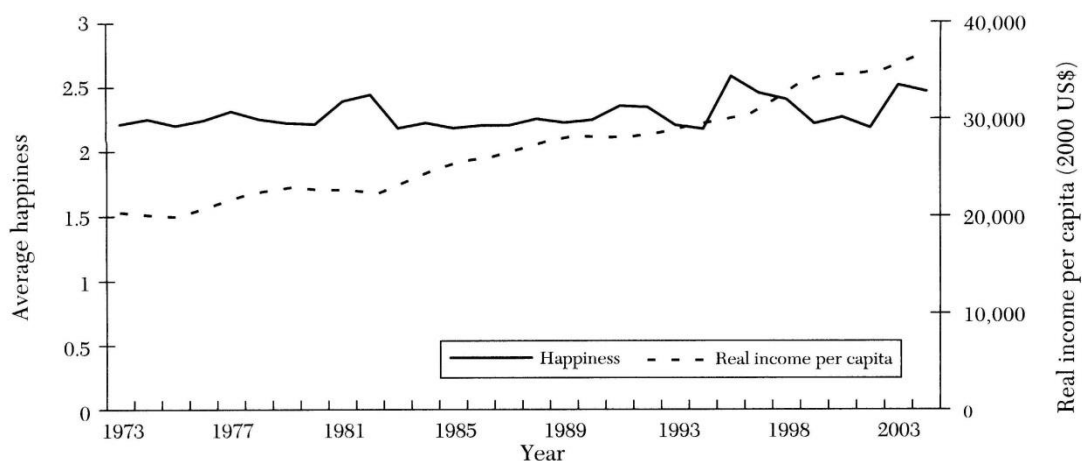


Figure 3.2 Happiness and income per capita in the United States, 1973-2004

Source: Clark, A.E., Frijters, P., & Shields, M.A. (2008). Relative income, happiness, and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature*, 46(1), 95-144.

Additionally, differences in well-being between rich and poor countries were found to be small and inconsistent. Lastly, Easterlin found positive correlations between income and happiness within countries. These findings led Easterlin to advance a relativity hypothesis, concluding that increased income does not have a proportionate increase on happiness because people rely on those around them for the social standard by which to compare themselves. These standards are volatile, so as the wealth of the nation increases, so do the minimum requirements to meet the social comparison standard; this

results in no net increase in overall happiness.¹³ This phenomenon has come to be known as the “Easterlin paradox” as is illustrated in Figure 3.2 (Clark, Frijters, & Shields, 2008).

Since the discovery of the Easterlin paradox, one of the most important jobs of relative standards theorists has been to determine to whom people compare themselves in order to make their value judgments and to understand the process by which the comparative social standard is set. Historically, reference groups have been calculated using cohort analysis (Clark, Frijters, & Shields, 2008), but more recent work by Luttmer (2005) and Knight, Song, & Gunatilaka (2009) use geographic proximity as the basis for reference groups. Luttmer (2005) calculated the average income of the local area of his respondents and found that it was negatively correlated with their happiness. In an effort to address confounding and frequency effects, Haggerty (1999) used the range and the skew of the income distribution for each community, rather than mean income, which he suggested may have led to insignificant findings in some previous research. Using cohorts and geographical reference groups is in accordance with Festinger’s (1954) seminal work in social comparison theory, which posits that people are most likely to compare themselves with those who are both similar to themselves as well as close geographically (Diener, 2012; Freund, & Kasten, 2012; Kerr, MacCoun, Kramer, 1996; Thoits, 2011; Valente, 2010). Though not the goal of their research, Knight, Song, & Gunatilaka (2009) were able to validate social comparison theory by asking their respondents to whom they compared themselves. They found that 70% of individuals in their study compared themselves to others in their village. Knight, Song, and Gunatilaka found that relative income was at least twice as important for the respondent’s happiness

¹³ Mean happiness is measured by the average answers to the questions from the United States General Social Survey: Taken all together, how would you say things are these days –would you say that you are (3) very happy, (2) pretty happy, or (1) not too happy?”

as the absolute dollar value of their actual income. These findings have been mirrored in other studies in which respondents were willing to give up absolute income in order to gain status in terms of income relative to others (Haggerty, 1999). These findings have also been replicated in other areas such as: attractiveness, supervisor approval, homes, and cars (Alpizar, Carlsson, & Johansson-Stenman, 2005; Johansson-Stenman, Carlsson, & Daruvala, 2002; Solnick & Hemenway, 1998).

Falk and Knell (2004) integrate psychological literature regarding the motives of the respondent and the reference group that they choose to compare themselves to. Falk and Knell predict that respondents seeking to elevate their own status would compare themselves to a lower status level reference group in an effort to make themselves seem better. Other respondents concerned with improving their own status would compare themselves to a higher status reference group in an effort to set goals to which they can aspire (Diener and Lucas, 2000). The result of incorporating this psychological literature indicate that as one's ability increases, so, too does the status of the reference group to which one compares oneself.

In this section I have described the findings regarding the correlation between income and happiness. I have also summarized the arguments made by economists and psychologists as to how individuals derive utility from their income and create perceptions of their own well-being based on their relative standing, rather than the absolute monetary value of their income. I have presented several methods of deriving reference groups by which individuals compare themselves. In the next section I will use this literature to develop a theory of relative health and explain how health disparities are a likely result of relativism.

3.3 Theory and Hypotheses

As Easterlin and other relative standards scholars have proposed that people develop value judgments based on the income of those around them, I propose that people also develop a standard of health based on the health status of those around them; if they are better off than this standard they will view and subsequently rate themselves as healthier, and if they are worse off, they will view and rate themselves as less healthy as illustrated by Equation 3.1.

EQUATION 3.1:

$$\text{Self-rated health} = \frac{y_{\text{health}}}{y_{\text{health}^*}}$$

where y_{health} is the individual's health

where y_{health^*} is the reference group to which one compares oneself

I hypothesize that these perceptions of health are, in many cases, the determining factor in whether or not someone seeks preventive health services or screening tests that will determine their actual health. Providing the results of the screening tests to the patient offers the health care provider a platform to discuss health status, risk factors for disease and prevention strategies. These discussions then more accurately inform the patient's perception of their health status and the health status of those around them.

When individuals inaccurately perceive their health status as better than it actually is, they may be dissuaded from healthcare utilization that they view as unnecessary because they do not feel sick. The excess death and disease burden that result from these inaccurate perceptions of health contribute to a lowering of the standard of health to which proximate individuals compare themselves. The comparisons by the proximate

individuals then influence their healthcare utilization decisions by impacting their perception of need, a critical component of Anderson's model of health services utilization (Andersen, 1995). Without the assessment for risk factors and discussion of prevention strategies for the leading causes of death, namely cardiovascular disease, cancers, and stroke, many of these individuals will not be diagnosed using a high-quality screening method (Jemal, Siegel, Ward, Hao, Xu, Murray, and Thun, 2008; Selvin and Brett, 2003). Instead some of these individuals will seek care for symptoms associated with advanced stages of these diseases while others will never have the opportunity to seek care at all, dying prematurely as a result of heart attack or stroke. These excess deaths as a result of inaccurate perceptions of one's health are ultimately reported in national statistics on cause of death and life expectancies.

There are several reasons why health misperceptions would disproportionately impact Black low-socioeconomic status individuals rather than having an equal impact on low-socioeconomic individuals of all races. Populations that have experienced historical discrimination and continue to experience present day inequalities in access and treatment such as those with lower educational attainment and minority populations are expected to have lower expectations of their health due to these conditions. The relative health theory predicts that these groups will have lower expectations of their health and will therefore derive a greater perception of their health from a lower level of their actual health.

If Blacks have lower expectations about their health due to historical lack of access to the healthcare system, the relative health theory predicts that they would have a higher perception of their health comparable to those living around them. As discussed

earlier, Festinger's (1954) social comparison theory found that individuals are most likely to compare themselves to those that are perceived as similar and are living in close proximity. Research indicates that income and racial neighborhood segregation are endemic in the United States so health comparisons are more likely to occur within one's own racial group (Williams & Collins, 2001). There are several testable hypotheses that follow from the relative health theory:

Hypothesis 1: Blacks on Medicaid living in neighborhoods with a higher percentage of blacks will have a higher perception of their health as a result of exceeding the social comparison standard of health set by other neighborhood residents.

Hypothesis 2: Medicaid recipients living in a neighborhood with a higher percentage of disabled residents will have a higher perception of their health as a result of exceeding the social comparison standard of health set by other neighborhood residents.

Hypothesis 3: Medicaid recipients living in a neighborhood with a higher median income will have a lower perception of their health as a result of their inability to exceed the social comparison standard of health set by other neighborhood residents.

Hypothesis 4: Medicaid recipients living in a neighborhood where health insurance is less prevalent will have a higher perception of their health as a result of exceeding the social comparison standard of health set by other neighborhood residents.

3.3.1 An alternative hypothesis: Discriminatory labor markets in North Carolina

Income and health have been considered to be potentially endogenous (Clark, Frijters, and Shields, 2008; Ettner, 1996). It is entirely plausible that those individuals who are healthier are able to get and maintain better, well-paying jobs than those who

miss many days of school or work due to illness or disability. *Ceteris paribus*, the endogenous relationship between income and health would affect the Black and White subpopulations in the sample equally. However, there are several factors that may result in a disproportionate number of healthy Blacks on Medicaid. One of these factors is race and gender based signaling. Employers may be utilizing signaling¹⁴ in the labor market to discriminate against Blacks and women when making hiring and wage decisions in North Carolina.

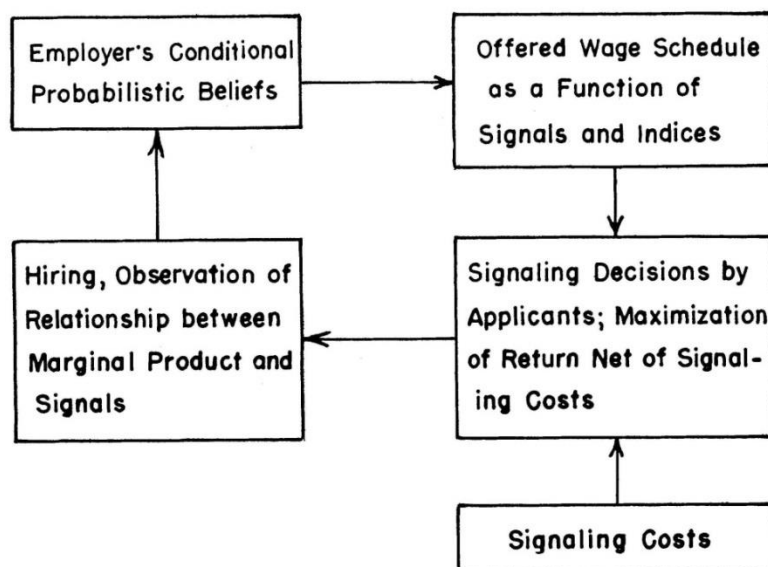


FIGURE 3.3: The cyclical nature of signaling on labor market decisions.

Source: Spence, M. (1973). Job market signaling. *The quarterly journal of Economics*, 87(3), 355-374.

If employers in the labor market are using race and/or gender as a signal of some unobservable, undesirable characteristic (Figure 3.3) it is plausible that healthy Blacks

¹⁴ Signaling theory is rooted in lowering the transaction costs associated with information asymmetries by using some relevant piece of information, a signal, to convey information that could not otherwise be obtained without significant investment. Some signals are costly to obtain in terms of both monetary and opportunity costs such as educational signals, as measured by highest degree achieved, while other signals are assigned, such as race or sex.

and women on Medicaid would remain without gainful employment while Whites and males across the strata of health status would be able to obtain jobs that pay well enough relative to their family size that they no longer qualify for Medicaid.

An additional factor that may result in an increased number of healthy Blacks eligible for Medicaid is lack of access to employment information and opportunities due to decreased social capital in the Black community. Economists have used social capital theory to understand the social context that exists in the job market (Loury, 1977). Differential access to employment opportunities due to inability to create human capital through social capital in the form of better educational, transportation, and information resources within the low-income Black community has been documented (Coleman, 1988). An alternative hypothesis results from signaling and social capital theory resulting in inadequate employment and income opportunities for healthy Blacks:

Hypothesis 5: The objective health of Blacks on Medicaid in the State of North Carolina is better than the objective health of Whites on Medicaid as a result of labor market discrimination or differences in family size relative to income.

3.4 Empirical Illustration

The relative health theory offered here offers a possible explanation as to the cause of Black Medicaid recipients perceiving themselves to be in better health than their White counterparts. A heuristic test is applied to a dataset derived from CAHPS and American Community Survey (ACS) data to offer an empirical illustration of the theory. The State of North Carolina provides a useful backdrop for the empirical illustration of the relative health theory due to the state's restrictive Medicaid eligibility criteria. As of this writing there is no Medicaid eligibility in the state of North Carolina for healthy,

childless adults regardless of their income, or lack thereof. This provides a reference population that is unable to access health resources although their demographic and individual income and socioeconomic characteristics may be similar to those of a Medicaid recipient.

In the present paper the 2012 Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey data for the state of North Carolina was combined with economic and demographic data from the 2008-2012 U.S. Census Bureau American Community Survey (ACS). A stratified random sample of adults enrolled in Temporary Assistance to Needy Families (TANF), Medicaid to Families with Dependent Children (M-AF), Medicaid to the Blind (M-AB), Medicaid to the Disabled (M-AD), Aid to the Blind Medicaid Assistance (MSB), Supplemental Security Income (SSI), Qualified Medicare Beneficiaries (QMB), and Medicaid for the Aged (MAA) for at least six months was surveyed. At least 200 completed surveys were obtained from each of the 14 managed care networks that deliver care to Medicaid beneficiaries in the state of North Carolina. Interview surveys were completed with 3,202 adult Medicaid beneficiaries between July 5, 2012 and September 20, 2012 using the CAHPS 4.0 survey instrument (Brandon, Smith, Hampton, Carnes, and Tripp, 2014).

The American Community Survey includes the basic questions from the decennial census regarding age, sex, race, ethnicity, household dynamics, and housing ownership status as well as more detailed questions on respondent demographics, housing arrangements, social and economic data. Data from the American Community Survey are available in 1, 3, and 5 year estimates. The ACS 5-year estimates incorporate 60 months of collected data, contain the largest sample sizes, and are the most reliable estimates of

the measures in the dataset (U.S. Census Bureau, 2008). The 5-year estimates are also the only way to obtain data for geographic areas with populations of fewer than 20,000 people such as neighborhoods. For each zip code in the dataset, I obtained ACS data on measures of neighborhood disability levels, household income, unemployment, and health insurance data.

Neighborhood population and demographic data were extracted from table DP05. Neighborhood level economic information including income, poverty level statistics and health insurance coverage data was extracted from table DP03. Neighborhood level disability data was extracted from table S1810. This new dataset allows for the derivation of neighborhood level income, employment, health status, and health insurance statistics for the CAHPS respondents.

In order to ensure that the respondent's perceived health as captured by the self-rated health status measure does not simply reflect the respondent's physical health status, a control variable of objective health status must be included in the model. In order to construct an accurate measure of respondent physical health, exploratory factor analysis was conducted. The health status and utilization survey questions were used to construct the latent variable that serves as the control for objective health status. A comparison of the perceived health status and objective health status was conducted to ensure the validity of the results of the empirical illustration and test hypothesis 5: the objective health of Blacks on Medicaid in the State of North Carolina is better than the objective health of Whites on Medicaid.

TABLE 3.1: Health status and utilization questions used in factor analysis

Question	Text ¹⁵
q2	Did you have an emergency medical condition?
q10	Did you have a health problem for which you needed special medical equipment?
q12	Did you have any health problems that needed special therapy?
q14	Did you need someone to come into your home to give you home health care?
q24	Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?
q68	Do you need the help of other persons with your personal care needs?
q69	Do you need help with your routine needs?
q71	In the last 6 months, have you been a patient in a hospital overnight or longer?
q72	In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?
q74	Do you now need or take medicine prescribed by a doctor?

In the factor analysis for objective health status one factor was retained which accounted for 99.3% of the total variance in the health status questions that were included in the factor analysis. The health status factor had an Eigenvalue of 2.34, as illustrated in Figure 3.4.

¹⁵ The full text of the survey questions is available in Appendix A.

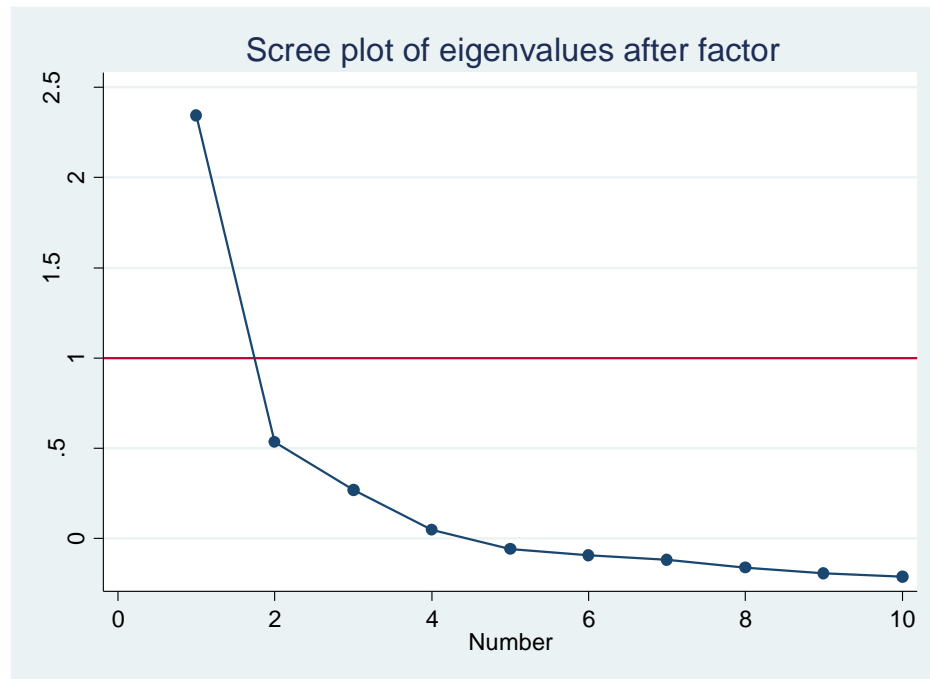


FIGURE 3.4: Scree Plot after factor analysis suggests that one factor should be retained for the analysis.

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

The rotated factor loadings are reported in Table 3.2 for the factor that was retained in this analysis.

TABLE 3.2: Rotated factor loadings on health status factor retained for analysis

Question	Factor 1 (Health Status)
Emergency condition (q2)	0.380
Special equipment (q10)	0.528
Special therapy (q12)	0.335
Home care (q14)	0.590
Disabled (q24)	0.458
Help with personal care (q68)	0.680
Help with routine needs (q69)	0.666
Hospital Patient (q71)	0.345
Chronic Condition (q72)	0.408
Prescription (q74)	0.248

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

TABLE 3.3 Descriptive statistics of variables used in analyses

Variable	Obs	Mean	Min	Max
Race	2970	.58	0 (Black)	1 (White)
Age	3202	50.74	19	95
Education	3178	1.86	1 (Less than HS)	4 (College Graduate)
Health Score	2121	8.10e-10	-2.12	1.33
Perceived Health	3187	3.53	1(Excellent)	5(Poor)
Sex	3202	.31	0 (Female)	1 (Male)
% Black	3131	24.93	0	100
% Disabled	3131	15.72	0	64.5%
% Unemployed	3131	7.39	0	50.7%
Median Income	3130	\$41089.18	\$14,750	\$121,594
% Uninsured	3131	17.85	0	48.8%
% Families below FPL	3131	15.85	0	100%

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems; 2008-2012 U.S. Census Bureau American Community Survey

To summarize, census and CAHPS data were combined in order to test the theory of relativity as it relates to health status. Several potential relative standards effects in health are analyzed: overall health, disability status, neighborhood composition, and

historical expectancy effects. The present analysis has the advantage over previous work in that a new relative health theory was created, and data was gathered to offer an empirical test of the theory rather than as a response to unexpected results to some other empirical test of another hypothesis in a post-hoc manner. This allowed for a more comprehensive set of control variables and neighborhood level variables to be utilized in the analysis to test the relevant hypotheses. These variables included demographic variables and neighborhood level variables based on the respondent's zip code available from the 2012 North Carolina CAHPS survey. The % Black, % disabled, % with no health insurance were measured by responses to the 2008-2012 American Community Survey asking the respondent about their race, disability, and health insurance status. These were operationalized using the proportion of the respondent's neighborhood that was Black, disabled, and without health insurance. The income variable was measured by the median household income in thousands.

3.5 Results

The present study found significant relationships between perceived health and age, race, sex, education level, and neighborhood composition. Ordinal logistic regression¹⁶ was utilized to conduct the analyses involving the hypotheses that included neighborhood level variables given that the dependent variable of perceived health was an ordinal variable ranging from 1 (excellent) to 5 (poor).

¹⁶ One of the principal assumptions of ordinal logistic regression is the parallel slopes assumption which states that the effect of each of the independent variables is constant across each category of the dependent variable (Borooah, 2002). While it is clear that the dependent variable in this regression is ordered, the crux of the theory of relative health advanced in this paper is that the effects of the independent variables are not constant across the values of the dependent variable because the value is dependent on the value of the independent variables which influence the respondent's perception of their health. The alternative for estimating this model is a multinomial logistic regression which was considered, but ultimately the loss of the ordinal data contained in the dependent variable was thought to be too great a sacrifice. The results of the Wald test by Brant (1990) do not indicate a violation of the parallel slopes assumption. Had the parallel slopes assumption been violated, the ordinal logistic regression would have resulted in biased estimates.

TABLE 3.4 Results of ordinal logistic regression for percentage of Black residents' hypothesis on Black subpopulation

		Prob > Chi ²	0.0000
		Pseudo R ²	0.0893
Perceived Health	Coefficient	Odds Ratio	Std. Error
Age	0.008	1.008	.005
Sex (Male)	0.248	1.282	.201
High School Graduate	-.387*	0.679	.110
Some College	-.628**	0.534	.105
College Graduate	-.649*	0.500	.165
Percent Black	-.014**	0.986	.004
Income (Thousands)	-.010	0.990	.007
Health Score	-.893***	0.410	.033
<i>N</i>		749	

TABLE 3.5 Results of ordinal logistic regression for percentage of Black¹⁷ residents' hypothesis on White subpopulation

		Prob > Chi ²	0.0000
		Pseudo R ²	0.1039
Perceived Health	Coefficient	Odds Ratio	Std. Error
Age	0.016***	1.016	.004
Sex (Male)	0.431**	1.540	.200
High School Graduate	-.466***	0.628	.081
Some College	-.722***	0.486	.071
College Graduate	-.967***	0.380	.104
Percent Black	-.001	0.999	.004
Income (Thousands)	-.007	0.993	.005
Health Score	-1.158***	0.314	.024
<i>N</i>		1166	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

¹⁷ It would be more appropriate to combine the logistic regressions testing for the effect of the percentage of Black neighborhood residents for both Black and White Medicaid residents into one model. However, the multicollinearity is so high between race and income variables that race is excluded from the combined model.

The results of the first ordinal logistic regression indicate support for the first hypothesis that Blacks on Medicaid living in neighborhoods with a higher percentage of Blacks will perceive themselves to be healthier than those living in more diverse neighborhoods as a result of exceeding the social comparison standard of health set by other neighborhood residents. The perceived health variable was significant in the analysis to the .01 level indicating that one's perception of one's health is relative based on the social comparison standards of the reference group that one compares oneself. These results are shown in Table 3.4. The results of the ordinal logistic regression using White Medicaid respondents does not indicate that living in a neighborhood with a higher percentage of Black residents has a significant effect on White respondent's perception of their health. The significant variables in the model are education level, neighborhood composition, and respondent health score for Blacks and age, sex, education level, and respondent health score for Whites. For Black Medicaid recipients the odds ratio for high school graduates perceiving themselves to be in poor health is .387 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .679 times lower for high school graduates when the other variables in the model are held constant. This is equivalent to a 32.1% decrease in the odds of reporting poor health. The odds ratio for respondents with some college perceiving themselves to be in poor health is .628 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .534 times lower for respondents with some college education when the other variables in the model are held constant. This is equivalent to a 46.6% decrease

in the odds of reporting poor health. The odds ratio for college graduates perceiving themselves to be in poor health is .694 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .500 times lower for high school graduates when the other variables in the model are held constant. This is equivalent to a 50.0% decrease in the odds of reporting poor health.

For every percentage increase in Black residents in the neighborhood, the odds of a Black respondent perceiving themselves to be in poor health versus fair, good, very good, and excellent health combined are .986 times lower, given the other variables in the model are held constant. If the respondent's neighborhood composition were to change by a one percentage increase in Black residents, the ordered log-odds of the respondent perceiving themselves to be in poor health decrease by .014. This is equivalent to a 1.4% decrease in the odds of reporting poor health.

For every one point increase in the respondent's health score, the odds of the respondent perceiving themselves to be in poor health versus fair, good, very good, and excellent health combined are .410 times lower, given the other variables in the model are held constant. If the respondent's health score were to increase by one, the ordered log-odds of the respondent perceiving themselves to be in poor health decrease by .893. This is equivalent to a 59.0% decrease in the odds of reporting poor health for each one point increase in objective health status.

TABLE 3.6: Results of ordinal logistic regression for relative health hypotheses

Perceived Health	Coefficient	Odds Ratio	Std. Error
Age	0.012***	1.012	.003
Sex (Male)	0.347***	1.414	.099
Race (White)	0.516***	1.668	.089
High School Graduate	-.435***	0.647	.101
Some College	-.674***	0.510	.117
College Graduate	-.833***	0.435	.211
Percent Disabled	-.004	1.004	.012
Income (Thousands)	-.004	.996	.006
Percent No Health Insurance	-.009	.991	.012
Health Score	-1.004***	0.020	.054
<i>N</i>		1915	

Prob > Chi² 0.0000
Pseudo R² 0.0950

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

The results of the third ordinal logistic regression do not indicate support for the remaining relative health hypotheses. These hypotheses are: Medicaid recipients living in areas with a higher percentage of disabled people will have a higher perception of their own health, Medicaid recipients living in areas with a higher median income relative to their own or with a higher percentage of residents without health insurance will have a higher perception of their health as a result of exceeding the social comparison standard of health. This is shown in Table 3.6. The significant variables in the model are age, sex, race, education level and respondent health score. The ordered log odds for a one year increase in age on the perceived health of the respondent are 0.012. The odds ratio for a one year increase in age is 1.012, thus, for a one year increase in age, the odds of perceiving oneself to be in poor health versus fair, good, very good, and excellent health are 1.012 times higher, given the other variables are held constant. This is equivalent to a

1.2% increase in the odds of perceiving oneself to be in poor health for each year increase in respondent age. The ordered log-odds for males is 0.347. The ordered logit for males perceiving themselves to be in poor health is 1.414 higher than for females when the other variables in the model are held constant. This is equivalent to a 41.4% increase in the odds of a male respondent perceiving himself to be in poor health. The ordered log-odds for Whites is 0.516. The odds ratio for White respondents perceiving themselves to be in poor health is 1.668 higher than for Black respondents, given the other variables in the model are held constant. This is equivalent to a 66.8% increase in the odds of a White respondent perceiving their health to be poor compared to a Black respondent.

The ordered logit for high school graduates perceiving themselves to be in poor health is .435 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .647 times lower for high school graduates when the other variables in the model are held constant. This is equivalent to a 35.3% decrease in the odds of reporting poor health. The ordered logit for respondents with some college perceiving themselves to be in poor health is .674 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .510 times lower for respondents with some college education when the other variables in the model are held constant. This is equivalent to a 49.0% decrease in the odds of reporting poor health. The ordered logit for college graduates perceiving themselves to be in poor health is .833 less than those who did not complete high school or the odds of poor perceptions of health versus fair, good, very good, and excellent health are .435 times lower for high school

graduates when the other variables in the model are held constant. This is equivalent to a 56.5% decrease in the odds of reporting poor health.

For every one point increase in the respondent's health score, the odds of the respondent perceiving themselves to be in poor health versus fair, good, very good, and excellent health combined are 1.004 times lower, given the other variables in the model are held constant. If the respondent's health score were to increase by one, the ordered log-odds of the respondent perceiving themselves to be in poor health decrease by .020. This is equivalent to a 63.4% decrease in the odds of reporting poor health for each one point increase in objective health status.

With respect to the alternative hypothesis suggesting that there is discrimination in the North Carolina labor market there is insufficient evidence to support that discrimination in North Carolina labor markets has resulted in more healthy blacks being enrolled in Medicaid. In this case the average objective health status of Blacks on Medicaid in North Carolina is lower than the average objective health status of Whites on Medicaid in North Carolina as shown by the results of the ordinary least squares regression depicted in Table 3.7. This does not indicate support for hypothesis 5: the objective health of Blacks on Medicaid in the State of North Carolina is better than the objective health of Whites on Medicaid as a result of labor market discrimination or differences in family size relative to income. According to the ordinary least squares (OLS) regression analysis of demographic variables on the health score variable, respondent race and age influence the health score. Both of these demographic factors are

found to influence the respondent's health score.¹⁸ Advanced age is associated with a decline in health score while being White is associated with an increase in the respondent's health score. For every one year increase in age, a .021 decrease in the objective health score is expected on average, holding all other variables in the model constant. On average, the predicted health score for Whites would be .329 higher than for Blacks, holding all other variables in the model constant.

TABLE 3.7: Ordinary least squares regression: Health and demographic variables

		Prob > F	0.0000
		Adj R ²	0.0362
Health Score	Coefficient	Std. Error	
Race (White)	.329***	.086	
Age	-.021***	.003	
Sex (Male)	-.102	.097	
High School Graduate	.056	.096	
Some College	-.173	.115	
College Graduate	-.132	.215	
Constant	.557***	.183	
<i>N</i>	1969		

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

These findings of diminished average objective health of Blacks on Medicaid in North Carolina as compared to the average objective health of Whites on Medicaid contradict the initial findings of higher average perceived health of Blacks on Medicaid as compared to the average perceived health of Whites.

¹⁸ The health score was transformed using a cubic transformation to correct for a violation of the assumption of normality. Before the transformation both race and age were significant demographic predictors of respondent health score and the sign of the coefficient was consistent before and after the transformation.

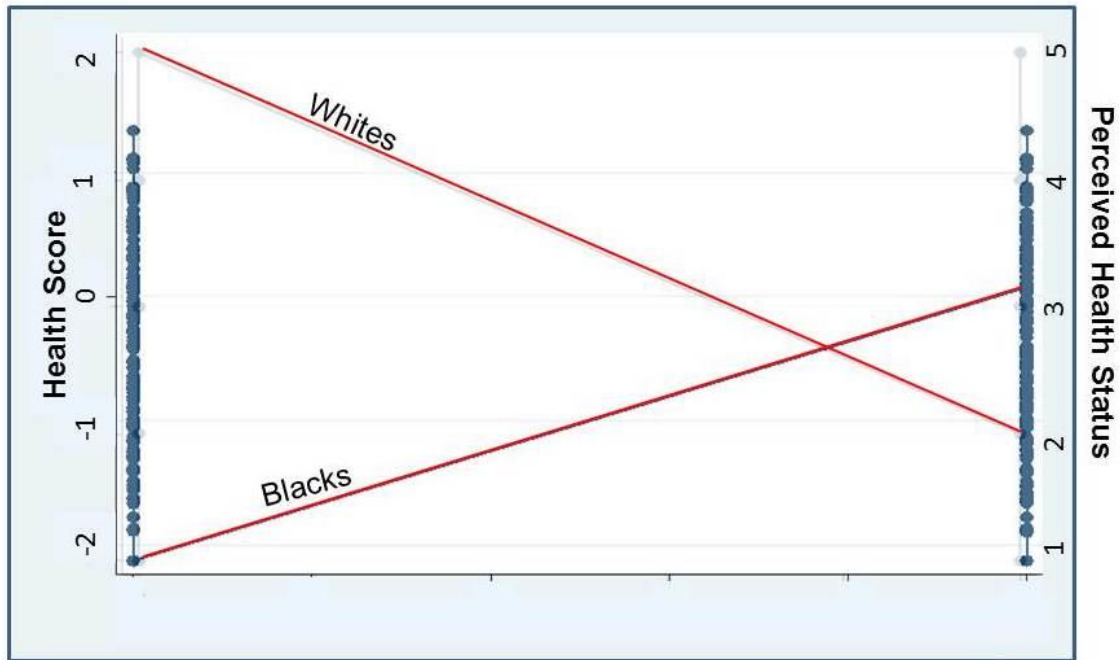


FIGURE 3.5: The relationship between objective health status and perceived health status by race.

Source: 2012 North Carolina Consumer Assessment of Healthcare Providers and Systems

3.6 Discussion

We compare ourselves to others. These relative comparisons impact our internal evaluations of our own quality of life without regard to the objective level of whatever it is we are measuring. These ideas have been applied to areas as diverse as wealth (Cole, Mailath, & Postlewaite, 1995), happiness (Veenhoven, 1991), and intellectual ability (Gladwell, 2013). Though we know it exists in these other areas, a comprehensive theory of relativity has never before been applied to health. This may be due to a reliance on models that are more focused on treating medical conditions. While there is certainly value in the medical model, our inability to fully understand why diseases are discovered

later, treated differently, and have increased mortality in certain populations despite years of concentrated efforts on reducing these disparities ought to have us looking for other possible explanations. By applying the concept of relativity to health, a possible explanation emerges. It may be the case that health disparities are being created, perpetuated, or exacerbated if external factors are affecting internal evaluations of health status and influencing subsequent health behaviors. If one's perceptions of health have a greater impact on health behaviors than does one's actual health status, a necessary component of the approach to combating health disparities will be efforts to target these perceptions.

While perceptions generally, and relativism specifically, have been studied as a possible driver of human behaviors in the economics literature, health researchers are just beginning to discover these phenomena. Dorsey, Eberhardt, and Ogden (2009) investigated differences in weight misperception by ethnicity in a nationally representative sample. Their results indicate that Blacks are more likely than Whites to perceive themselves as healthy when they were in fact overweight. These findings have been replicated in populations known to be suffering from health disparities, notably racial and ethnic minorities, those with lower educational attainment, and the lower income populations (Bennett, & Wolin, 2006; Chang, & Christakis, 2003; Paeratakul, White, Williamson, Ryan, & Bray, 2002). These misperceptions of health status have also been found in less apparent conditions such as cardiovascular disease, the leading cause of death in the United States (Mochari-Greenberger, Mills, Simpson, & Mosca, 2010; Mosca, Mochari, Christian, Berra, Taubert, Mills... & Simpson, 2006). A unifying theory

of relative health will allow health researchers to better understand the implications of these inaccurate perceptions.

I've presented findings from economics literature on the value of relative status in addition to literature that finds that people compare themselves to reference groups made up of those around them. I've also presented analyses that show that this phenomenon may be occurring in how low income individuals determine their self-perceived health status. Now I'll explore the methodological implications of these findings for health economics theory and policy design.

Health disparities are known to exist in highly predictable populations. When data is examined and these predicted disparities are not found, some measure of skepticism should be employed and a thorough review of sampling techniques, statistical methods, and results reporting should be undertaken. Upon satisfaction that the standards of the field have been met in these areas, the researcher should look to literature for a possible explanation of her findings. Given the complexity of the medical literature surrounding the morbidities and co-morbidities known to affect those in the low socioeconomic populations, it is not unreasonable to assume that they offer subjective, rather than objective, health ratings when asked. Including a question on surveys asking respondents how they arrived at their health rating and then using these results to create a mediating variable would address this limitation in analyses that rely on self-rated health status. An explicit explanation as to how a respondent has arrived at their subjective health rating would provide insight as to how individuals use upward, downward, or both upward and downward comparisons and to whom they consider as their reference group when making

these comparisons. This is the first step in developing a true measure of relative health to be included in future research.

More recent work investigating the “Easterlin paradox” has used panel data to track an individual’s income gains and their happiness over time. Future research on the relative health theory should attempt to collect longitudinal data to allow researchers to control for individual fixed effects for things like individual personality traits like optimism and previous health status while also showing the effects of individual and neighborhood level income changes on perception of health status over time.

To date very few studies have explicitly asked respondents to whom they compare themselves when offering subjective ratings on things like income and happiness. Social standards theorists tend to rely on cohort analysis or geographically based comparisons to derive information regarding social comparisons however this may be misleading. Festinger’s (1954) social comparison theory argues that as the differences between two people increase the tendency to compare themselves with each other decreases, regardless of their proximity. This may be occurring in the case of hypothesis 2: Medicaid recipients living in a neighborhood with a higher percentage of disabled residents will have a higher perception of their health as a result of exceeding the social comparison standard of health set by other neighborhood residents.

It may be the case that those respondents who are not disabled are unaffected by the lower social comparison standard of disabled individuals because they see the abilities of the disabled as too divergent from their own and do not include them in their relative comparisons when assigning their own health status. It is possible that this is occurring in terms of income as well. Does someone with a high school education or less,

earning minimum wage, and struggling to support themselves really see themselves as comparable to someone earning perhaps \$50,000 or more annually? Lyubomirsky & Ross' (1997) research also indicates that individuals may be able to choose to whom they make their comparisons. Their research indicates that happier people use downward comparisons, elevating their own status while unhappy people use upward and downward comparisons to evaluate themselves. Haggerty's (1999) suggestion of using both the range and skew of the distribution of income, rather than the mean neighborhood income, would allow for a sufficient control for both upward and downward comparisons of neighborhood income to one's own in order to better determine proximate groups for comparison. Additionally, a better understanding of the social networks that a respondent is part of will better inform our understandings of how one determines their proximate others and the influence of the health status of individuals in the network and the network as a whole influence perceptions of one's own health status (Pescolido & Levy, 2002).

Since the onset of the "Great Recession" a number of state legislatures have turned to Medicaid, the program that has increasingly become the largest component of the state's budget, as a place to rein in costs. These cost cutting exercises have resulted in utilization review, increased cost sharing, and stricter re-certification requirements (Lav & Hudgins, 2008; Williams, Leachman & Johnson, 2011). In North Carolina beneficiaries of certain programs are automatically eligible for Medicaid for the duration of their program eligibility. These programs include: Supplemental Security Income (SSI), Work First Family Assistance, State/County Special Assistance for the Aged or Disabled, and Special Assistance to the Blind. All other Medicaid recipients must complete the initial application process in addition to the re-certification process every 6

to 12 months in order to maintain their Medicaid eligibility. As the application and re-certification process for Medicaid has become more onerous over time it may be the case where adverse selection¹⁹ is occurring in these programs. For those Medicaid beneficiaries that qualify automatically on the basis of a disability or family size relative to income there are very little transaction costs associated with Medicaid. There may be substantial transaction and opportunity costs associated with someone who does not have automatic Medicaid eligibility in the form of time and money spent gathering the necessary documentation to apply, fees associated with computer and internet use, time associated with an in-person or phone interview to determine eligibility. These barriers may dissuade healthier people from pursuing Medicaid eligibility as too costly leaving only those that feel they may need health care due to illness or a medical condition to pursue eligibility. In this case adverse selection would have a differential impact based on race due to higher birth rates among Blacks, the fact that the birth rate among unmarried Black women is nearly triple the rate of unmarried White women in North Carolina and the impact of health disparities on minority populations (North Carolina State Center for Health Statistics, 2012).

While the comparison of objective health status between Blacks and Whites does provide an adequate preliminary test as to whether or not discriminatory practices or differences in family size are resulting in more healthy Blacks has resulted in more healthy Blacks being enrolled in Medicaid, there is insufficient data to understand the potential effects of outreach efforts and resources by the State of North Carolina and nonprofit groups that may be targeted to majority Black and low-income neighborhoods.

¹⁹ Adverse selection refers to the increased likelihood of those with a known higher risk of utilizing an insurance product have greater demand for that insurance product than those with a lower risk.

Addressing this limitation would require an analysis of the state's budgetary expenditures for Medicaid outreach activities, qualitative interviews with social workers in clinical settings to understand if and how indigent populations are connected with Medicaid resources if they are unable to afford their healthcare, and both qualitative and quantitative analysis of nonprofit groups' outreach efforts. Information collected from these qualitative and quantitative analyses would allow future research to control for differences in state level and nonprofit organization outreach activity.

That any of these factors is wholly responsible for the findings of better perceived health among Black respondents relative to Whites is unlikely, however, given the utilization of the health score control variable and the comparison of the objective health status with the perceived health status as illustrated by Figure 3.6. In order to test the robustness of the objective health status control variable, as measured in this analysis, future research should compare the objective health status variable derived from the factor analysis with five year morbidity and mortality data, the same methodology that has been used to validate the self-rated health status variable.

CHAPTER 4: POLICY IMPLICATIONS

Much of state and federal health disparity policy ignores the institutional factors that may actually be causing the observed health disparities. New perspectives about the causal mechanisms should inform public policies intended to reduce health disparities. In order to better understand the causes of health disparities, a better understanding of the institutions that have a disproportionate effect on populations suffering from health disparities is essential. The Institutional Analysis and Development Framework allows health disparities researchers to look past superficial characteristics of the low-socioeconomic status populations to the institutional drivers of social capital, the factors that largely determines how people interact with their environment. In the analyses of the dissertation, one socioeconomic indicator was found to be significant consistently: education. Future research should strive to better understand the impacts of increased educational attainment on health status, both independent of and concurrent with, its effects on income in order to shape policies intended to eliminate persistent health disparities.

4.1...and justice for all?

Persistent health disparities violate one of the most sacred tenets of the American way of life: equality (Lindhert & Williamson, 2013; O'Scannlain, 2010). The foundational documents of the United States are explicit in the Founding Fathers

intention to establish a republic founded on the basis of equality²⁰ (Ellis, 2007; Jefferson, 1776; Lucas, 1989; McPherson, 1991). By the time of the Constitutional Convention in 1787, political expediency necessitated compromising equality in order to accommodate the “unfortunate situation of the Southern States” whose economy was dependent on a hierarchical racial structure (Hamilton, 1850, p.434). The legacy of the three-fifths compromise remains evident in many American institutions today. After the Civil Rights legislation of the 1960’s (P. Law 88-352; P. Law 90-284) outlawed overt racial discrimination, evidence suggests that public and private actors utilized income discrimination in its place to perpetuate patterns of segregation (Neir III, 1998; Schill & Wachter, 1995). Since these policies are no longer limited to racial minorities, the scope of their impact has widened, resulting in substandard living environments for low-socioeconomic status populations of all races.

Moving away from health disparity policy research and outcomes reported in terms of race and beginning to research the institutional environments that may be causing persistent health disparities and subsequently addressing these institutions and their effects on low-socioeconomic status populations will allow health disparities researchers to identify the specific mechanisms by which disparities are created and maintained. The common feature of the institutions that effect low socioeconomic status populations of all races is unequal access to the social capital resources that contribute to good health. Because the policy solutions to address decreased social capital will not be limited in their scope to only racial minorities, they will have the ability to impact all people affected by causes of health disparities.

²⁰ The argument has been made that the Founding Fathers could never have meant for equal rights to extend to Black people in the new republic; however, private writings and remarks dispute these claims (Cohen, 1969).

This chapter began by outlining the disproportionate influence of some historical institutions on racial minorities in the United States. Understanding the departure from the foundational principle of equality and the legacy of the departure from this ethic contributes to an understanding of the socioeconomic health disparities that are evident today. The legacy of the three-fifths compromise resulted in additional representation of Southern Whites relative to the overall population, both Black and White, which was eligible to vote. The legislative decision-makers, that disproportionately represented White property owners, shaped the institutions that largely determine the health of our nation's poor today. After overt racial discrimination was prohibited, both by law and common social standards, subtle discrimination stretched the boundaries of health disparities, allowing lower health status to saturate the lower socioeconomic classes subject to these institutions, regardless of race. Given this, research into within socioeconomic status disparities is necessary to elucidate the true causal mechanisms of the observed health disparities. Subsequently, the results of the analyses will be summarized and synthesized to advocate for the use of the Institutional Analysis and Development framework in health disparity policy. Lastly, specific policy prescriptions that follow from the analyses in the dissertation will be presented.

4.2 Institutional mechanisms contributing to health disparities

Socioeconomic status, whether measured by individual or median family income, occupational status, or educational attainment, largely determines the institutions and environment that one is subject to. There are large racial and gender differences in socioeconomic status (Jackson & Williams, 2006). For example, Blacks, Hispanics, American Indians, some Asian ethnic groups and females generally have lower

socioeconomic status attainment than their White and male counterparts. These effects can be particularly acute on those populations that have double minority status, Black women for instance, leaving them with less access to advantageous social capital, desirable economic resources, and health information and resources (Jackson & Williams, 2006; Wilson, 1997). One way that these socioeconomic disadvantages may be overcome is to determine the source of these social capital, economic, and health information resources and create policy interventions that are designed to increase access to these resources.

4.2.2: The significance of education in health disparities

While understanding the factors that influence a single action arena are important, it is imperative that these institutions be understood in the context of the policy system in which they reside. For example, the policy systems applied in these analyses include health, insurance, urban development, and transportation. Each of these policy systems is governed by its own set of institutions that determines that behavior of the actors in that policy system. These must be integrated into the analysis to fully comprehend the constraints of the action arena.

The interactions of the complex policy arenas employed in the analyses of the dissertation allow for the illumination of a single factor that is significant in perceptions of health in low-socioeconomic status populations prone to health disparities: education. A protracted effort to eliminate health disparities has addressed differential access to health care by increasing prevalence and quality of health insurance for low-socioeconomic and racial minority populations (Conti, Heckman & Urzua, 2010). Despite these policy efforts, health disparities continue to exist. Using the IAD to better

understand the institutional factors that impact the low-socioeconomic status populations led to analyses that examined the attributes of the people themselves, using demographic variables, as well as their environment, using neighborhood characteristics. One variable that consistently remained significant across the analyses, models, and subpopulations in the papers of the dissertation was education. In chapter 2, education was a significant predictor of whether or not a respondent sought mental health care. In chapter 3 education remained significant in all of the analyses that pertained to relative health, however, the impact of education on self-rated health status was stronger for Whites than for Blacks. Positive correlations between health and education have been documented in the academic literature, though disparities by education level are not commonly reported by national health disparity policy-making authorities (Conti, Hackman & Urzua, 2010). There are three explanations for these correlations: that additional education increases health status, that better health status increases educational attainment, or that some third factor is responsible for increases in both educational attainment and health status. A better understanding of the direction of causality is necessary to design policy to take advantage of the observed nonmarket effects of education, or the as yet to be determined third factor, on health status; particularly in light of the differential effects on the subpopulations in the analysis.

4.3: Specific policy prescriptions

In addition to application of the IAD framework to better understand the institutions affecting populations suffering from health disparities so that the causal mechanisms of health disparities may begin to be addressed in state and federal policy, specific policy prescriptions follow from the analyses of this dissertation.

4.3.1: Expand the explicit use of institutional determinants of health in health disparities research and policy

The academic study of health disparities is relatively new; the first paper using the keyword health disparity was indexed in 1991 (Adler, 2013). However, interest in and research into the phenomena has grown exponentially since that time. Academic research into health disparities continues to introduce new, and increasingly complex, frameworks and methods in order to glean a better understanding of health disparities. National health disparity policy is generally not reflective of these newer, more nuanced, and complex understanding of the social determinants of health. Since much of the policy directions and research funding associated with health disparities comes from state and federal government coffers it is necessary to reconcile the academic and policy understanding of health disparities. Research into the causes of health disparities should begin to incorporate explicit institutional and social capital factors in their data collection efforts so that health disparity policy can adequately address these factors in order to eliminate observed health disparities. Specific examples from the dissertation elucidate where explicit measures of institutions and social capital would have improved the analyses: an accurate reflection of social capital as exemplified by access to both private and public transportation in the community and a better understanding of how survey respondents arrived at their self-rated health status and to whom they compare themselves to if comparisons to others do account for some component of the self-rated health measure.

4.4: Future directions in health disparities research

Health disparities research that has been primarily concerned with identifying where, and in which populations, health disparities exist has led to policy initiatives dominated by disease prevention and health promotion agendas (Carter-Pokras & Baquet, 2002). These policies are overbroad to successfully reduce and eventually eliminate health disparities. As a result of not fully understanding the causal mechanisms associated with health disparities, policies have been advanced that were ineffective in reducing health disparities.

Digging deeper into the causes of health disparities will allow targeted policy development to ensue, ensuring a better use of public resources. For instance, reforming payment policies in public programs to facilitate social workers to arrange transportation for those in need of mental health services is an easier way to reduce health disparities associated with access problems in mental health than creating a health promotion campaign that is geared toward an entire race of people. Attacking the relative health problem is also less resource intensive than past policy approaches. Targeting additional educational resources to low-income neighborhoods is a more efficient strategy to eliminate health disparities, due to the positive effect of additional years of education on income, but also due to the effect of education independent of earnings. In this way, there is a possibility that the disparities that result from relative health could be eliminated.

REFERENCES

CHAPTER 1

2012 National Healthcare Disparities Report. (2013). Rep. no. 13-003. Rockville: Agency for Healthcare Research and Quality.

About the CAHPS Database. Consumer Assessment of Healthcare Providers and Systems. Agency for Healthcare Research and Quality, 23 Jan. 2012.

Adler, N. E., & Newman, K. (2002). Socioeconomic disparities in health: pathways and policies. *Health affairs*, 21(2), 60-76.

Andrulis, D. P. (1998). Access to care is the centerpiece in the elimination of socioeconomic disparities in health. *Annals of Internal Medicine*, 129(5), 412-416.

Aneshensel, C. S. (2009). Toward explaining mental health disparities. *Journal of Health and Social Behavior*, 50(4), 377-394.

Bach, P. B., Schrag, D., Brawley, O. W., Galaznik, A., Yakren, S., & Begg, C. B. (2002). Survival of blacks and whites after a cancer diagnosis. *Journal of the American Medical Association*, 287(16), 2106-2113.

Bleich, S. N., Jarlenski, M. P., Bell, C. N., & LaVeist, T. A. (2012). Health inequalities: trends, progress, and policy. *Annual Review of Public Health*, 33, 7-40.

Brandon, W.P., Schoeps, N., Sun, C., & Smith, G.H. (2008). *Statewide assessment of patient experience with Medicaid managed care in North Carolina: Report of a Consumer Assessment of Health Plans Survey of Primary Care Case Managed Adult and Child Enrollees, 2006-2007*. (Policy Report No. 12). Charlotte.

Brandon, W.P., Smith, G.H., **Hampton, C.**, Carnes, K.J. & Tripp, H.L. (2014). *Statewide assessment of patient experience with Medicaid managed care in North Carolina: Report of a Consumer Assessment of Health Plans Survey of Primary Care Case Managed Adult Enrollees, 2012*. (Policy Report No. 14). Charlotte.

Braveman, P. (2006). Health disparities and health equity: concepts and measurement. *Annual Review of Public Health*, 27, 167-194.

Braveman, P. A. (2011). Monitoring equity in health and healthcare: a conceptual framework. *Journal of Health, Population and Nutrition (JHPN)*, 21(3), 181-192.

Breslau, J., Aguilar-Gaxiola, S., Kendler, K. S., Su, M., Williams, D., & Kessler, R. C. (2006). Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological medicine*, 36(1), 57-68.

- Carter-Pokras, O., & Baquet, C. (2002). What is a "health disparity"?. *Public health reports*, 117(5), 426-434.
- Centers for Disease Control and Prevention. (2013). CDC health disparities and inequalities report- United States, 2013. *MMWR* 2013;62(Suppl 3), 1-187.
- Charles, C. Z. (2003). The dynamics of racial residential segregation. *Annual review of sociology*, 167-207.
- Chin, M. H., Walters, A. E., Cook, S. C., & Huang, E. S. (2007). Interventions to reduce racial and ethnic disparities in health care. *Medical Care Research and Review*, 64(5 suppl), 7S-28S
- Clark, A. E., Frijters, P., & Shields, M. A. (2008). Relative income, happiness, and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature*, 95-144.
- Dressler, W. W., Oths, K. S., & Gravlee, C. C. (2005). Race and ethnicity in public health research: models to explain health disparities. *Annu. Rev. Anthropol.*, 34, 231-252.
- Gibson, C. C. (2005). In pursuit of better policy outcomes. *Journal of Economic Behavior & Organization*, 57(2), 227-230.
- Festinger, L.(1954). A theory of social comparison processes. *Human Relations*, 7(2), 114-140.
- Fiscella, K., & Williams, D. R. (2004). Health disparities based on socioeconomic inequities: implications for urban health care. *Academic Medicine*, 79(12), 1139-1147.
- Hartley, D. (2004). Rural health disparities, population health, and rural culture. *American Journal of Public Health*, 94(10), 1675.
- Hayward, M. D., Miles, T. P., Crimmins, E. M., & Yang, Y. (2000). The significance of socioeconomic status in explaining the racial gap in chronic health conditions. *American Sociological Review*, 910-930.
- Health Resources and Services Administration. (n.d.). Office of health equity. Retrieved from: <http://www.hrsa.gov/about/organization/bureaus/ohe/>
- Hebert, P.L., Sisk, J.E., & Howell, E.A. (2008). When does a difference become a disparity? Conceptualizing racial and ethnic disparities in health. *Health Affairs*, 27(2), 374-382.
- Hess, C., & Ostrom, E. (2005). A Framework for Analyzing the Knowledge Commons: a chapter from Understanding Knowledge as a Commons: from Theory to Practice. Paper 21. *Library and Librarians' Publication*.

- Hines-Martin, V., Malone, M., Kim, S., & Brown-Piper, A. (2003). Barriers to mental health care access in an African American population. *Issues in Mental Health Nursing, 24*(3), 237-256.
- Hurley, R. E., Pham, H. H., & Claxton, G. (2005). A widening rift in access and quality: growing evidence of economic disparities. *Health Affairs, 24*, W5.
- Idler, E. L., & Benyamini, Y. (1997). Self-rated health and mortality: a review of twenty-seven community studies. *Journal of health and social behavior, 21*-37.
- Institute of Medicine. (2009). Select populations and health disparities. Retrieved from: <http://www.iom.edu/Global/Topics/Select-Populations-Health-Disparities.aspx>
- Jackson, J. S., Knight, K. M., & Rafferty, J. A. (2010). Race and unhealthy behaviors: chronic stress, the HPA axis, and physical and mental health disparities over the life course. *American journal of public health, 100*(5), 933.
- Kawachi, I., Daniels, N., & Robinson, D. E. (2005). Health disparities by race and class: why both matter. *Health Affairs, 24*(2), 343-352.
- Knight, J., Song, L., & Gunatilaka, R. (2009). Subjective well-being and its determinants in rural China. *China Economic Review, 20*(4), 635-649.
- Krieger, N., Chen, J. T., Waterman, P. D., Rehkopf, D. H., & Subramanian, S. V. (2003). Race/ethnicity, gender, and monitoring socioeconomic gradients in health: a comparison of area-based socioeconomic measures-the public health disparities geocoding project. *American journal of public health, 93*(10), 1655-1671.
- LaVeist, T. (2005). *Minority populations and health: An introduction to health disparities in the United States*. Jossey-Bass: San Francisco.
- Lightner, S. (2004). Racial and ethnic disparities in health care. *Annals of Internal Medicine, 141*(3), 226-332.
- Lillie-Blanton, M. & Hoffman, C. (2005). The role of health insurance coverage in reducing racial/ethnic disparities in health care. *Health Affairs, 24*(2), 398-408.
- Lochner, K., Kawachi, I., & Kennedy, B. P. (1999). Social capital: a guide to its measurement. *Health & place, 5*(4), 259-270.
- Luttmer, E. F. (2005). Neighbors as negatives: Relative earnings and well-being. *The Quarterly Journal of Economics, 120*(3), 963-1002.
- Mezuk, B., Abdou, C. M., Hudson, D., Kershaw, K. N., Rafferty, J. A., Lee, H., & Jackson, J. S. (2013). "White Box" Epidemiology and the Social Neuroscience of Health

Behaviors The Environmental Affordances Model. *Society and mental health*, 3(2), 79-95.

Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *Journal of clinical epidemiology*, 50(5), 517-528.

Mossey, J. M., & Shapiro, E. (1982). Self-rated health: a predictor of mortality among the elderly. *American journal of public health*, 72(8), 800-808.

McPherson, J. M. (1999). Was Blood Thicker than Water? Ethnic and Civic Nationalism in the American Civil War. *Proceedings of the American Philosophical Society*, 102-108.

Miranda, J., McGuire, T. G., Williams, D. R., & Wang, P. (2008). Commentary: Mental health in the context of health disparities. *American Journal of Psychiatry*, 165(9), 1102-1108.

National Institutes of Health. (2011). Health disparities. *Health research information central*. U.S. National Library of Medicine. Retrieved from: <http://www.nlm.nih.gov/hsrinfo/disparities.html>

National Institute on Minority Health and Health Disparities. (n.d.). About NIMHD. Retrieved from: www.nimhd.nih.gov/about.htm

P. Law 106-525. (2000). Minority Health and Health Disparities Research and Education Act of 2000.

Politzer, R. M., Yoon, J., Shi, L., Hughes, R. G., Regan, J., & Gaston, M. H. (2001). Inequality in America: the contribution of health centers in reducing and eliminating disparities in access to care. *Medical Care Research and Review*, 58(2), 234-248.

Polski, M. M., & Ostrom, E. (1999, February). An institutional framework for policy analysis and design. In *Workshop in Political Theory and Policy Analysis Working Paper W98-27*. Indiana University, Bloomington, IN.

Pullen-Smith, B., Jones-Vessey, K. & Easley, C. (2010). Racial and ethnic health disparities in North Carolina, Report card 2010. *Office of Minority Health and Health Disparities and State Center for Health Statistics*. Raleigh.

Shavers, V. L. (2007). Measurement of socioeconomic status in health disparities research. *Journal of the national medical association*, 99(9), 1013.

Shields, A. E., Fortun, M., Hammonds, E. M., King, P. A., Lerman, C., Rapp, R., & Sullivan, P. F. (2005). The use of race variables in genetic studies of complex traits and the goal of reducing health disparities: a transdisciplinary perspective. *American Psychologist*, 60(1), 77.

Smedley, A., & Smedley, B. D. (2005). Race as biology is fiction, racism as a social problem is real: Anthropological and historical perspectives on the social construction of race. *American Psychologist*, 60(1), 16.

Smedley, B. D., Stith, A. Y., & Nelson, A. R. (Eds.). (2009). *Unequal treatment: confronting racial and ethnic disparities in health care*. National Academies Press.

Turner, R. J. (2010). Understanding health disparities: The promise of the stress process model. In *Advances in the Conceptualization of the Stress Process*(pp. 3-21). Springer New York.

U.S. Department of Health and Human Services, Office of Minority Health. (2013). About OMH. Retrieved from:
<http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=1&lvlID=7>

Whitehead, M. (1991). The concepts and principles of equity and health. *Health Promotion International*, 6(3), 217-228.

Williams, D. R., & Collins, C. (2001). Racial residential segregation: a fundamental cause of racial disparities in health. *Public health reports*, 116(5), 404.

Williams, D. R. & Jackson, P. B. (2005). Social sources of racial disparities in health. *Health Affairs*, 24(2), 325-334.

Williams, D.R., Lavizzo-Mourey, R. & Warren, R.C. (1994). The concept of race and health status in America. *Public Health Reports*, 109(1), 26-41.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health socio-economic status, stress and discrimination. *Journal of health psychology*, 2(3), 335-351.

CHAPTER 2

Addis, M. E., & Mahalik, J. R. (2003). Men, masculinity, and the contexts of help seeking. *American psychologist*, 58(1), 5.

Adler, N.E., Boyce, T., Chesney, M.A., Cohen, S., Folkman, S., Kahn, R.L., & Syme, S. L. (1994). Socioeconomic status and health: The challenge of the gradient. *American Psychologist*, 49(1), 15-24.

Akutsu, P., Snowden, L., & Organista, K. (1996). Referral patterns in ethnic-specific and mainstream programs for ethnic minorities and whites. *Journal of Counseling Psychology*, 43(1), 56-64.

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of health and social behavior*, 1-10.

Aneshensel, C. S. (2009). Toward explaining mental health disparities. *Journal of Health and Social Behavior*, 50(4), 377-394.

Arcury, T. A., Gesler, W. M., Preisser, J. S., Sherman, J., Spencer, J., & Perin, J. (2005). The effects of geography and spatial behavior on health care utilization among the residents of a rural region. *Health Services Research*, 40(1), 135-155.

Baker, W.E. (1990). Market networks and corporate behavior. *American Journal of Sociology*, 96, 589-625.

Betancourt, J. R., Green, A. R., Carrillo, J. E., & Park, E. R. (2005). Cultural competence and health care disparities: Key perspectives and trends. *Health Affairs*, 24(2), 499-505.

Billi, J., Pai, C., & Spahlinger, D. (2007). The effect of distance to primary care physician on health care utilization and disease burden. *Health Care Management Review*. 32(1), 22-29.

Borowsky, S., Rubenstein, L., Meredith, L., Camp, P., Jackson-Triche, M., & Wells, K. (2000). Who is at risk of nondetection of mental health problems in primary care. *Journal of Internal Medicine*, 15(6), 381-388.

Bourdieu, P. (1985). The social space and the genesis of groups. *Theory and society*, 14(6), 723-744.

Brandon, W.P., Smith, G.H., **Hampton, C.**, Carnes, K.J. & Tripp, H.L. (2014). *Statewide assessment of patient experience with Medicaid managed care in North Carolina: Report of a Consumer Assessment of Health Plans Survey of Primary Care Case Managed Adult Enrollees, 2012*. (Policy Report No. 14). Charlotte.

- Breslau, J., Aguilar, S., Kendler, K., Su, M., Williams, D. & Kessler, R. C. (2006). Specific race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological Medicine*, 36(1), 57-68.
- Chow, J. C., Jaffee, K. & Snowden, L. (2003). Racial/ethnic disparities in the use of mental health services in poverty areas. *American Journal of Public Health*, 93(5), 792-797.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological bulletin*, 98(2), 310.
- Cowen, P.J. & Wood, A.J. (1991). Biological markers of depression. *Psychological Medicine*, 21(4), 831-836.
- Decker, S. L. (2013). Two-Thirds Of Primary Care Physicians Accepted New Medicaid Patients In 2011–12: A Baseline To Measure Future Acceptance Rates. *Health Affairs*, 32(7), 1183-1187.
- Department of Health and Human Services. (2001). Mental health: Culture, race, and ethnicity-a supplement to mental health: A report of the Surgeon General. Rockville, MD: Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.
- Dohrenwend, B. S., & Dohrenwend, B. P. (1970). Class and race as status-related sources of stress. In S. Levine & N.A. Scotch (Eds.), *Social stress*, 111-140. Chicago: Aldine.
- Erwin, P., Fitzhugh, E., Brown, K., & Looney, S. (2010) Health disparities in rural areas: The interaction of race, socioeconomic status, and geography. *Journal of Health Care for the Poor and Underserved*, 21(3), 931-945.
- Flores, G., Abreu, M., Olivar, M. & Kastner, B. (1998) Access barriers to health care for Latino children. *Archives of Pediatric and Adolescent Medicine*, 152(1998) 1119-1125.
- Gaskin, D. J., Dinwiddie, G. Y., Chan, K. S., & McCleary, R. R. (2012). Residential segregation and the availability of primary care physicians. *Health services research*, 47(6), 2353-2376.
- Hart, L. G., Salsberg, E., Phillips, D. M., & Lishner, D. M. (2002). Rural health care providers in the United States. *The Journal of Rural Health*, 18(5), 211-231.
- Hines-Martin, V., Malone, M., Kim, S., & Brown-Piper, A. (2003). Barriers to mental health care access in an African American population. *Issues in Mental Health Nursing*, 24(3), 237-256.
- Hurley, R. E., Pham, H. H., & Claxton, G. (2005). A widening rift in access and quality: growing evidence of economic disparities. *Health Affairs*, 24, W5.

Jackson, J. S., Knight, K. M., & Rafferty, J. A. (2010). Race and unhealthy behaviors: Chronic stress, the HPA axis, and physical and mental health disparities over the life course. *American Journal of Public Health, 100*(5), 933-939.

Kawachi, I., Daniels, N., & Robinson, D. E. (2005). Health disparities by race and class: Why both matter. *Health Affairs, 24*(2), 343-352.

Kawachi, I., Kennedy, B.P., Lochner, K., & Prothrow-Smith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health, 87*(1997), 1491-1498.

Kendler, K.S., Thornton, L.M., & Gardner, C. O. (2000). Stressful life events and previous episodes in the etiology of major depression in women: An evaluation of the "kindling" hypothesis. *American Journal of Psychiatry, 157*(8), 1243-1251.

Knight, B. G., Silverstein, M., McCallum, T. J., & Fox, L. S. (2000). A sociocultural stress and coping model for mental health outcomes among African American caregivers in Southern California. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 55*(3), P142-P150.

Kohn, L.P. & Hudson, K.M. (2002). Gender, ethnicity and depression: Intersectionality and context in mental health research with African American women. *African American Research Perspectives, 8*, 174-184.

Lewinsohn, P. M., Allen, N. B., Seeley, J. R., & Gotlib, I. H. (1999). First onset versus recurrence of depression: differential processes of psychosocial risk. *Journal of Abnormal Psychology, 108*(3), 483.

Lichter, D. T., Parisi, D., & Taquino, M. C. (2012). The geography of exclusion: Race, segregation, and concentrated poverty. *Social Problems, 59*(3), 364-388.

Lightner, S. (2004). Racial and ethnic disparities in health care. *Annals of Internal Medicine, 141*(3), 226-332.

Lillie-Blanton, M. & Hoffman, C. (2005). The role of health insurance coverage in reducing racial/ethnic disparities in health care. *Health Affairs, 24*(2), 398-408.

Lincoln, K. D., Chatters, L. M., & Taylor, R. J. (2003). Psychological distress among Black and White Americans: Differential effects of social support, negative interaction and personal control. *Journal of Health and Social Behavior, 44*(3), 390.

Link, B. G., Phelan, J., Bresnahan, M., Stueve, A., & Pescosolido, B. A. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*(9), 1328-1333.

- Massey, D.S. & Denton, N.A. (1993). *American apartheid: Segregation and the making of an underclass*. Cambridge, MA: Harvard University.
- Molotch, H. (1976). The City as a Growth Machine: Toward a Political Economy of Place. *Cities and Society*, 82(2), 15-27.
- Monroe, S.M. & Harkness, K.L. (2005). Life stress, the “kindling” hypothesis, and the recurrence of depression: Considerations from a life stress perspective. *Psychological Review*, 112(2), 417-445.
- Murakami, E., & Young, J. (1997). *Daily travel by persons with low income*. US Federal Highway Administration.
- Neighbors, H. W., Jackson, J. S., Campbell, L., & Williams, D. (1989). The influence of racial factors on psychiatric diagnosis: A review and suggestions for research. *Community Mental Health Journal*, 25(4), 301-311.
- Neighbors, H. W., Trierweiler, S. J., Ford, B. C., & Muroff, J. R. (2003). Racial differences in DSM diagnosis using a semi-structured instrument: The importance of clinical judgment in the diagnosis of African Americans. *Journal of Health and Social Behavior*, 237-256.
- Office of Behavioral and Social Sciences Research. (2001). *Toward higher levels of analysis: Progress and promise in research on social and cultural dimensions of health* (NIH Publication No. 215020). Bethesda, MD: National Institutes of Health.
- Ong, P. M. (2002). Car ownership and welfare-to-work. *Journal of Policy Analysis and Management*, 21(2), 239-252.
- P. Law 105-33. (1997). *Balanced Budget Act of 1997*, §4705.
- Portes, A. (1998). Social capital: It’s origins and applications in modern sociology. *Annual Review of Sociology*, 24, 1-24.
- Post, R.M. (1992). Transduction of psychosocial stress into the neurobiology of recurrent affective disorder. *American Journal of Psychiatry*, 149(8), 999-1010.
- Post, R.M. & Weiss, S.R.B. (1992). Neurobiological models of recurrence in mood disorders. In D. S. Chaney, E.J. Nestler, & B.S. Bunney (Eds.), *Neurobiology of mental illness* (pp. 365-384). New York: Oxford University Press.
- Regier, D.A., Kaelber, C.T., Rae, D.S., Farmer, M.E., Knauper, B, Kessler, R.C., & Norquist, G.S. (1998). Limitations of diagnostic criteria and assessment instruments for mental disorders: Implications for research and policy. *Archives of General Psychiatry*, 55(2), 109-115.

- Rosenfield, S., & Mouzon, D. (2013). Gender and mental health. In *Handbook of the sociology of mental health* (pp. 277-296). Springer Netherlands.
- Rothwell, J. T., & Massey, D. S. (2010). Density Zoning and Class Segregation in US Metropolitan Areas*. *Social science quarterly*, *91*(5), 1123-1143.
- Shannon, G. W., Bashshur, R. L., & Metzner, C. A. (1969). The concept of distance as a factor in accessibility and utilization of health care. *Medical Care Review*, *26*(2), 143-161.
- Snowden, L. R. (2003). Bias in mental health assessment and intervention: Theory and evidence. *American Journal of Public Health*, *93*(2), 239-243.
- Social Security Act (as amended), 42 U.S.C. §1915(b).
- StataCorp. 2009. *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP.
- Subramanian, S. V., Acevedo-Garcia, D. D., & Osypuk, T. L. (2005). Racial residential segregation and geographic heterogeneity in Black/White disparity in poor self-rated health in the US: A multilevel statistical analysis. *Social Science & Medicine*, *60*(8), 1667-1679.
- Watkins, D. C., Walker, R. L., & Griffith, D. M. (2010). A meta-study of Black male mental health and well-being. *Journal of Black Psychology*, *36*(3), 303-330.
- Wells, K., Klap, R., Koike, A., & Sherbourne, C. (2001). Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. *American Journal of Psychiatry*, *158*(12), 2027-2032.
- Williams, D.R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports*, *116*(5), 404-416.
- Williams, D. R., & Collins, C. (2004). Reparations A Viable Strategy to Address the Enigma of African American Health. *American Behavioral Scientist*, *47*(7), 977-1000.
- Williams, D.R., Gonzalez, H.M., Neighbors, H., Nesse, R., Abelson, J.M., Sweetman, J. & Jackson, J.S. (2007). Prevalence and distribution of major depressive disorder in African Americans, Caribbean Blacks, and Non-Hispanic Whites. *Archives of General Psychiatry*, *64*(3),305-315
- Williams, D. R. & Jackson, P. B. (2005). Social sources of racial disparities in health. *Health Affairs*, *24*(2), 325-334.
- Williams, D.R., Lavizzo-Mourey, R. & Warren, R.C. (1994). The concept of race and health status in America. *Public Health Reports*, *109*(1), 26-41.

CHAPTER 3

Adams, P.F., Kirzinger, W.K., & Martinez, M.E. (2012). Summary health statistics for the US population: National health interview survey, 2011. National Center for Health Statistics. *Vital Health Statistics*, 10(255).

Alpizar, F., Carlsson, F., & Johansson-Stenman, O. (2005). How much do we care about absolute versus relative income and consumption?. *Journal of Economic Behavior & Organization*, 56(3), 405-421.

American Community Survey. 2012 1-year estimates. (2012).

American Community Survey. 2012 5-year estimates. (2012).

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: does it matter? *Journal of health and social behavior*, 1-10.

Bennett, G. G., & Wolin, K. Y. (2006). Satisfied or unaware? Racial differences in perceived weight status. *International Journal of Behavioral Nutrition and Physical Activity*, 3(1), 40.

Borooah, V. K. (2002). *Logit and probit: Ordered and multinomial models* (No. 138). Sage.

Brandon, W.P., Schoeps, N., Sun, C., & Smith, G.H. (2008). *Statewide assessment of patient experience with Medicaid managed care in North Carolina: Report of a Consumer Assessment of Health Plans Survey of Primary Care Case Managed Adult and Child Enrollees, 2006-2007*. (Policy Report No. 12). Charlotte.

Brandon, W.P., Smith, G.H., **Hampton, C.**, Carnes, K.J. & Tripp, H.L. (2014). *Statewide assessment of patient experience with Medicaid managed care in North Carolina: Report of a Consumer Assessment of Health Plans Survey of Primary Care Case Managed Adult Enrollees, 2014*. (Policy Report No. 14). Charlotte.

Brant, R. (1990). Assessing proportionality in the proportional odds model for ordinal logistic regression. *Biometrics*, 1171-1178.

Carter-Pokras, O. & Baquet, C. (2002). What is a “health disparity?” *Public Health Reports*, 117(5), 426-434.

Centers for Disease Control and Prevention. (2013). CDC health disparities and inequalities report – United States, 2013. *MMWR* 2013;62(Suppl 3), 1-189.

Centers for Disease Control and Prevention. National Center for Health Statistics. Health Data Interactive. www.cdc.gov/nchs/hdi.htm. February 28, 2014.

- Chang, V. W., & Christakis, N. A. (2003). Self-perception of weight appropriateness in the United States. *American Journal of Preventive Medicine*, 24(4), 332-339.
- Clark, A. E., Frijters, P., & Shields, M. A. (2008). Relative income, happiness, and utility: An explanation for the Easterlin paradox and other puzzles. *Journal of Economic Literature*, 95-144.
- Cole, H.L., Mailath, G.J., & Postlewaite, A. (1995). Incorporating concern for relative wealth into economic models. *Federal Reserve Bank of Minneapolis Quarterly Review*, 19(3), 12-21.
- Diener, E. (2012). New findings and future directions for subjective well-being research. *American Psychologist*, 67(8), 590.
- Diener, E. & Lucas, R. (2000). Explaining differences in societal levels of happiness: Relative standards, need fulfillment, culture, and evaluation theory. *Journal of Happiness Studies*, 1(1), 41-78.
- Diener, E. Sandvik, E., Seidlitz, & Diener, M. (1993). The relationship between income and subjective well-being: Relative or absolute? *Social Indicators Research*, 28(3), 195-223.
- Dorsey, R. R., Eberhardt, M. S. and Ogden, C. L. (2009), Racial/Ethnic Differences in Weight Perception. *Obesity*, 17(4), 790–795.
- Dowd, J. B., & Zajacova, A. (2007). Does the predictive power of self-rated health for subsequent mortality risk vary by socioeconomic status in the US? *International Journal of Epidemiology*, 36(6), 1214-1221.
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. *Nations and households in economic growth*, 89.
- Ettner, S.L. (1996). New evidence on the relationship between income and health. *Journal of Health Economics*, 15(1), 67-85.
- Gladwell, M. (2013). *David and Goliath: Underdogs, Misfits, and the Art of Battling Giants*. New York: Little, Brown & Company.
- Falk, A., & Knell, M. (2004). Choosing the Joneses: Endogenous goals and reference standards. *The Scandinavian Journal of Economics*, 106(3), 417-435.
- Festinger, L.(1954). A theory of social comparison processes. *Human Relations*, 7(2), 114-140.

- Franks, P., Gold, M. R., & Fiscella, K. (2003). Sociodemographics, self-rated health, and mortality in the US. *Social science & medicine*, 56(12), 2505-2514.
- Freund, P. A., & Kasten, N. (2012). How smart do you think you are? A meta-analysis on the validity of self-estimates of cognitive ability. *Psychological bulletin*, 138(2), 296.
- Haggerty, M.R. (1999). Social comparison of income in one's community: Evidence from national surveys of income and happiness, *Journal of Personality and Social Psychology*, 78(4), 764-771.
- Idler, E. L. & Benyamini, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *Journal of Health and Social Behavior*, 38(1), 21-37.
- Jemal, A., Siegel, R., Ward, E., Hao, Y., Xu, J., Murray, T., & Thun, M. J. (2008). Cancer statistics, 2008. *CA: A Cancer Journal for Clinicians*, 58(2), 71-96.
- Johansson-Stenman, O., Carlsson, F., & Daruvala, D. (2002). Measuring future grandparents' preferences for equality and relative standing. *The Economic Journal*, 112(479), 362-383.
- Kerr, N. L., MacCoun, R. J., & Kramer, G. P. (1996). "When are N heads better (or worse) than one?": Biased judgment in individuals versus groups. In Witte, E.H. & Davis, J.H. (Eds). *Understanding Group Behavior: Volume 1: Consensual Action By Small Groups*. New York: Psychology Press
- Knight, J., Song, L., & Gunatilaka, R. (2009). Subjective well-being and its determinants in rural China. *China Economic Review*, 20(4), 635-649.
- Lav, I. J., & Hudgins, E. (2008). Facing Deficits, Many States Are Imposing Cuts That Hurt Vulnerable Residents. *Center on Budget and Policy Priorities, Washington, DC, April, 15*.
- Loury, G. (1977). A dynamic theory of racial income differences. *Women, minorities, and employment discrimination*, 153, 86-153.
- Luttmer, E. F. (2005). Neighbors as negatives: Relative earnings and well-being. *The Quarterly Journal of Economics*, 120(3), 963-1002.
- Lyubomirsky, S.C. & Ross, L. (1997). Hedonic consequences of social comparison: A contrast of happy and unhappy people. *Journal of Personality and Social Psychology*, 73(6), 1141-1157.
- Marmot, M. (2004). *The status syndrome*. New York, NY: Henry Holt.

Marmot, M., Rose, G., Shipley, M. & Hamilton, P.J.S. (1978). Employment grade and coronary heart diseases in British civil servants. *Journal of Epidemiology and Community Health*, 32(4), 244-249.

Meara, E., Richards, S. & Cutler, D. (2008). The gap gets bigger: Changes in mortality and life expectancy by education, 1981-2000. *Health Affairs*, 27(2), 350-360.

Miilunpalo, S., Vuori, I., Oja, P., Pasanen, M., & Urponen, H. (1997). Self-rated health status as a health measure: the predictive value of self-reported health status on the use of physician services and on mortality in the working-age population. *Journal of clinical epidemiology*, 50(5), 517-528.

Mochari-Greenberger, H., Mills, T., Simpson, S.L., & Mosca, L. (2010). Knowledge, preventive action, and barriers to cardiovascular disease prevention by race and ethnicity in women: An American Heart Association national survey. *Journal of Women's Health*, 19(7), 1243-1249.

Mosca, L., Mochari, H., Christian, A., Berra, K., Taubert, K., Mills, T.,...Simpson, S. L. (2006). National study of women's awareness, preventive action, and barriers to cardiovascular health. *Circulation*, 113(4), 525-534.

North Carolina State Center for Health Statistics. (2012). Vital statistics, 2012: Volume 1. North Carolina Department of Health and Human Services. Raleigh.

Paeratakul, S., White, M. A., Williamson, D. A., Ryan, D. H., & Bray, G. A. (2002). Sex, Race/Ethnicity, Socioeconomic Status, and BMI in Relation to Self-Perception of Overweight. *Obesity Research*, 10(5), 345-350.

Pescosolido, B. A., & Levy, J. A. (2001). The role of social networks in health, illness, disease and healing: the accepting present, the forgotten past, and the dangerous potential for a complacent future. *Advances in medical sociology*, 8, 3-25.

Pub. L. 105-33. (1997). Balanced Budget Act of 1997.

Selvin, E. & Brett, K.M. (2003). Breast and cervical cancer screening: Sociodemographic predictors among White, Black, and Hispanic women. *American Journal of Public Health*, 93(4), 618-623.

Solnick, S. J., & Hemenway, D. (2005). Are positional concerns stronger in some domains than in others?. *American Economic Review*, 147-151.

Spence, M. (1973). Job market signaling. *The quarterly journal of Economics*, 87(3), 355-374.

StataCorp. 2009. *Stata Statistical Software: Release 11*. College Station, TX: StataCorp LP.

- Sun, C. (2010). Disentangling the complex racial disparities in health among adult beneficiaries under Medicaid managed care: A structural equation modeling approach. (Doctoral Dissertation, University of North Carolina at Charlotte).
- Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*, 52(2), 145-161.
- U.S. Census Bureau. (2008). A compass for understanding and using American Community Survey data: What general data users need to know. U.S. Government Printing Office, Washington, D.C.
- Valente, T. W. (2010). *Social networks and health: Models, methods, and applications*. Oxford University Press.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24(1), 1-34.
- Williams, D.R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports*, 116(5), 404-416.

CHAPTER 4

- Adler, N. E. (2013). Health Disparities Taking on the Challenge. *Perspectives on Psychological Science*, 8(6), 679-681.
- Cohen, W. (1969). Thomas Jefferson and the Problem of Slavery. *Journal of American History*, 56(519.10), 2307.
- Conti, G., Hackman, J., & Urzua, S. (2010). The education health gradient. *American Economic Review*, 100(2), 234-238.
- Ellis, J. J. (2007). *American creation: triumphs and tragedies at the founding of the republic*. Random House LLC.
- Hamilton, A. (1850). Speech on the compromises of the Constitution. The works of Alexander Hamilton; comprising his correspondence and his political and official writings, excl. of the federalist, civil and military. Ed. by John C. Hamilton, Volume 2. Joint Library Committee of Congress.
- Jefferson, T. (1776). *Declaration of Independence*.
- Lindert, P. H., & Williamson, J. G. (2013). American Incomes before and after the Revolution. *The Journal of Economic History*, 73(03), 725-765.
- Lucas, S. E. (1989). Justifying America: The Declaration of Independence as a rhetorical document. In Thomas W. Benson (Ed.), *American rhetoric: Context and criticism*, Carbondale, Illinois: Southern Illinois University Press, 67-130.
- Jackson, P. B., & Williams, D. R. (2006). The Intersection of Race, Gender, and SES: Health Paradoxes. In Schulz, A. J., & Mullings, L. (Eds.). *Gender, race, class, and health: Intersectional approaches*. San Francisco, CA: Jossey-Bass.
- McPherson, J. M. (1991). *Abraham Lincoln and the second American revolution*. Oxford University Press.
- Nier III, C. L. (1998). Perpetuation of Segregation: Toward a New Historical and Legal Interpretation of Redlining Under the Fair Housing Act. *J. Marshall L. Rev.*, 32, 617.
- North Carolina Center for Health Statistics. (2012). North Carolina vital statistics, Volume 1: Population, births, deaths, marriages, divorces.
- O'Scannlain, D. F. (2010). Natural law in the American tradition, *The Fordham Law Review*, 79, 1513.
- P. Law 88-352. (1964). The Civil Rights Act of 1964.

P. Law 90-284. (1968). The Fair Housing Act.

Schill, M. H., & Wachter, S. M. (1995). Housing market constraints and spatial stratification by income and race. *Housing Policy Debate*, 6(1), 141-167.

Wilson, M. N. (1997). Women of color: Social challenges of dual minority status and competing community contexts. *American Journal of Community Psychology*, 25(5), 563-564.

APPENDIX A: 2011 NORTH CAROLINA CONSUMER ASSESSMENT OF HEALTH PLANS AND
SYSTEMS (CAHPS) 4.0 ADULT MEDICAID SURVEY

2011 North Carolina Medicaid Survey

**Version: CAHPS 4.0 Adult Medicaid
Questionnaire**

Language: English

INTRODUCTION: “Hello, this is _____ and I am calling from the University of North Carolina at Charlotte on behalf of North Carolina Medicaid in connection with an effort to improve health care.

Is this the home of _____?

target respondent

IF NOT, say, “Do you know the phone number where I might reach *target respondent*? (record new phone number and then call.

IF YES, say, “I’d like to talk with *target respondent* about his/her healthcare, is *he/she* available?”

IF PERSON AVAILABLE: When selected person answers, repeat introduction and continue.

IF PERSON NOT AVAILABLE: “Can you tell me a convenient time to call back to speak with (him/her)?”

RECORD CALL BACK NOTES

Let me tell you a little about the study before we continue. This interview will last approximately 20 minutes. We want you to know that your answers are confidential. You are a volunteer and may stop at any time. Your Medicaid benefits will not be affected in any way by your participation in the survey. No one at the doctor’s office or Medicaid will see any names or know how you answered. May I continue with the interview?

1. YES – Start Interview
2. NO – “Thank you for your time.”

1. E, Core 1 (Q1, 2006-07) (#1, p. 6, Data Specs) NC MED Our records show that you are now in Carolina Access or Medicaid? Is that right?
 - ¹ Yes → **If Yes, go to question #2**
 - ² No → **If No, “Thank you for your time.”**

Your Health Care in the Last 6 Months

These questions ask about your own health care. Do **not** include care you got when you stayed overnight in a hospital. Do **not** include the times you went for dental care visits.

2. E, Core 3 (Q26, 2006-07) (#3, p. 6, Data Specs) S01Q01 In the last 6 months, did you have an illness, injury, or condition that **needed care right away** in a clinic, emergency room, or doctor’s office?
 - ¹ Yes
 - ² No → **If No, go to question #5**

3. UT1 (Q30, 2006-07) S01Q02 (placement here not in accordance with CAHPS guidelines, but is consistent with the CHILD survey) In the last 6 months, how many times did you go to an emergency room to get care for yourself?
 - ⁰ None
 - ¹ 1
 - ² 2
 - ³ 3
 - ⁴ 4
 - ⁵ 5 to 9
 - ⁶ 10 or more

4. Core 4 (Q27, 2006-07) (#4, p. 6, Data Specs) S01Q03 MEETS HEALTH HOME TEAM CRITERION OF COMPREHENSIVE CARE MANAGEMENT In the last 6 months, when you **needed care right away**, how often did you get care as soon as you thought you needed?
 - ¹ Never
 - ² Sometimes
 - ³ Usually
 - ⁴ Always

5. E, Core 5 (Q28, 2006-07) (#5, p. 7, Data Specs) S01Q04 In the last 6 months, **not** counting the times you needed care right away, did you make any appointments for your health care at a doctor’s office or clinic?
 - ¹ Yes

² No → **If No, go to question #7**

6. Core 6 (Q29, 2006-07) (#6, p. 7, Data Specs) S01Q05 MEETS HEALTH HOME TEAM CRITERION OF COMPREHENSIVE CARE MANAGEMENT In the last 6 months, **not** counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?

¹ Never

² Sometimes

³ Usually

⁴ Always

7. E, Core 7 (Q31, 2006-07) (#7, p. 7, Data Specs) S01Q06 In the last 6 months, **not** counting the times you went to an emergency room, how many times did you go to a doctor's office or clinic to get health care for yourself?

⁰ None → **If None, go to question #21**

¹ 1

² 2

³ 3

⁴ 4

⁵ 5 to 9

⁶ 10 or more

8. H1 (not in 2006-07) (#8, p. 7, Data Specs) S01Q07 MEETS HEALTH HOME TEAM CRITERION OF HEALTH PROMOTION In the last 6 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

¹ Never

² Sometimes

³ Usually

⁴ Always

9. Core 8 (Q44, 2006-07) (#12, p. 8, Data Specs) S01Q08 Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate all your health care in the last 6 months?

⁰⁰ 0 Worst health care possible

⁰¹ 1

⁰² 2

⁰³ 3

⁰⁴ 4

- 05 5
06 6
07 7
08 8
09 9
10 10 Best health care possible

10. CC9 (Q45 2006-07) S01Q09 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS In the last 6 months, did you have a health problem for which you needed special medical equipment, such as a cane, a wheelchair, or oxygen equipment?
1 Yes
2 No → **If No, go to question #12**
11. CC10 (Q46 2006-07) S01Q10 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS In the last 6 months, how often was it easy to get the medical equipment you needed through your health plan?
1 Never
2 Sometimes
3 Usually
4 Always
12. CC11 (Q47 2006-07) S01Q11 In the last 6 months, did you have any health problems that needed special **therapy**, such as physical, occupational, or speech therapy?
1 Yes
2 No → **If No, go to question #14**
13. CC12 (Q48 2006-07) S01Q12 In the last 6 months, how often was it easy to get the special therapy you needed through your health plan?
1 Never
2 Sometimes
3 Usually
4 Always

14. CC13 (Q49 2006-07) S01Q13 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS Home health care or assistance means home nursing, help with bathing or dressing, and help with basic household tasks.

In the last 6 months, did you need someone to come into your home to give you home health care or assistance?

- ¹ Yes
² No → **If No, go to question #16**

15. CC14 (Q50 2006-07) S01Q14 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS In the last 6 months, how often was it easy to get home health care or assistance through your health plan?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

16. MH1 (not in 2006-07) S01Q15 In general, how would you rate your overall **mental or emotional health**?

- ¹ Excellent
² Very good
³ Good
⁴ Fair
⁵ Poor

17. MH2 (not in 2006-07) S01Q16 MEETS HEALTH HOME TEAM CRITERION OF CARE COORDINATION In the last 6 months, did you need any treatment or counseling for a personal or family problem?

- ¹ Yes
² No → **If No, go to question #19**

18. MH3 (not in 2006-07) S01Q17 MEETS HEALTH HOME TEAM CRITERION OF CARE COORDINATION In the last 6 months, how often was it easy to get the treatment or counseling you needed through your health plan?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

19. I-1 (Q51 2006-07) S01Q18 An interpreter is someone who repeats or signs what one person says in a language used by another person.
In the last 6 months, did you need an interpreter to help you speak with doctors or other health providers?
- ¹ Yes
² No → **If No, go to question #21**
20. I-2 (Q52 2006-07) S01Q19 In the last 6 months, when you needed an interpreter to help you speak with doctors or other health providers, how often did you get one?
- ¹ Never
² Sometimes
³ Usually
⁴ Always

Your Personal Doctor (Health Provider)

A personal health provider is the doctor or nurse who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Your personal health provider is the one you would see if you need a check-up, want advice about a health problem, or get sick or hurt.

21. E, Core 9 (Q2, 2006-07) (13, p. 8, Data Specs) S02Q01 Do you have a personal health provider?
- ¹ Yes
² No → **If No, go to question #50**
22. CC1 (Q3, 2006-07, edit as shown) S02Q02 Is this person a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant?
- ¹ General doctor (Family practice or internal medicine)
² Specialist doctor
³ Nurse Practitioner
⁴ Physician Assistant
23. CC2 (Q4, 2006-07, edit as shown) S02Q03 How many months or years have you been going to your personal health provider?
- ¹ Less than 6 months
² At least 6 months but less than 1 year
³ At least 1 year but less than 2 years
⁴ At least 2 years but less than 5 years

⁵ 5 years or more

24. CC3 (Q5, 2006-07) S02Q04 Do you have a physical or medical condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?

¹ Yes

² No → **If No, go to question #26**

25. CC4 (Q6, 2006-07, edit as shown) S02Q05 Does your personal health provider understand how any health problems you have affect your day-to-day life?

¹ Yes

² No

26. Core 10 (not in 2006-07) (14, p. 8, Data Specs) S02Q06 In the last 6 months, how many times did you visit your personal health provider to get care for yourself?

⁰ None → **If None, go to question #40**

¹ 1

² 2

³ 3

⁴ 4

⁵ 5 to 9

⁶ 10 or more

27. Core 11 (Q38, 2006-07, edit as shown) (15, p. 8, Data Specs) S02Q07 In the last 6 months, how often did your personal health provider explain things in a way that was easy to understand?

¹ Never

² Sometimes

³ Usually

⁴ Always

28. Core 12 (Q36, 2006-07, edit as shown) (16, p. 8, Data Specs) S02Q08 In the last 6 months, how often did your personal health provider listen carefully to you?

¹ Never

² Sometimes

³ Usually

⁴ Always

29. C1 (Q37 2006-07) S02Q09 In the last 6 months, how often did you have a hard time speaking with or understanding your personal health provider because you spoke different languages?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
30. Core 13 (Q39, 2006-07, edit as shown) (17, p. 9, Data Specs) S02Q10 In the last 6 months, how often did your personal health provider show respect for what you had to say?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
31. Core 14 (Q43, 2006-07, edit as shown) (18, p. 9, Data Specs) S02Q11 In the last 6 months, how often did your personal health provider spend enough time with you?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
32. CC6 (Q40 2006-07) S02Q12 MEETS HEALTH HOME TEAM CRITERION FOR INDIVIDUAL AND FAMILY SUPPORT We want to know how you, your doctors, and other health providers make decisions about your health care.
- In the last 6 months, were any decisions made about your health care?
- ¹ Yes
² No → **If No, go to question #35**
33. CC7 (Q41 2006-07) S02Q13 MEETS HEALTH HOME TEAM CRITERION FOR INDIVIDUAL AND FAMILY SUPPORT In the last 6 months, how often were you involved as much as you wanted in these decisions about your health care?
- ¹ Never
² Sometimes
³ Usually
⁴ Always

34. CC8 (Q42 2006-07) S02Q14 In the last 6 months, how often was it easy to get your doctors or other health providers to agree with you on the best way to manage your health conditions or problems?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
35. H5 (#19, p. 9, Data Specs) S02Q15 In the last 6 months, did you get care from a doctor or other health provider besides your personal doctor?
- ¹ Yes
² No → **If No, go to question #38**
36. OHP3 (not in 2006-07) S02Q16 MEETS HEALTH HOME TEAM CRITERION FOR COMPREHENSIVE TRANSITIONAL CARE In the last 6 months, did anyone from your doctor's office, clinic, or CAROLINA ACCESS/MEDICAID help coordinate your care from other health providers who were not your personal health provider?
- ¹ Yes
² No → **If No, go to question #38**
37. OHP5 (not in 2006-07) S02Q17 MEETS HEALTH HOME TEAM CRITERION FOR CARE COORDINATION How satisfied are you with the help you received to coordinate your care in the last 6 months?
- ¹ Very dissatisfied
² Dissatisfied
³ Neither dissatisfied nor satisfied
⁴ Satisfied
⁵ Very satisfied
38. CO3 (not in 2006-07, replaces CO1) S02Q18 In the last 6 months, did you phone your personal health provider's office **after** regular office hours to get help or advice for yourself?
- ¹ Yes
² No → **If No, go to question #40**

39. CO4 (not in 2006-07, replaces CO2) S02Q19 In the last 6 months, when you phoned after regular office hours, how often did you get the help or advice you needed?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
40. Core 15 (Q7, 2006-07) (21, p. 10, Data Specs) S02Q20 Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate your personal health provider?
- ⁰⁰ 0 Worst personal health provider possible
⁰¹ 1
⁰² 2
⁰³ 3
⁰⁴ 4
⁰⁵ 5
⁰⁶ 6
⁰⁷ 7
⁰⁸ 8
⁰⁹ 9
¹⁰ 10 Best personal health provider possible
41. PD1 (Q8, 2006-07, edit as shown) S02Q21 Did you have the same personal health provider **before** you joined CAROLINA ACCESS or MEDICAID?
- ¹ Yes → **If Yes, go to question #43**
² No
42. PD2 (Q9, 2006-07, edit as shown) S02Q22 Since you joined CAROLINA ACCESS or MEDICAID, how often was it easy to get a personal health provider you are happy with?
- ¹ Never
² Sometimes
³ Usually
⁴ Always

Trust in Your Health Provider

Please think about the health provider you usually see when you are sick or need advice about your health.

43. TST1 (Q10, 2006-07) S03Q01 Is this personal health provider a male or female?
- ¹ Male
² Female
44. TST2 (Q11, 2006-07) S03Q02 What is the race of this health provider?
- ¹ White
² Black or African-American
³ Asian
⁴ Native Hawaiian or other Pacific Islander
⁵ American Indian or Alaska Native
⁶ Other
45. TST3 (Q12, 2006-07) S03Q03 I think my personal health provider may not refer me to a specialist when needed.
- ¹ Strongly Agree
² Somewhat Agree
³ Neither Agree/Disagree
⁴ Somewhat Disagree
⁵ Strongly Disagree
46. TST4 (Q13, 2006-07) S03Q04 I trust my personal health provider to put my medical needs above all other considerations when treating my medical problems.
- ¹ Strongly Agree
² Somewhat Agree
³ Neither Agree/Disagree
⁴ Somewhat Disagree
⁵ Strongly Disagree
47. TST5 (Q15, 2006-07) S03Q05 I sometimes think that my personal health provider might perform unnecessary tests or procedures.
- ¹ Strongly Agree
² Somewhat Agree
³ Neither Agree/Disagree
⁴ Somewhat Disagree
⁵ Strongly Disagree
48. TST6 (Q16, 2006-07) S03Q06 My personal health provider's medical skills are not as good as they should be.

- Strongly Agree
 Somewhat Agree
 Neither Agree/Disagree
 Somewhat Disagree
 Strongly Disagree

49. TST7 (Q17, 2006-07) S03Q07 My personal health provider always pays full attention to what I am trying to tell him or her.

- Strongly Agree
 Somewhat Agree
 Neither Agree/Disagree
 Somewhat Disagree
 Strongly Disagree

Getting Health Care From Specialists

When you answer the next questions, do **not** include dental visits or care you got when you stayed overnight in a hospital.

50. E, Core 16 (Q18, 2006-07) (22, p. 10, Data Specs) S04Q01 Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care. In the last 6 months, did you try to make any appointments to see a specialist?

- Yes
 No → **If No, go to question #56**

51. Core 17 (Q19, 2006-07) (23, p. 10, Data Specs) S04Q02 In the last 6 months, how often was it easy to get appointments with specialists?

- Never
 Sometimes
 Usually
 Always

52. Core 18 (Q20?, 2006-07) (24, p. 10, Data Specs) S04Q03 How many specialists have you seen in the last 6 months?

- None → **If None, go to question #56**
 1 specialist
 2
 3
 4

⁵ 5 or more specialists

53. CC5 (Q21, 2006-07) S04Q04 In the last 6 months, how many times did you go to specialists for care for yourself?

¹ 1

² 2

³ 3

⁴ 4

⁵ 5 to 9

⁶ 10 or more

54. Core 19 (Q22, 2006-07) (25, p. 10, Data Specs) S04Q05 We want to know your rating of the specialist you saw most often in the last 6 months. Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate the specialist?

⁰⁰ 0 Worst specialist possible

⁰¹ 1

⁰² 2

⁰³ 3

⁰⁴ 4

⁰⁵ 5

⁰⁶ 6

⁰⁷ 7

⁰⁸ 8

⁰⁹ 9

¹⁰ 10 Best specialist possible

55. UT2 (Q23 2006-07) S04Q06 In the last 6 months, was the specialist you saw most often the same doctor as your personal doctor?

¹ Yes

² No

Your Health Plan

The next questions ask about your experience with your health plan.

56. E, Core 20 (not in 2006-07) (26, p. 11, Data Specs) S05Q01 In the last 6 months, did you try to get any kind of care, tests, or treatment through your health provider or health plan?

¹ Yes

² No → **If No, go to question #58**

57. Core 21 (Q32, 2006-07) (27, p. 11, Data Specs) S05Q02 MEETS HEALTH HOME TEAM CRITERION OF COMPREHENSIVE CARE MANAGEMENT
In the last 6 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health provider or health plan?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
58. E, Core 22 (30, p. 12, Data Specs) S05Q03 In the last 6 months, did you try to get information or help from office staff at your health provider or health plan?
- ¹ Yes
² No → **If No, go to question #61**
59. Core 23 (Q35, 2006-07) S05Q04 In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic give you the information or help that you needed?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
60. Core 24 (Q34, 2006-07) (32, p. 12, Data Specs) S05Q05 In the last 6 months, how often did office staff at your health plan, doctor's office, or clinic treat you with courtesy and respect?
- ¹ Never
² Sometimes
³ Usually
⁴ Always
61. E, Core 25 and Core 26 (not in 2006-2007) S05Q06 In the last 6 months, how often were any forms from your health provider or health plan easy to fill out?
- ¹ Did not fill out forms
² Filled out forms and it was never easy
³ Filled out forms and it was sometimes easy
⁴ Filled out forms and it was usually easy
⁵ Filled out forms and it was always easy

62. E, Core 27 (Q56,2006-07) (35, p. 13, Data Specs) S05Q07 Using any number from 0 to 10, where 0 is the worst possible and 10 is the best possible, what number would you use to rate Carolina Access or Medicaid now?

- 00 0 Worst Carolina Access or Medicaid now
 01 1
 02 2
 03 3
 04 4
 05 5
 06 6
 07 7
 08 8
 09 9
 10 10 Best Carolina Access or Medicaid now

63. TRNS-1 E (Not in 2006-07) S05Q08 In the last 6 months, if you needed transportation help from a non-family member to get to a medical appointment or to get a prescription filled, how often did you get it?

- 1 Did not need any assistance
 2 Needed assistance and never received it
 3 Needed assistance and sometime received it
 4 Needed assistance and usually received it
 5 Needed assistance and always received it

64. PM1, E (Q53, 2006-07) S05Q09 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS In the last 6 months, did you get any new prescription medicines or refill a prescription?

- 1 Yes
 2 No → **If No, go to question #67**

65. PM2 (Q54, 2006-07) S05Q10 MEETS HEALTH HOME TEAM CRITERION OF REFERRAL TO COMMUNITY AND SOCIAL SUPPORTS In the last 6 months, how often was it easy to get your prescription medicine from your health plan?

- 1 Never
 2 Sometimes
 3 Usually
 4 Always

66. PM3 (Q55, 2006-07) S05Q11 In the last 6 months, how often did you get the prescription medicine you needed through your health plan?

- ¹ Never
² Sometimes
³ Usually
⁴ Always

About You

67. E, Core 28 (Q57, 2006-07) (36, p. 13, Data Specs) S06Q01 In general, how would you rate your overall health?
- ¹ Excellent
² Very good
³ Good
⁴ Fair
⁵ Poor
68. E, CC15 (Q58, 2006-07) S06Q02 Because of any impairment or health problem, do you need the help of other persons with your personal care needs, such as eating, dressing, or getting around the house?
- ¹ Yes
² No
69. E, CC16 (Q59, 2006-07) S06Q03 Because of any impairment or health problem, do you need help with your routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?
- ¹ Yes
² No
70. E, CC17 (Q60, 2006-07) S06Q04 Do you have a physical or medical condition that seriously interferes with your independence, participation in the community, or quality of life?
- ¹ Yes
² No
71. E, CC18 (Q61, 2006-07) S06Q05 MEETS HEALTH HOME TEAM CRITERION FOR COMPREHENSIVE TRANSITIONAL CARE In the last 6 months, have you been a patient in a hospital overnight or longer?
- ¹ Yes
² No

72. E, Core 29 (Q63, 2006-07) (46, p. 16, Data Specs) S06Q06 In the past 6 months, have you seen a health provider 3 or more times for the same condition or problem?
- ¹ Yes
- ² No → **If No, go to question #74**
73. Core 30 (Q62, 2006-07) (47, p. 16, Data Specs) S06Q07 Is this a condition or problem that has lasted for at least 3 months? Do **not** include pregnancy or menopause.
- ¹ Yes
- ² No
74. E, Core 31 (not in 2006-07) (48, p. 16, Data Specs) S06Q08 Do you now need or take medicine prescribed by a doctor? Do **not** include birth control.
- ¹ Yes
- ² No → **If No, go to question #76**
75. Core 32 (not in 2006-07) (49, p. 16, Data Specs) S06Q09 Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.
- ¹ Yes
- ² No
76. E, Core 33 (Q66, 2006-07) (50, p. 16, Data Specs) S06Q10 What is your age?
- ¹ 18 to 24
- ² 25 to 34
- ³ 35 to 44
- ⁴ 45 to 54
- ⁵ 55 to 64
- ⁶ 65 to 74
- ⁷ 75 or older
77. E, Core 34 (Q67, 2006-07) (51, p. 16, Data Specs) S06Q11 Are you male or female?
- ¹ Male
- ² Female
78. E, Core 35 (Q68, 2006-07) (52, p. 17, Data Specs) S06Q12 What is the highest grade or level of school that you have completed?

- ¹ 8th grade or less
- ² Some high school, but did not graduate
- ³ High school graduate or GED
- ⁴ Some college or 2-year degree
- ⁵ 4-year college graduate
- ⁶ More than 4-year college degree
79. E, Core 36 (Q69, 2006-07) (53, p. 17, Data Specs) S06Q13 Are you of Hispanic or Latino origin or descent?
- ¹ Yes, Hispanic or Latino
- ² No, Not Hispanic or Latino
80. E, Core 37 (Q70, 2006-07) (54, p. 17, Data Specs) S06Q14 What is your race? Please indicate one or more.
- ¹ White
- ² Black or African-American
- ³ Asian
- ⁴ Native Hawaiian or other Pacific Islander
- ⁵ American Indian or Alaska Native
- ⁶ Other
81. E, I3 (Q71, 2006-07) S06Q15 What language do you **mainly** speak at home?
- ¹ English
- ² Spanish
- ³ Some other language
82. E, LANG1 S06Q16 What language do you **mainly** speak when talking with your personal doctor or health provider?
- ¹ English
- ² Spanish
- ³ Some other language

Communication and Computer Use

83. E, COMM-1 (Not in 2006-07) S07Q01 Do you use the internet on a regular basis by using a computer or “smart” cell phone?
- ¹ Yes, use computer
- ² Yes, use “smart” cell phone

- ³ Yes, use both computer and “smart” cell phone
⁴ No

84. E, COMM-2 (Not in 2006-07) S07Q02 Why do you use the internet on a regular basis? Choose all answers that describe your internet use.

- ¹ Do not use the internet on a regular basis
² To play games
³ To send and receive e-mail
⁴ To send and receive text messages on a cell phone
⁵ To send and receive instant messages
⁶ To find news and current events
⁷ To communicate on Facebook, Twitter, Linked-In, MySpace or other social media
⁸ Other

85. E, COMM-3 (Not in 2006-07) S07Q03 In general, how often do you use the internet?

- ¹ Daily
² Several Times/Week
³ Once/Week
⁴ A few times/month
⁵ Once/month or less often

“Thank you for your participation.”

Interviewer Evaluation

86. Were there any questions you thought might not have been understood?

- ¹ Yes
² No

87. First question misunderstood: _____

88. Second question misunderstood: _____

89. Third question misunderstood: _____

90. How would you rate the respondent’s overall cooperation during the interview?

- ¹ Excellent
² Good
³ Fair
⁴ Poor

91. Any other comments (BE SPECIFIC):

APPENDIX B: 2012 AMERICAN COMMUNITY SURVEY

13192018



U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

THE American Community Survey

This booklet shows the content of the American Community Survey questionnaire.

Please complete this form and return it as soon as possible after receiving it in the mail.

This form asks for information about the people who are living or staying at the address on the mailing label and about the house, apartment, or mobile home located at the address on the mailing label.



If you need help or have questions about completing this form, please call **1-800-354-7271**. The telephone call is free.

Telephone Device for the Deaf (TDD):
Call 1-800-582-8330. The telephone call is free.

¿NECESITA AYUDA? Si usted habla español y necesita ayuda para completar su cuestionario, llame sin cargo alguno al **1-877-833-5625**. Usted también puede pedir un cuestionario en español o completar su entrevista por teléfono con un entrevistador que habla español.

For more information about the American Community Survey, visit our web site at: <http://www.census.gov/acs/www/>

Start Here

➔ **Please print today's date.**
Month Day Year

➔ **Please print the name and telephone number of the person who is filling out this form.** We may contact you if there is a question.
Last Name

First Name MI

Area Code + Number
 -

➔ **How many people are living or staying at this address?**

- **INCLUDE** everyone who is living or staying here for more than 2 months.
- **INCLUDE** yourself if you are living here for more than 2 months.
- **INCLUDE** anyone else staying here who does not have another place to stay, even if they are here for 2 months or less.
- **DO NOT INCLUDE** anyone who is living somewhere else for more than 2 months, such as a college student living away or someone in the Armed Forces on deployment.

Number of people

➔ **Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then complete the rest of the form.**

FORM **ACS-1(INFO)(2012)KFI**
(07-14-2011)

OMB No. 0607-0810



Person 1	Person 2
<p>(Person 1 is the person living or staying here in whose name this house or apartment is owned, being bought, or rented. If there is no such person, start with the name of any adult living or staying here.)</p> <p>1 What is Person 1's name? Last Name (Please print) <input style="width: 150px;" type="text"/> First Name <input style="width: 100px;" type="text"/> MI <input style="width: 20px;" type="text"/></p> <p>2 How is this person related to Person 1? <input checked="" type="checkbox"/> Person 1</p> <p>3 What is Person 1's sex? Mark (X) ONE box. <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>4 What is Person 1's age and what is Person 1's date of birth? Please report babies as age 0 when the child is less than 1 year old. Print numbers in boxes. Age (in years) <input style="width: 30px;" type="text"/> Month <input style="width: 30px;" type="text"/> Day <input style="width: 30px;" type="text"/> Year of birth <input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/></p> <p>→ NOTE: Please answer BOTH Question 5 about Hispanic origin and Question 6 about race. For this survey, Hispanic origins are not races.</p> <p>5 Is Person 1 of Hispanic, Latino, or Spanish origin? <input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin <input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, another Hispanic, Latino, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. <input style="width: 150px;" type="text"/></p> <p>6 What is Person 1's race? Mark (X) one or more boxes. <input type="checkbox"/> White <input type="checkbox"/> Black, African Am., or Negro <input type="checkbox"/> American Indian or Alaska Native – Print name of enrolled or principal tribe. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Asian Indian <input type="checkbox"/> Japanese <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Chinese <input type="checkbox"/> Korean <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Filipino <input type="checkbox"/> Vietnamese <input type="checkbox"/> Samoan <input type="checkbox"/> Other Asian – Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Some other race – Print race. <input style="width: 150px;" type="text"/></p>	<p>1 What is Person 2's name? Last Name (Please print) <input style="width: 150px;" type="text"/> First Name <input style="width: 100px;" type="text"/> MI <input style="width: 20px;" type="text"/></p> <p>2 How is this person related to Person 1? Mark (X) ONE box. <input type="checkbox"/> Husband or wife <input type="checkbox"/> Son-in-law or daughter-in-law <input type="checkbox"/> Biological son or daughter <input type="checkbox"/> Other relative <input type="checkbox"/> Adopted son or daughter <input type="checkbox"/> Roomer or boarder <input type="checkbox"/> Stepson or stepdaughter <input type="checkbox"/> Housemate or roommate <input type="checkbox"/> Brother or sister <input type="checkbox"/> Unmarried partner <input type="checkbox"/> Father or mother <input type="checkbox"/> Foster child <input type="checkbox"/> Grandchild <input type="checkbox"/> Other nonrelative <input type="checkbox"/> Parent-in-law</p> <p>3 What is Person 2's sex? Mark (X) ONE box. <input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>4 What is Person 2's age and what is Person 2's date of birth? Please report babies as age 0 when the child is less than 1 year old. Print numbers in boxes. Age (in years) <input style="width: 30px;" type="text"/> Month <input style="width: 30px;" type="text"/> Day <input style="width: 30px;" type="text"/> Year of birth <input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/><input style="width: 30px;" type="text"/></p> <p>→ NOTE: Please answer BOTH Question 5 about Hispanic origin and Question 6 about race. For this survey, Hispanic origins are not races.</p> <p>5 Is Person 2 of Hispanic, Latino, or Spanish origin? <input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin <input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano <input type="checkbox"/> Yes, Puerto Rican <input type="checkbox"/> Yes, Cuban <input type="checkbox"/> Yes, another Hispanic, Latino, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. <input style="width: 150px;" type="text"/></p> <p>6 What is Person 2's race? Mark (X) one or more boxes. <input type="checkbox"/> White <input type="checkbox"/> Black, African Am., or Negro <input type="checkbox"/> American Indian or Alaska Native – Print name of enrolled or principal tribe. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Asian Indian <input type="checkbox"/> Japanese <input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Chinese <input type="checkbox"/> Korean <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Filipino <input type="checkbox"/> Vietnamese <input type="checkbox"/> Samoan <input type="checkbox"/> Other Asian – Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on. <input style="width: 150px;" type="text"/> <input type="checkbox"/> Some other race – Print race. <input style="width: 150px;" type="text"/></p>



Person 3	Person 4																																
<p>1 What is Person 3's name? Last Name <i>(Please print)</i> <input style="width: 150px;" type="text"/> First Name <input style="width: 100px;" type="text"/> MI <input style="width: 20px;" type="text"/></p>	<p>1 What is Person 4's name? Last Name <i>(Please print)</i> <input style="width: 150px;" type="text"/> First Name <input style="width: 100px;" type="text"/> MI <input style="width: 20px;" type="text"/></p>																																
<p>2 How is this person related to Person 1? <i>Mark (X) ONE box.</i></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Husband or wife</td> <td><input type="checkbox"/> Son-in-law or daughter-in-law</td> </tr> <tr> <td><input type="checkbox"/> Biological son or daughter</td> <td><input type="checkbox"/> Other relative</td> </tr> <tr> <td><input type="checkbox"/> Adopted son or daughter</td> <td><input type="checkbox"/> Roomer or boarder</td> </tr> <tr> <td><input type="checkbox"/> Stepson or stepdaughter</td> <td><input type="checkbox"/> Housemate or roommate</td> </tr> <tr> <td><input type="checkbox"/> Brother or sister</td> <td><input type="checkbox"/> Unmarried partner</td> </tr> <tr> <td><input type="checkbox"/> Father or mother</td> <td><input type="checkbox"/> Foster child</td> </tr> <tr> <td><input type="checkbox"/> Grandchild</td> <td><input type="checkbox"/> Other nonrelative</td> </tr> <tr> <td><input type="checkbox"/> Parent-in-law</td> <td></td> </tr> </table>	<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Son-in-law or daughter-in-law	<input type="checkbox"/> Biological son or daughter	<input type="checkbox"/> Other relative	<input type="checkbox"/> Adopted son or daughter	<input type="checkbox"/> Roomer or boarder	<input type="checkbox"/> Stepson or stepdaughter	<input type="checkbox"/> Housemate or roommate	<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Unmarried partner	<input type="checkbox"/> Father or mother	<input type="checkbox"/> Foster child	<input type="checkbox"/> Grandchild	<input type="checkbox"/> Other nonrelative	<input type="checkbox"/> Parent-in-law		<p>2 How is this person related to Person 1? <i>Mark (X) ONE box.</i></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Husband or wife</td> <td><input type="checkbox"/> Son-in-law or daughter-in-law</td> </tr> <tr> <td><input type="checkbox"/> Biological son or daughter</td> <td><input type="checkbox"/> Other relative</td> </tr> <tr> <td><input type="checkbox"/> Adopted son or daughter</td> <td><input type="checkbox"/> Roomer or boarder</td> </tr> <tr> <td><input type="checkbox"/> Stepson or stepdaughter</td> <td><input type="checkbox"/> Housemate or roommate</td> </tr> <tr> <td><input type="checkbox"/> Brother or sister</td> <td><input type="checkbox"/> Unmarried partner</td> </tr> <tr> <td><input type="checkbox"/> Father or mother</td> <td><input type="checkbox"/> Foster child</td> </tr> <tr> <td><input type="checkbox"/> Grandchild</td> <td><input type="checkbox"/> Other nonrelative</td> </tr> <tr> <td><input type="checkbox"/> Parent-in-law</td> <td></td> </tr> </table>	<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Son-in-law or daughter-in-law	<input type="checkbox"/> Biological son or daughter	<input type="checkbox"/> Other relative	<input type="checkbox"/> Adopted son or daughter	<input type="checkbox"/> Roomer or boarder	<input type="checkbox"/> Stepson or stepdaughter	<input type="checkbox"/> Housemate or roommate	<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Unmarried partner	<input type="checkbox"/> Father or mother	<input type="checkbox"/> Foster child	<input type="checkbox"/> Grandchild	<input type="checkbox"/> Other nonrelative	<input type="checkbox"/> Parent-in-law	
<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Son-in-law or daughter-in-law																																
<input type="checkbox"/> Biological son or daughter	<input type="checkbox"/> Other relative																																
<input type="checkbox"/> Adopted son or daughter	<input type="checkbox"/> Roomer or boarder																																
<input type="checkbox"/> Stepson or stepdaughter	<input type="checkbox"/> Housemate or roommate																																
<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Unmarried partner																																
<input type="checkbox"/> Father or mother	<input type="checkbox"/> Foster child																																
<input type="checkbox"/> Grandchild	<input type="checkbox"/> Other nonrelative																																
<input type="checkbox"/> Parent-in-law																																	
<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Son-in-law or daughter-in-law																																
<input type="checkbox"/> Biological son or daughter	<input type="checkbox"/> Other relative																																
<input type="checkbox"/> Adopted son or daughter	<input type="checkbox"/> Roomer or boarder																																
<input type="checkbox"/> Stepson or stepdaughter	<input type="checkbox"/> Housemate or roommate																																
<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Unmarried partner																																
<input type="checkbox"/> Father or mother	<input type="checkbox"/> Foster child																																
<input type="checkbox"/> Grandchild	<input type="checkbox"/> Other nonrelative																																
<input type="checkbox"/> Parent-in-law																																	
<p>3 What is Person 3's sex? <i>Mark (X) ONE box.</i></p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>3 What is Person 4's sex? <i>Mark (X) ONE box.</i></p> <p><input type="checkbox"/> Male <input checked="" type="checkbox"/> Female</p>																																
<p>4 What is Person 3's age and what is Person 3's date of birth? <i>Please report babies as age 0 when the child is less than 1 year old.</i> <i>Print numbers in boxes.</i></p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Age (in years)</td> <td style="text-align: center;">Month</td> <td style="text-align: center;">Day</td> <td style="text-align: center;">Year of birth</td> </tr> <tr> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 60px;" type="text"/></td> </tr> </table>	Age (in years)	Month	Day	Year of birth	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 60px;" type="text"/>	<p>4 What is Person 4's age and what is Person 4's date of birth? <i>Please report babies as age 0 when the child is less than 1 year old.</i> <i>Print numbers in boxes.</i></p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Age (in years)</td> <td style="text-align: center;">Month</td> <td style="text-align: center;">Day</td> <td style="text-align: center;">Year of birth</td> </tr> <tr> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 30px;" type="text"/></td> <td style="text-align: center;"><input style="width: 60px;" type="text"/></td> </tr> </table>	Age (in years)	Month	Day	Year of birth	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 60px;" type="text"/>																
Age (in years)	Month	Day	Year of birth																														
<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 60px;" type="text"/>																														
Age (in years)	Month	Day	Year of birth																														
<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 30px;" type="text"/>	<input style="width: 60px;" type="text"/>																														
<p>→ NOTE: Please answer BOTH Question 5 about Hispanic origin and Question 6 about race. For this survey, Hispanic origins are not races.</p>	<p>→ NOTE: Please answer BOTH Question 5 about Hispanic origin and Question 6 about race. For this survey, Hispanic origins are not races.</p>																																
<p>5 Is Person 3 of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, Cuban</p> <p><input type="checkbox"/> Yes, another Hispanic, Latino, or Spanish origin – <i>Print origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.</i> <input style="width: 150px;" type="text"/></p>	<p>5 Is Person 4 of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, Cuban</p> <p><input type="checkbox"/> Yes, another Hispanic, Latino, or Spanish origin – <i>Print origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.</i> <input style="width: 150px;" type="text"/></p>																																
<p>6 What is Person 3's race? <i>Mark (X) one or more boxes.</i></p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black, African Am., or Negro</p> <p><input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe.</i> <input style="width: 150px;" type="text"/></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Asian Indian</td> <td><input type="checkbox"/> Japanese</td> <td><input type="checkbox"/> Native Hawaiian</td> </tr> <tr> <td><input type="checkbox"/> Chinese</td> <td><input type="checkbox"/> Korean</td> <td><input type="checkbox"/> Guamanian or Chamorro</td> </tr> <tr> <td><input type="checkbox"/> Filipino</td> <td><input type="checkbox"/> Vietnamese</td> <td><input type="checkbox"/> Samoan</td> </tr> <tr> <td><input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/></td> <td><input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/></td> <td></td> </tr> </table> <p><input type="checkbox"/> Some other race – <i>Print race.</i> <input style="width: 150px;" type="text"/></p>	<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian	<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro	<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan	<input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/>	<input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/>		<p>6 What is Person 4's race? <i>Mark (X) one or more boxes.</i></p> <p><input type="checkbox"/> White</p> <p><input type="checkbox"/> Black, African Am., or Negro</p> <p><input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe.</i> <input style="width: 150px;" type="text"/></p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Asian Indian</td> <td><input type="checkbox"/> Japanese</td> <td><input type="checkbox"/> Native Hawaiian</td> </tr> <tr> <td><input type="checkbox"/> Chinese</td> <td><input type="checkbox"/> Korean</td> <td><input type="checkbox"/> Guamanian or Chamorro</td> </tr> <tr> <td><input type="checkbox"/> Filipino</td> <td><input type="checkbox"/> Vietnamese</td> <td><input type="checkbox"/> Samoan</td> </tr> <tr> <td><input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/></td> <td><input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/></td> <td></td> </tr> </table> <p><input type="checkbox"/> Some other race – <i>Print race.</i> <input style="width: 150px;" type="text"/></p>	<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian	<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro	<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan	<input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/>	<input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/>									
<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian																															
<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro																															
<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan																															
<input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/>	<input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/>																																
<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian																															
<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro																															
<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan																															
<input type="checkbox"/> Other Asian – <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> <input style="width: 150px;" type="text"/>	<input type="checkbox"/> Other Pacific Islander – <i>Print race, for example, Fijian, Tongan, and so on.</i> <input style="width: 150px;" type="text"/>																																



Person 5

1 What is Person 5's name?
 Last Name (Please print) First Name MI

2 How is this person related to Person 1? Mark (X) ONE box.

<input type="checkbox"/> Husband or wife	<input type="checkbox"/> Son-in-law or daughter-in-law
<input type="checkbox"/> Biological son or daughter	<input type="checkbox"/> Other relative
<input type="checkbox"/> Adopted son or daughter	<input type="checkbox"/> Roomer or boarder
<input type="checkbox"/> Stepson or stepdaughter	<input type="checkbox"/> Housemate or roommate
<input type="checkbox"/> Brother or sister	<input type="checkbox"/> Unmarried partner
<input type="checkbox"/> Father or mother	<input type="checkbox"/> Foster child
<input type="checkbox"/> Grandchild	<input type="checkbox"/> Other nonrelative
<input type="checkbox"/> Parent-in-law	

3 What is Person 5's sex? Mark (X) ONE box.
 Male Female

4 What is Person 5's age and what is Person 5's date of birth?
 Please report babies as age 0 when the child is less than 1 year old.
 Print numbers in boxes.

Age (in years) Month Day Year of birth

→ **NOTE: Please answer BOTH Question 5 about Hispanic origin and Question 6 about race. For this survey, Hispanic origins are not races.**

5 Is Person 5 of Hispanic, Latino, or Spanish origin?

No, not of Hispanic, Latino, or Spanish origin
 Yes, Mexican, Mexican Am., Chicano
 Yes, Puerto Rican
 Yes, Cuban
 Yes, another Hispanic, Latino, or Spanish origin – Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↴

6 What is Person 5's race? Mark (X) one or more boxes.

White
 Black, African Am., or Negro
 American Indian or Alaska Native – Print name of enrolled or principal tribe. ↴

<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian
<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro
<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan
<input type="checkbox"/> Other Asian – Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↴	<input type="checkbox"/> Other Pacific Islander – Print race, for example, Fijian, Tongan, and so on. ↴	

Some other race – Print race. ↴

Person 6

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 7

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 8

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 9

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 10

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 11

Last Name (Please print) First Name MI

Sex Male Female Age (in years)

Person 12

Last Name (Please print) First Name MI

Sex Male Female Age (in years)



Housing

→ Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.

- 1 Which best describes this building?**
Include all apartments, flats, etc., even if vacant.
- A mobile home
 - A one-family house detached from any other house
 - A one-family house attached to one or more houses
 - A building with 2 apartments
 - A building with 3 or 4 apartments
 - A building with 5 to 9 apartments
 - A building with 10 to 19 apartments
 - A building with 20 to 49 apartments
 - A building with 50 or more apartments
 - Boat, RV, van, etc.

- 2 About when was this building first built?**
- 2000 or later – *Specify year* →

--	--	--	--
 - 1990 to 1999
 - 1980 to 1989
 - 1970 to 1979
 - 1960 to 1969
 - 1950 to 1959
 - 1940 to 1949
 - 1939 or earlier

- 3 When did PERSON 1 (listed on page 2) move into this house, apartment, or mobile home?**
- Month Year
- | | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

A Answer questions 4 – 6 if this is a *HOUSE OR A MOBILE HOME*; otherwise, *SKIP* to question 7a.

- 4 How many acres is this house or mobile home on?**
- Less than 1 acre → *SKIP* to question 6
 - 1 to 9.9 acres
 - 10 or more acres

- 5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property?**
- None
 - \$1 to \$999
 - \$1,000 to \$2,499
 - \$2,500 to \$4,999
 - \$5,000 to \$9,999
 - \$10,000 or more

- 6 Is there a business (such as a store or barber shop) or a medical office on this property?**
- Yes
 - No

- 7 a. How many separate rooms are in this house, apartment, or mobile home?**
Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.
- *INCLUDE* bedrooms, kitchens, etc.
 - *EXCLUDE* bathrooms, porches, balconies, foyers, halls, or unfinished basements.
- Number of rooms
- b. How many of these rooms are bedrooms?**
Count as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".
- Number of bedrooms

- 8 Does this house, apartment, or mobile home have –**
- | | Yes | No |
|--|--------------------------|--------------------------|
| a. hot and cold running water? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. a flush toilet? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. a bathtub or shower? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. a sink with a faucet? | <input type="checkbox"/> | <input type="checkbox"/> |
| e. a stove or range? | <input type="checkbox"/> | <input type="checkbox"/> |
| f. a refrigerator? | <input type="checkbox"/> | <input type="checkbox"/> |
| g. telephone service from which you can both make and receive calls? <i>Include cell phones.</i> | <input type="checkbox"/> | <input type="checkbox"/> |

- 9 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?**
- None
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6 or more

- 10 Which FUEL is used MOST for heating this house, apartment, or mobile home?**
- Gas: from underground pipes serving the neighborhood
 - Gas: bottled, tank, or LP
 - Electricity
 - Fuel oil, kerosene, etc.
 - Coal or coke
 - Wood
 - Solar energy
 - Other fuel
 - No fuel used



Person 1

➔ Please copy the name of Person 1 from page 2, then continue answering questions below.

Last Name

First Name MI

7 **Where was this person born?**

In the United States – Print name of state.

Outside the United States – Print name of foreign country, or Puerto Rico, Guam, etc.

8 **Is this person a citizen of the United States?**

Yes, born in the United States → SKIP to 10a

Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas

Yes, born abroad of U.S. citizen parent or parents

Yes, U.S. citizen by naturalization – Print year of naturalization

No, not a U.S. citizen

9 **When did this person come to live in the United States? Print numbers in boxes.**

Year

10 **a. At any time IN THE LAST 3 MONTHS, has this person attended school or college? Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a college degree.**

No, has not attended in the last 3 months → SKIP to question 11

Yes, public school, public college

Yes, private school, private college, home school

b. What grade or level was this person attending? Mark (X) ONE box.

Nursery school, preschool

Kindergarten

Grade 1 through 12 – Specify grade 1 – 12

College undergraduate years (freshman to senior)

Graduate or professional school beyond a bachelor's degree (for example: MA or PhD program, or medical or law school)

11 **What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.**

NO SCHOOLING COMPLETED

No schooling completed

NURSERY OR PRESCHOOL THROUGH GRADE 12

Nursery school

Kindergarten

Grade 1 through 11 – Specify grade 1 – 11

12th grade – **NO DIPLOMA**

HIGH SCHOOL GRADUATE

Regular high school diploma

GED or alternative credential

COLLEGE OR SOME COLLEGE

Some college credit, but less than 1 year of college credit

1 or more years of college credit, no degree

Associate's degree (for example: AA, AS)

Bachelor's degree (for example: BA, BS)

AFTER BACHELOR'S DEGREE

Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)

Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD)

Doctorate degree (for example: PhD, EdD)

F Answer question 12 if this person has a Bachelor's degree or higher. Otherwise, SKIP to question 13.

12 **This question focuses on this person's BACHELOR'S DEGREE. Please print below the specific major(s) of any BACHELOR'S DEGREES this person has received. (For example: chemical engineering, elementary teacher education, organizational psychology)**

13 **What is this person's ancestry or ethnic origin?**

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

14 **a. Does this person speak a language other than English at home?**

Yes

No → SKIP to question 15a

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

Very well

Well

Not well

Not at all

15 **a. Did this person live in this house or apartment 1 year ago?**

Person is under 1 year old → SKIP to question 16

Yes, this house → SKIP to question 16

No, outside the United States and Puerto Rico – Print name of foreign country, or U.S. Virgin Islands, Guam, etc., below; then SKIP to question 16

No, different house in the United States or Puerto Rico

b. Where did this person live 1 year ago?

Address (Number and street name)

Name of city, town, or post office

Name of U.S. county or municipio in Puerto Rico

Name of U.S. state or Puerto Rico **ZIP Code**



Person 1 (continued)

16 Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a - h.

- a. Insurance through a current or former employer or union... b. Insurance purchased directly from an insurance company... c. Medicare, for people 65 and older... d. Medicaid, Medical Assistance, or any kind of government-assistance plan... e. TRICARE or other military health care... f. VA (including those who have ever used or enrolled for VA health care)... g. Indian Health Service... h. Any other type of health insurance or health coverage plan - Specify

17 a. Is this person deaf or does he/she have serious difficulty hearing?

- Yes No

b. Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?

- Yes No

G Answer question 18a - c if this person is 5 years old or over. Otherwise, SKIP to the questions for Person 2 on page 12.

18 a. Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions?

- Yes No

b. Does this person have serious difficulty walking or climbing stairs?

- Yes No

c. Does this person have difficulty dressing or bathing?

- Yes No

H Answer question 19 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 12.

19 Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping?

- Yes No

20 What is this person's marital status?

- Now married Widowed Divorced Separated Never married -> SKIP to I

21 In the PAST 12 MONTHS did this person get:

- Married? Widowed? Divorced? Yes No

22 How many times has this person been married?

- Once Two times Three or more times

23 In what year did this person last get married?

Year []

I Answer question 24 if this person is female and 15 - 50 years old. Otherwise, SKIP to question 25a.

24 Has this person given birth to any children in the past 12 months?

- Yes No

25 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes No -> SKIP to question 26

b. Is this grandparent currently responsible for most of the basic needs of any grandchildren under the age of 18 who lives in this house or apartment?

- Yes No -> SKIP to question 26

c. How long has this grandparent been responsible for these grandchildren? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months 6 to 11 months 1 or 2 years 3 or 4 years 5 or more years

26 Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty Yes, on active duty during the last 12 months, but not now Yes, on active duty in the past, but not during the last 12 months No, training for Reserves or National Guard only -> SKIP to question 28a No, never served in the military -> SKIP to question 29a

27 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for EACH period in which this person served, even if just for part of the period.

- September 2001 or later August 1990 to August 2001 (including Persian Gulf War) September 1980 to July 1990 May 1975 to August 1980 Vietnam era (August 1964 to April 1975) March 1961 to July 1964 February 1955 to February 1961 Korean War (July 1950 to January 1955) January 1947 to June 1950 World War II (December 1941 to December 1946) November 1941 or earlier

28 a. Does this person have a VA service-connected disability rating?

- Yes (such as 0%, 10%, 20%, ... , 100%) No -> SKIP to question 29a

b. What is this person's service-connected disability rating?

- 0 percent 10 or 20 percent 30 or 40 percent 50 or 60 percent 70 percent or higher



Person 1 (continued)

39 a. LAST WEEK, did this person work for pay at a job (or business)?

- Yes -> SKIP to question 30
No - Did not work (or retired)

b. LAST WEEK, did this person do ANY work for pay, even for as little as one hour?

- Yes
No -> SKIP to question 35a

40 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

Text input field for address

If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.

b. Name of city, town, or post office

Text input field for city name

c. Is the work location inside the limits of that city or town?

- Yes
No, outside the city/town limits

d. Name of county

Text input field for county name

e. Name of U.S. state or foreign country

Text input field for state/country name

f. ZIP Code

Text input field for ZIP code

41 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

- Car, truck, or van; Motorcycle
Bus or trolley bus; Bicycle
Streetcar or trolley car; Walked
Subway or elevated; Worked at home -> SKIP to question 39a
Railroad; Other method
Ferryboat;
Taxicab;

J Answer question 32 if you marked "Car, truck, or van" in question 31. Otherwise, SKIP to question 33.

32 How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

Person(s) input field

33 What time did this person usually leave home to go to work LAST WEEK?

Hour, Minute, a.m./p.m. input fields

34 How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes input field

K Answer questions 35 - 38 if this person did NOT work last week. Otherwise, SKIP to question 39a.

35 a. LAST WEEK, was this person on layoff from a job?

- Yes -> SKIP to question 35c
No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc. -> SKIP to question 38
No -> SKIP to question 36

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes -> SKIP to question 37
No

36 During the LAST 4 WEEKS, has this person been ACTIVELY looking for work?

- Yes
No -> SKIP to question 38

37 LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
No, because of own temporary illness
No, because of all other reasons (in school, etc.)

38 When did this person last work, even for a few days?

- Within the past 12 months
1 to 5 years ago -> SKIP to L
Over 5 years ago or never worked -> SKIP to question 47

39 a. During the PAST 12 MONTHS (52 weeks), did this person work 50 or more weeks? Count paid time off as work.

- Yes -> SKIP to question 40
No

b. How many weeks DID this person work, even for a few hours, including paid vacation, paid sick leave, and military service?

- 50 to 52 weeks
48 to 49 weeks
40 to 47 weeks
27 to 39 weeks
14 to 26 weeks
13 weeks or less

40 During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did this person usually work each WEEK?

Usual hours worked each WEEK

Usual hours worked each WEEK input field



Person 1 (continued)

L Answer questions 41 – 46 if this person worked in the past 5 years. Otherwise, SKIP to question 47.

41 – 46 CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business.

41 Was this person – Mark (X) ONE box.

- an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?
- an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?
- a local GOVERNMENT employee (city, county, etc.)?
- a state GOVERNMENT employee?
- a Federal GOVERNMENT employee?
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?
- working WITHOUT PAY in family business or farm?

42 For whom did this person work?

If now on active duty in the Armed Forces, mark (X) this box →
and print the branch of the Armed Forces.

Name of company, business, or other employer

43 What kind of business or industry was this?

Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)

44 Is this mainly – Mark (X) ONE box.

- manufacturing?
- wholesale trade?
- retail trade?
- other (agriculture, construction, service, government, etc.)?

45 What kind of work was this person doing?

(For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)

46 What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records)

47 INCOME IN THE PAST 12 MONTHS

Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The "past 12 months" is the period from today's date one year ago up through today.)

Mark (X) the "No" box to show types of income NOT received.

If net income was a loss, mark the "Loss" box to the right of the dollar amount.

For income received jointly, report the appropriate share for each person – or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.

a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items.

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.

Yes → \$ _____ .00 Loss
 No
 TOTAL AMOUNT for past 12 months

c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.

Yes → \$ _____ .00 Loss
 No
 TOTAL AMOUNT for past 12 months

d. Social Security or Railroad Retirement.

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

e. Supplemental Security Income (SSI).

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

f. Any public assistance or welfare payments from the state or local welfare office.

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

g. Retirement, survivor, or disability pensions. Do NOT include Social Security.

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support or alimony. Do NOT include lump sum payments such as money from an inheritance or the sale of a home.

Yes → \$ _____ .00
 No
 TOTAL AMOUNT for past 12 months

48 What was this person's total income during the PAST 12 MONTHS? Add entries in questions 47a to 47h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

None OR \$ _____ .00 Loss
 TOTAL AMOUNT for past 12 months

→ Continue with the questions for Person 2 on the next page. If no one is listed as person 2 on page 2, SKIP to page 28 for mailing instructions.



Person 2

The balance of the questionnaire has questions for Person 2, Person 3, Person 4, and Person 5. The questions are the same as the questions for Person 1.

INFORMATIONAL COPY





Mailing Instructions

➤ **Please make sure you have...**

- listed all names and answered the questions on pages 2, 3, and 4
- answered all Housing questions
- answered all Person questions for each person.

➤ **Then...**

- put the completed questionnaire into the postage-paid return envelope. If the envelope has been misplaced, please mail the questionnaire to:
U.S. Census Bureau
P.O. Box 5240
Jeffersonville, IN 47199-5240
- make sure the barcode above your address shows in the window of the return envelope.

Thank you for participating in the American Community Survey.

INFORMATIONAL COPY

For Census Bureau Use

POP <input type="checkbox"/>	EDIT <input type="checkbox"/>	PHONE <input type="checkbox"/>	JIC1 <input type="checkbox"/>	JIC2 <input type="checkbox"/>
EDIT CLERK <input type="checkbox"/>	TELEPHONE CLERK <input type="checkbox"/>		JIC3 <input type="checkbox"/>	JIC4 <input type="checkbox"/>

The Census Bureau estimates that, for the average household, this form will take 38 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Paperwork Project 0607-0810, U.S. Census Bureau, 4600 Silver Hill Road, AMSD - 3K138, Washington, D.C. 20233. You may e-mail comments to Paperwork@census.gov; use "Paperwork Project 0607-0810" as the subject. Please DO NOT RETURN your questionnaire to this address. Use the enclosed preaddressed envelope to return your completed questionnaire.

Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget. This 8-digit number appears in the bottom right on the front cover of this form.

Form ACS-1(INFO)(2012)KFI (07-14-2011)



APPENDIX C: AMERICAN COMMUNITY SURVEY SUMMARY OF CHANGES

The American Community Survey (ACS) Mail Questionnaire
from 2005 to 2009

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>Start Here</p> <p>This form asks for three types of information:</p> <ul style="list-style-type: none"> • basic information about the people who are living or staying at the address on the mailing label above • home or mobile information about this house, apartment, or mobile home • more detailed information about each person living or staying here <p>What is your name? Please PRINT the name of the person who is filling out this form. We may contact you if there is a question, so we can contact you if there is a question, and today's date.</p> <p>Last Name _____</p> <p>First Name _____ MI _____</p> <p>Area Code + Number _____</p> <p>Date (Month/Day/Year) _____</p> <p>How many people are living or staying at this address?</p> <p>Number of people _____</p> <p>Please turn to the next page to continue.</p>	<p>Start Here</p> <p>Please fill out this form as soon as possible after receiving this form.</p> <p>This form asks for three types of information:</p> <ul style="list-style-type: none"> • basic information about the people who are living or staying at the address on the mailing label above • home or mobile information about this house, apartment, or mobile home • more detailed information about each person living or staying here <p>What is your name? Please PRINT the name of the person who is filling out this form. We may contact you if there is a question, so we can contact you if there is a question, and today's date.</p> <p>Last Name _____</p> <p>First Name _____ MI _____</p> <p>Area Code + Number _____</p> <p>Today's Date (Month/Day/Year) _____</p> <p>How many people are living or staying at this address?</p> <p>Number of people _____</p> <p>Please turn to the next page to continue.</p>	<p>Start Here</p> <p>Please print today's date.</p> <p>Month _____ Day _____ Year _____</p> <p>Please print the name and telephone number of the person who is filling out this form. We may contact you if there is a question.</p> <p>Last Name _____</p> <p>First Name _____ MI _____</p> <p>Area Code + Number _____</p> <p>How many people are living or staying at this address?</p> <ul style="list-style-type: none"> • INCLUDE everyone who is living or staying here for more than 2 months. • INCLUDE yourself if you are living here for more than 2 months. • INCLUDE everyone who is living or staying here for more than 2 months, even if they are here for 2 months or less. • DO NOT INCLUDE anyone who is living here for less than 2 months, unless they are a college student, living away from home, or someone in the Armed Forces on deployment. <p>Number of people _____</p> <p>Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then compare the results of the forms.</p>	<p>Start Here</p> <p>Please print today's date.</p> <p>Month _____ Day _____ Year _____</p> <p>Please print the name and telephone number of the person who is filling out this form. We may contact you if there is a question.</p> <p>Last Name _____</p> <p>First Name _____ MI _____</p> <p>Area Code + Number _____</p> <p>How many people are living or staying at this address?</p> <ul style="list-style-type: none"> • INCLUDE everyone who is living or staying here for more than 2 months. • INCLUDE yourself if you are living here for more than 2 months. • INCLUDE everyone who is living or staying here for more than 2 months, even if they are here for 2 months or less. • DO NOT INCLUDE anyone who is living here for less than 2 months, unless they are a college student, living away from home, or someone in the Armed Forces on deployment. <p>Number of people _____</p> <p>Fill out pages 2, 3, and 4 for everyone, including yourself, who is living or staying at this address for more than 2 months. Then compare the results of the forms.</p>	<p>Unchanged</p> <p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes From 2008 to 2009
<p>List of Residents</p> <p>READ THESE INSTRUCTIONS FIRST!</p> <p>Person 11 and this form receiving it in the mail.</p> <ul style="list-style-type: none"> • LIST person who is for more than 2 months. • LIST applicant or listing agency, new school place, or • DO NOT LIST anyone who for more than 2 months, being away. <p>If this letter is a validation form or a vacation form, you do not need to do anything. If you are not sure, please call the number on the form. Complete and return this form.</p> <p>IF YOU ARE NOT SURE WHO TO LIST, CALL 1-800-354-7271.</p> <p>Person 1 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 2 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 3 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 4 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 5 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 6 Last Name (Please print) _____ First Name _____ MI _____</p> <p>1 If there are more than 6 people, please print the names of all 6 people on the list.</p> <p>2 After you've created your account, answer the questions on the form for the people on the list.</p>	<p>List of Residents</p> <p>READ THESE INSTRUCTIONS</p> <p>This survey collects the names of all people who are living in your house for more than 2 months.</p> <p>On the List of Residents:</p> <ul style="list-style-type: none"> • Person 1 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. • Person 2 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. • Person 3 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. • Person 4 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. • Person 5 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. • Person 6 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here. <p>If you are not sure who to list, please call 1-800-354-7271.</p> <p>Person 1 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 2 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 3 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 4 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 5 Last Name (Please print) _____ First Name _____ MI _____</p> <p>Person 6 Last Name (Please print) _____ First Name _____ MI _____</p> <p>1 After you complete the survey, please answer the questions on the form for the people on the list.</p>	<p>Person 1</p> <p>(Person 1 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here.)</p> <p>Last Name (Please print) _____ First Name _____ MI _____</p> <p>2 If there are more than five people living or staying here, print their names in the spaces for Person 6 through Person 12.</p> <p>Person 6 Last Name (Please print) _____ First Name _____ MI _____ Sex <input type="checkbox"/> Male <input type="checkbox"/> Female Age (in years) _____</p>	<p>Person 1</p> <p>(Person 1 is the person living or staying here in whose name this house or apartment is owned. Being bought, or rented. If there is no such person, start with the name of any adult living or staying here.)</p> <p>Last Name (Please print) _____ First Name _____ MI _____</p> <p>2 If there are more than five people living or staying here, print their names in the spaces for Person 6 through Person 12.</p> <p>Person 6 Last Name (Please print) _____ First Name _____ MI _____ Sex <input type="checkbox"/> Male <input type="checkbox"/> Female Age (in years) _____</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>1 What is this person's sex?</p> <p>Person 1 Last Name (please print) _____ First Name _____ MI <input type="checkbox"/></p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>Person 2 Last Name (please print) _____ First Name _____ MI <input type="checkbox"/></p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>1 What is this person's sex?</p> <p>Person 1 Last Name (please print) _____ First Name _____ MI <input type="checkbox"/></p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p> <p>Person 2 Last Name (please print) _____ First Name _____ MI <input type="checkbox"/></p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>3 What is Person 1's sex? Mark <input type="checkbox"/> ONE box.</p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>3 What is Person 1's sex? Mark <input type="checkbox"/> ONE box.</p> <p><input type="checkbox"/> Male <input type="checkbox"/> Female</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>2 What is this person's age and what is this person's date of birth? <i>Print numbers in boxes.</i></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>2 What is this person's age and what is this person's date of birth? <i>Print numbers in boxes.</i></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>4 What is Person 1's age and what is Person 1's date of birth? <i>Print numbers in boxes.</i></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>4 What is Person 1's age and what is Person 1's date of birth? <i>Print numbers in boxes.</i></p> <p>Age (in years) <input type="text"/> <input type="text"/> <input type="text"/></p> <p>Month Day Year of birth <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>3 How is this person related to Person 1?</p> <p><input checked="" type="checkbox"/> Person 1 <i>(Person 1 is the person living or staying here in whose name this house or apartment is owned, being bought, or rented. If there is no such person, start with the name of any adult living or staying here.)</i></p> <p>Relationship of Person 2 to Person 1:</p> <p> <input type="checkbox"/> Husband or wife <input type="checkbox"/> Roomer, boarder <input type="checkbox"/> Son or daughter <input type="checkbox"/> Housemate, roommate <input type="checkbox"/> Brother or sister <input type="checkbox"/> Unmarried partner <input type="checkbox"/> Father or mother <input type="checkbox"/> Foster child <input type="checkbox"/> Grandchild <input type="checkbox"/> Other nonrelative <input type="checkbox"/> In-law <input type="checkbox"/> Other relative </p>	<p>3 How is this person related to Person 1?</p> <p><input checked="" type="checkbox"/> Person 1 <i>(Person 1 is the person living or staying here in whose name this house or apartment is owned, being bought, or rented. If there is no such person, start with the name of any adult living or staying here.)</i></p> <p>Relationship of Person 2 to Person 1:</p> <p> <input type="checkbox"/> Husband or wife <input type="checkbox"/> Roomer, boarder <input type="checkbox"/> Son or daughter <input type="checkbox"/> Housemate, roommate <input type="checkbox"/> Brother or sister <input type="checkbox"/> Unmarried partner <input type="checkbox"/> Father or mother <input type="checkbox"/> Foster child <input type="checkbox"/> Grandchild <input type="checkbox"/> Other nonrelative <input type="checkbox"/> In-law <input type="checkbox"/> Other relative </p>	<p>2 How is this person related to Person 1?</p> <p><input checked="" type="checkbox"/> Person 1</p> <p>3 How is this person related to Person 1? Mark (X) ONE box.</p> <p> <input type="checkbox"/> Husband or wife <input type="checkbox"/> Son-in-law <input type="checkbox"/> Mother-in-law <input type="checkbox"/> Daughter-in-law <input type="checkbox"/> Sister or brother <input type="checkbox"/> Other relative <input type="checkbox"/> Stepfather or stepmother <input type="checkbox"/> Other relative <input type="checkbox"/> Stepson or stepdaughter <input type="checkbox"/> Other relative <input type="checkbox"/> Father or mother <input type="checkbox"/> Grandchild <input type="checkbox"/> Grandchild <input type="checkbox"/> Other nonrelative <input type="checkbox"/> In-law </p>	<p>2 How is this person related to Person 1?</p> <p><input checked="" type="checkbox"/> Person 1</p> <p>3 How is this person related to Person 1? Mark (X) ONE box.</p> <p> <input type="checkbox"/> Husband or wife <input type="checkbox"/> Son-in-law or daughter-in-law <input type="checkbox"/> Mother-in-law <input type="checkbox"/> Daughter-in-law <input type="checkbox"/> Sister or brother <input type="checkbox"/> Other relative <input type="checkbox"/> Stepfather or stepmother <input type="checkbox"/> Other relative <input type="checkbox"/> Stepson or stepdaughter <input type="checkbox"/> Other relative <input type="checkbox"/> Father or mother <input type="checkbox"/> Grandchild <input type="checkbox"/> Grandchild <input type="checkbox"/> Other nonrelative <input type="checkbox"/> In-law </p>	<p>Description of Changes from 2008 to 2009</p> <p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>4 What is this person's marital status?</p> <p><input type="checkbox"/> Now married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Never married</p>	<p>4 What is this person's marital status?</p> <p><input type="checkbox"/> Now married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Never married</p>	<p>19 What is this person's marital status?</p> <p><input type="checkbox"/> Now married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Never married → SKP to H</p>	<p>20 What is this person's marital status?</p> <p><input type="checkbox"/> Now married <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/> Never married → SKP to 1</p>	<p>✓ The question number changed from 19 to 20. ✓ Skip for Never married response is different letter but skip is to the same instruction.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>NOTE: Please answer BOTH Questions 5 and 6.</p> <p>5 Is this person Spanish/Hispanic/Latino? Mark <i>all</i> the "Yes" box if not Spanish/Hispanic/Latino.</p> <p><input type="checkbox"/> No, not Spanish/Hispanic/Latino</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, other Spanish/Hispanic/Latino — <i>Print group.</i> Z</p>	<p>NOTE: Please answer BOTH Questions 5 and 6.</p> <p>5 Is this person Spanish/Hispanic/Latino? Mark <i>all</i> the "Yes" box if not Spanish/Hispanic/Latino.</p> <p><input type="checkbox"/> No, not Spanish/Hispanic/Latino</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, Cuban</p> <p><input type="checkbox"/> Yes, other Spanish/Hispanic/Latino — <i>Print group.</i> Z</p>	<p>NOTE: Please answer BOTH questions 5 about Hispanic origin and 6 about Hispanic origin and Puerto Rican origin. In Present 1 of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin</p> <p><input type="checkbox"/> Yes, Cuban</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, other Hispanic, Latino, or Spanish origin — <i>Print origin for average of respondents.</i> Z</p>	<p>NOTE: Please answer BOTH Question 5 about Hispanic origin and 6 about Hispanic origin and Puerto Rican origin. In Present 1 of Hispanic, Latino, or Spanish origin?</p> <p><input type="checkbox"/> No, not of Hispanic, Latino, or Spanish origin</p> <p><input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano</p> <p><input type="checkbox"/> Yes, Puerto Rican</p> <p><input type="checkbox"/> Yes, Cuban</p> <p><input type="checkbox"/> Yes, other Hispanic, Latino, or Spanish origin — <i>Print origin for average of respondents.</i> Z</p>	<p>Description of Changes from 2008 to 2009</p> <p>Unchanged</p>

2005 and 2006 Content		2007 Content	
<p>6 What is this person's race? Mark OX one or more races to indicate what this person considers himself/herself to be.</p> <p><input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe</i> Z <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian – <i>Print race</i> →</p> <p><input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander – <i>Print race below</i> Z <input type="checkbox"/> Some other race – <i>Print race below</i> Z</p>	<p><input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe</i> Z <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian – <i>Print race</i> →</p> <p><input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander – <i>Print race below</i> Z <input type="checkbox"/> Some other race – <i>Print race below</i> Z</p>	<p>9 What is this person's race? Mark XI one or more races to indicate what this person considers himself/herself to be.</p> <p><input type="checkbox"/> White <input type="checkbox"/> Black or African American <input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe</i> Z <input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Asian – <i>Print race</i> →</p> <p><input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander – <i>Print race below</i> Z <input type="checkbox"/> Some other race – <i>Print race below</i> Z</p>	<p>Description of Changes From 2008 to 2009</p>
2008 Content		2009 Content	
<p>6 What is Person 1's race? Mark XI one or more boxes.</p> <p><input type="checkbox"/> White <input type="checkbox"/> Black, African Am., or Negro <input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe</i> Z</p> <p><input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Other Asian – <i>Print race for example, Hmong, Laotian, Cambodian, and so on.</i> Z</p> <p><input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Pacific Islander – <i>Print race for example, Tongan, and so on.</i> Z</p> <p><input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander – <i>Print race for example, Tongan, and so on.</i> Z</p> <p><input type="checkbox"/> Some other race – <i>Print race.</i> Z</p>	<p>6 What is Person 1's race? Mark XI one or more boxes.</p> <p><input type="checkbox"/> White <input type="checkbox"/> Black, African Am., or Negro <input type="checkbox"/> American Indian or Alaska Native – <i>Print name of enrolled or principal tribe</i> Z</p> <p><input type="checkbox"/> Asian Indian <input type="checkbox"/> Chinese <input type="checkbox"/> Filipino <input type="checkbox"/> Other Asian – <i>Print race for example, Hmong, Laotian, Cambodian, and so on.</i> Z</p> <p><input type="checkbox"/> Japanese <input type="checkbox"/> Korean <input type="checkbox"/> Vietnamese <input type="checkbox"/> Other Pacific Islander – <i>Print race for example, Tongan, and so on.</i> Z</p> <p><input type="checkbox"/> Native Hawaiian <input type="checkbox"/> Guamanian or Chamorro <input type="checkbox"/> Samoan <input type="checkbox"/> Other Pacific Islander – <i>Print race for example, Tongan, and so on.</i> Z</p> <p><input type="checkbox"/> Some other race – <i>Print race.</i> Z</p>	<p>Description of Changes From 2008 to 2009</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>Person 10 Person 11 Person 12</p> <p>When you are finished, turn the page and continue with the Housing section.</p> <p>Housing</p> <p>Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.</p> <p>1 Which best describes this building? <i>Include all apartments, flats, etc., even if vacant.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> A mobile home <input type="checkbox"/> A one-family house detached from any other house <input type="checkbox"/> A one-family house attached to one or more houses <input type="checkbox"/> A building with 2 apartments <input type="checkbox"/> A building with 3 or 4 apartments <input type="checkbox"/> A building with 5 to 9 apartments <input type="checkbox"/> A building with 10 to 19 apartments <input type="checkbox"/> A building with 20 to 49 apartments <input type="checkbox"/> A building with 50 or more apartments <input type="checkbox"/> Boat, RV, van, etc. 	<p>Person 11 Person 12</p> <p>When you are finished, turn the page and continue with the Housing section.</p> <p>Housing</p> <p>Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.</p> <p>1 Which best describes this building? <i>Include all apartments, flats, etc., even if vacant.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> A mobile home <input type="checkbox"/> A one-family house detached from any other house <input type="checkbox"/> A one-family house attached to one or more houses <input type="checkbox"/> A building with 2 apartments <input type="checkbox"/> A building with 3 or 4 apartments <input type="checkbox"/> A building with 5 to 9 apartments <input type="checkbox"/> A building with 10 to 19 apartments <input type="checkbox"/> A building with 20 to 49 apartments <input type="checkbox"/> A building with 50 or more apartments <input type="checkbox"/> Boat, RV, van, etc. 	<p>No instruction</p> <p>Housing</p> <p>Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.</p> <p>1 Which best describes this building? <i>Include all apartments, flats, etc., even if vacant.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> A mobile home <input type="checkbox"/> A one-family house detached from any other house <input type="checkbox"/> A one-family house attached to one or more houses <input type="checkbox"/> A building with 2 apartments <input type="checkbox"/> A building with 3 or 4 apartments <input type="checkbox"/> A building with 5 to 9 apartments <input type="checkbox"/> A building with 10 to 19 apartments <input type="checkbox"/> A building with 20 to 49 apartments <input type="checkbox"/> A building with 50 or more apartments <input type="checkbox"/> Boat, RV, van, etc. 	<p>No instruction</p> <p>Housing</p> <p>Please answer the following questions about the house, apartment, or mobile home at the address on the mailing label.</p> <p>1 Which best describes this building? <i>Include all apartments, flats, etc., even if vacant.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> A mobile home <input type="checkbox"/> A one-family house detached from any other house <input type="checkbox"/> A one-family house attached to one or more houses <input type="checkbox"/> A building with 2 apartments <input type="checkbox"/> A building with 3 or 4 apartments <input type="checkbox"/> A building with 5 to 9 apartments <input type="checkbox"/> A building with 10 to 19 apartments <input type="checkbox"/> A building with 20 to 49 apartments <input type="checkbox"/> A building with 50 or more apartments <input type="checkbox"/> Boat, RV, van, etc. 	<p>Unchanged</p>

2005 and 2006 Content		2007 Content		2008 Content		2009 Content		Description of Changes from 2008 to 2009
<p>2 About when was this building first built?</p> <input type="checkbox"/> 2005 or later <input type="checkbox"/> 2000 to 2004 <input type="checkbox"/> 1990 to 1999 <input type="checkbox"/> 1980 to 1989 <input type="checkbox"/> 1970 to 1979 <input type="checkbox"/> 1960 to 1969 <input type="checkbox"/> 1950 to 1959 <input type="checkbox"/> 1940 to 1949 <input type="checkbox"/> 1939 or earlier	<p>2 About when was this building first built?</p> <input type="checkbox"/> 2005 or later <input type="checkbox"/> 2000 to 2004 <input type="checkbox"/> 1990 to 1999 <input type="checkbox"/> 1980 to 1989 <input type="checkbox"/> 1970 to 1979 <input type="checkbox"/> 1960 to 1969 <input type="checkbox"/> 1950 to 1959 <input type="checkbox"/> 1940 to 1949 <input type="checkbox"/> 1939 or earlier	<p>2 About when was this building first built?</p> <input type="checkbox"/> 2000 or later - Specify year <input type="checkbox"/> 1990 to 1999 <input type="checkbox"/> 1980 to 1989 <input type="checkbox"/> 1970 to 1979 <input type="checkbox"/> 1960 to 1969 <input type="checkbox"/> 1950 to 1959 <input type="checkbox"/> 1940 to 1949 <input type="checkbox"/> 1939 or earlier	<p>2 About when was this building first built?</p> <input type="checkbox"/> 2000 or later - Specify year <input type="checkbox"/> 1990 to 1999 <input type="checkbox"/> 1980 to 1989 <input type="checkbox"/> 1970 to 1979 <input type="checkbox"/> 1960 to 1969 <input type="checkbox"/> 1950 to 1959 <input type="checkbox"/> 1940 to 1949 <input type="checkbox"/> 1939 or earlier	<p>3 When did PERSON 1 (listed in the List of Residents on page 2) move into this house, apartment, or mobile home?</p> <p>Month Year</p>	<p>3 When did PERSON 1 (listed in the List of Residents on page 2) move into this house, apartment, or mobile home?</p> <p>Month Year</p>	<p>3 When did PERSON 1 (listed in the List of Residents on page 2) move into this house, apartment, or mobile home?</p> <p>Month Year</p>	<p>3 When did PERSON 1 (listed in the List of Residents on page 2) move into this house, apartment, or mobile home?</p> <p>Month Year</p>	

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>A Answer questions 4-6 ONLY if this is a one-family house or a mobile home; otherwise, SKIP to question 7.</p> <p>4 How many acres is this house or mobile home on? <input type="checkbox"/> Less than 1 acre → SKIP to question 6 <input type="checkbox"/> 1 to 9.9 acres <input type="checkbox"/> 10 or more acres</p> <p>5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property? <input type="checkbox"/> None <input type="checkbox"/> \$1 to \$999 <input type="checkbox"/> \$1,000 to \$2,499 <input type="checkbox"/> \$2,500 to \$4,999 <input type="checkbox"/> \$5,000 to \$9,999 <input type="checkbox"/> \$10,000 or more</p> <p>6 Is there a business (such as a store or barber shop) or a medical office on this property? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>A Answer questions 4-6 ONLY if this is a one-family house or a mobile home; otherwise, SKIP to question 7.</p> <p>4 How many acres is this house or mobile home on? <input type="checkbox"/> Less than 1 acre → SKIP to question 6 <input type="checkbox"/> 1 to 9.9 acres <input type="checkbox"/> 10 or more acres</p> <p>5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property? <input type="checkbox"/> None <input type="checkbox"/> \$1 to \$999 <input type="checkbox"/> \$1,000 to \$2,499 <input type="checkbox"/> \$2,500 to \$4,999 <input type="checkbox"/> \$5,000 to \$9,999 <input type="checkbox"/> \$10,000 or more</p> <p>6 Is there a business (such as a store or barber shop) or a medical office on this property? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>A Answer questions 4 - 6 if this is a HOUSE OR A MOBILE HOME; otherwise, SKIP to question 7a.</p> <p>4 How many acres is this house or mobile home on? <input type="checkbox"/> Less than 1 acre → SKIP to question 6 <input type="checkbox"/> 1 to 9.9 acres <input type="checkbox"/> 10 or more acres</p> <p>5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property? <input type="checkbox"/> None <input type="checkbox"/> \$1 to \$999 <input type="checkbox"/> \$1,000 to \$2,499 <input type="checkbox"/> \$2,500 to \$4,999 <input type="checkbox"/> \$5,000 to \$9,999 <input type="checkbox"/> \$10,000 or more</p> <p>6 Is there a business (such as a store or barber shop) or a medical office on this property? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>A Answer questions 4 - 6 if this is a HOUSE OR A MOBILE HOME; otherwise, SKIP to question 7a.</p> <p>4 How many acres is this house or mobile home on? <input type="checkbox"/> Less than 1 acre → SKIP to question 6 <input type="checkbox"/> 1 to 9.9 acres <input type="checkbox"/> 10 or more acres</p> <p>5 IN THE PAST 12 MONTHS, what were the actual sales of all agricultural products from this property? <input type="checkbox"/> None <input type="checkbox"/> \$1 to \$999 <input type="checkbox"/> \$1,000 to \$2,499 <input type="checkbox"/> \$2,500 to \$4,999 <input type="checkbox"/> \$5,000 to \$9,999 <input type="checkbox"/> \$10,000 or more</p> <p>6 Is there a business (such as a store or barber shop) or a medical office on this property? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>7 How many rooms are in this house, apartment, or mobile home? Do NOT count bathrooms, porches, balconies, foyers, halls, or half-rooms.</p> <p><input type="checkbox"/> 1 room <input type="checkbox"/> 2 rooms <input type="checkbox"/> 3 rooms <input type="checkbox"/> 4 rooms <input type="checkbox"/> 5 rooms <input type="checkbox"/> 6 rooms <input type="checkbox"/> 7 rooms <input type="checkbox"/> 8 rooms <input type="checkbox"/> 9 or more rooms</p>	<p>7 How many rooms are in this house, apartment, or mobile home? Do NOT count bathrooms, porches, balconies, foyers, halls, or half-rooms.</p> <p><input type="checkbox"/> 1 room <input type="checkbox"/> 2 rooms <input type="checkbox"/> 3 rooms <input type="checkbox"/> 4 rooms <input type="checkbox"/> 5 rooms <input type="checkbox"/> 6 rooms <input type="checkbox"/> 7 rooms <input type="checkbox"/> 8 rooms <input type="checkbox"/> 9 or more rooms</p>	<p>7 How many separate rooms are in this house, apartment, or mobile home? Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.</p> <ul style="list-style-type: none"> • INCLUDE bedrooms, kitchens, etc. • EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements. <p>Number of rooms <input type="text"/></p>	<p>7 How many separate rooms are in this house, apartment, or mobile home? Rooms must be separated by built-in archways or walls that extend out at least 6 inches and go from floor to ceiling.</p> <ul style="list-style-type: none"> • INCLUDE bedrooms, kitchens, etc. • EXCLUDE bathrooms, porches, balconies, foyers, halls, or unfinished basements. <p>Number of rooms <input type="text"/></p>	Unchanged
<p>8 How many bedrooms are in this house, apartment, or mobile home; that is, how many bedrooms would you list if this house, apartment, or mobile home were on the market for sale or rent?</p> <p><input type="checkbox"/> No bedroom <input type="checkbox"/> 1 bedroom <input type="checkbox"/> 2 bedrooms <input type="checkbox"/> 3 bedrooms <input type="checkbox"/> 4 bedrooms <input type="checkbox"/> 5 or more bedrooms</p>	<p>8 How many bedrooms are in this house, apartment, or mobile home; that is, how many bedrooms would you list if this house, apartment, or mobile home were on the market for sale or rent?</p> <p><input type="checkbox"/> No bedroom <input type="checkbox"/> 1 bedroom <input type="checkbox"/> 2 bedrooms <input type="checkbox"/> 3 bedrooms <input type="checkbox"/> 4 bedrooms <input type="checkbox"/> 5 or more bedrooms</p>	<p>b. How many of these rooms are bedrooms? <i>Court as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".</i></p> <p>Number of bedrooms <input type="text"/></p>	<p>b. How many of these rooms are bedrooms? <i>Court as bedrooms those rooms you would list if this house, apartment, or mobile home were for sale or rent. If this is an efficiency/studio apartment, print "0".</i></p> <p>Number of bedrooms <input type="text"/></p>	Unchanged
<p>9 Does this house, apartment, or mobile home have COMPLETE plumbing facilities: that is, 1) hot and cold piped water, 2) a flush toilet, and 3) a bathtub or shower?</p> <p><input type="checkbox"/> Yes, has all three facilities <input type="checkbox"/> No</p>	<p>9 Does this house, apartment, or mobile home have COMPLETE plumbing facilities: that is, 1) hot and cold piped water, 2) a flush toilet, and 3) a bathtub or shower?</p> <p><input type="checkbox"/> Yes, has all three facilities <input type="checkbox"/> No</p>	<p>9 Does this house, apartment, or mobile home have –</p> <p><input type="checkbox"/> a. hot and cold running water? <input type="checkbox"/> b. a flush toilet? <input type="checkbox"/> c. a bathtub or shower? <input type="checkbox"/> d. a sink with a faucet? <input type="checkbox"/> e. a stove or range? <input type="checkbox"/> f. a refrigerator? <input type="checkbox"/> g. telephone service from a central exchange or a pay phone and receive calls? <i>Include cell phones.</i></p>	<p>9 Does this house, apartment, or mobile home have –</p> <p><input type="checkbox"/> a. hot and cold running water? <input type="checkbox"/> b. a flush toilet? <input type="checkbox"/> c. a bathtub or shower? <input type="checkbox"/> d. a sink with a faucet? <input type="checkbox"/> e. a stove or range? <input type="checkbox"/> f. a refrigerator? <input type="checkbox"/> g. telephone service from a central exchange or a pay phone and receive calls? <i>Include cell phones.</i></p>	Unchanged

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>10 Does this house, apartment, or mobile home have COMPLETE kitchen facilities, including a sink with a faucet, a stove or range, and 3) a refrigerator?</p> <p><input type="checkbox"/> Yes, has all three facilities <input type="checkbox"/> No</p>	<p>10 Does this house, apartment, or mobile home have COMPLETE kitchen facilities, including: 1) a sink with a faucet, 2) a stove or range, and 3) a refrigerator?</p> <p><input type="checkbox"/> Yes, has all three facilities <input type="checkbox"/> No</p>	<p>8 Does this house, apartment, or mobile home have--</p> <p>a. hot and cold running water? <input type="checkbox"/> Yes <input type="checkbox"/> No b. a flush toilet? <input type="checkbox"/> Yes <input type="checkbox"/> No c. a bathtub or shower? <input type="checkbox"/> Yes <input type="checkbox"/> No d. a sink with a faucet? <input type="checkbox"/> Yes <input type="checkbox"/> No e. a stove or range? <input type="checkbox"/> Yes <input type="checkbox"/> No f. a refrigerator? <input type="checkbox"/> Yes <input type="checkbox"/> No g. telephone service from which you can both make and receive calls? <i>include cell phones.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>8 Does this house, apartment, or mobile home have--</p> <p>a. hot and cold running water? <input type="checkbox"/> Yes <input type="checkbox"/> No b. a flush toilet? <input type="checkbox"/> Yes <input type="checkbox"/> No c. a bathtub or shower? <input type="checkbox"/> Yes <input type="checkbox"/> No d. a sink with a faucet? <input type="checkbox"/> Yes <input type="checkbox"/> No e. a stove or range? <input type="checkbox"/> Yes <input type="checkbox"/> No f. a refrigerator? <input type="checkbox"/> Yes <input type="checkbox"/> No g. telephone service from which you can both make and receive calls? <i>include cell phones.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	Unchanged
<p>11 Is there telephone service available in this house, apartment, or mobile home from which you can both make and receive calls?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>11 Is there telephone service available in this house, apartment, or mobile home from which you can both make and receive calls?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>8 Does this house, apartment, or mobile home have--</p> <p>a. hot and cold running water? <input type="checkbox"/> Yes <input type="checkbox"/> No b. a flush toilet? <input type="checkbox"/> Yes <input type="checkbox"/> No c. a bathtub or shower? <input type="checkbox"/> Yes <input type="checkbox"/> No d. a sink with a faucet? <input type="checkbox"/> Yes <input type="checkbox"/> No e. a stove or range? <input type="checkbox"/> Yes <input type="checkbox"/> No f. a refrigerator? <input type="checkbox"/> Yes <input type="checkbox"/> No g. telephone service from which you can both make and receive calls? <i>include cell phones.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>8 Does this house, apartment, or mobile home have--</p> <p>a. hot and cold running water? <input type="checkbox"/> Yes <input type="checkbox"/> No b. a flush toilet? <input type="checkbox"/> Yes <input type="checkbox"/> No c. a bathtub or shower? <input type="checkbox"/> Yes <input type="checkbox"/> No d. a sink with a faucet? <input type="checkbox"/> Yes <input type="checkbox"/> No e. a stove or range? <input type="checkbox"/> Yes <input type="checkbox"/> No f. a refrigerator? <input type="checkbox"/> Yes <input type="checkbox"/> No g. telephone service from which you can both make and receive calls? <i>include cell phones.</i> <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	Unchanged
<p>12 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?</p> <p><input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 or more</p>	<p>12 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home by members of this household?</p> <p><input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 or more</p>	<p>9 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home by members of this household?</p> <p><input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 or more</p>	<p>9 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of this household?</p> <p><input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 or more</p>	Unchanged

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>13 Which FUEL is used MOST for heating this house, apartment, or mobile home?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gas, from underground pipes serving the house, apartment, or mobile home? <input type="checkbox"/> Gas, bottled, tank, or LP <input type="checkbox"/> Electricity <input type="checkbox"/> Fuel oil, kerosene, etc. <input type="checkbox"/> Coal or coke <input type="checkbox"/> Wood <input type="checkbox"/> Solar energy <input type="checkbox"/> Other fuel <input type="checkbox"/> No fuel used 	<p>13 Which FUEL is used MOST for heating this house, apartment, or mobile home?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gas, from underground pipes serving the neighborhood <input type="checkbox"/> Gas, bottled, tank, or LP <input type="checkbox"/> Electricity <input type="checkbox"/> Fuel oil, kerosene, etc. <input type="checkbox"/> Coal or coke <input type="checkbox"/> Wood <input type="checkbox"/> Solar energy <input type="checkbox"/> Other fuel <input type="checkbox"/> No fuel used 	<p>10 Which FUEL is used MOST for heating this house, apartment, or mobile home?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gas, from underground pipes serving the neighborhood <input type="checkbox"/> Gas, bottled, tank, or LP <input type="checkbox"/> Electricity <input type="checkbox"/> Fuel oil, kerosene, etc. <input type="checkbox"/> Coal or coke <input type="checkbox"/> Wood <input type="checkbox"/> Solar energy <input type="checkbox"/> Other fuel <input type="checkbox"/> No fuel used 	<p>10 Which FUEL is used MOST for heating this house, apartment, or mobile home?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Gas, from underground pipes serving the neighborhood <input type="checkbox"/> Gas, bottled, tank, or LP <input type="checkbox"/> Electricity <input type="checkbox"/> Fuel oil, kerosene, etc. <input type="checkbox"/> Coal or coke <input type="checkbox"/> Wood <input type="checkbox"/> Solar energy <input type="checkbox"/> Other fuel <input type="checkbox"/> No fuel used 	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>14 a. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or electricity not used</p> <p>b. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> Included in electricity payment entered above <input type="checkbox"/> No charge or gas not used</p> <p>c. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge</p>	<p>14 a. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or electricity not used</p> <p>b. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> Included in electricity payment entered above <input type="checkbox"/> No charge or gas not used</p> <p>c. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge</p>	<p>11 a. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or electricity not used</p> <p>b. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> Included in electricity payment entered above <input type="checkbox"/> No charge or gas not used</p> <p>c. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge</p>	<p>11 a. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or electricity not used</p> <p>b. LAST MONTH, what was the cost of gas for this house, apartment, or mobile home? Last month's cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> Included in electricity payment entered above <input type="checkbox"/> No charge or gas not used</p> <p>c. IN THE PAST 12 MONTHS, what was the cost of water and sewer for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars</p> <p>\$ <u> .00 </u></p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>d. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or these fuels not used</p>	<p>d. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or these fuels not used</p>	<p>d. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or these fuels not used</p>	<p>d. IN THE PAST 12 MONTHS, what was the cost of oil, coal, kerosene, wood, etc., for this house, apartment, or mobile home? If you have lived here less than 12 months, estimate the cost. Past 12 months' cost - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> Included in rent or condominium fee <input type="checkbox"/> No charge or these fuels not used</p>	<p>Unchanged</p>
<p>15 At any time DURING THE PAST 12 MONTHS, did anyone in this household receive Food Stamps? <input type="checkbox"/> Yes → What was the value of the Food Stamps received during the past 12 months? Past 12 months' value - Dollars \$ <input type="text" value="000"/> .00</p> <p><input type="checkbox"/> No</p>	<p>15 At any time DURING THE PAST 12 MONTHS, did anyone in this household receive Food Stamps? <input type="checkbox"/> Yes → What was the value of the Food Stamps received during the past 12 months? Past 12 months' value - Dollars \$ <input type="text" value="000"/> .00</p> <p><input type="checkbox"/> No</p>	<p>12 IN THE PAST 12 MONTHS, did anyone in this household receive Food Stamps or a Food Stamp benefit card? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>12 IN THE PAST 12 MONTHS, did anyone in this household receive Food Stamps or a Food Stamp benefit card? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Unchanged</p>
<p>16 Is this house, apartment, or mobile home part of a condominium? <input type="checkbox"/> Yes → What is the monthly condominium fee? For renters, answer only if you pay the condominium fee in addition to your rent; otherwise, mark the "None" box. Monthly amount - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> None <input type="checkbox"/> No</p>	<p>16 Is this house, apartment, or mobile home part of a condominium? <input type="checkbox"/> Yes → What is the monthly condominium fee? For renters, answer only if you pay the condominium fee in addition to your rent; otherwise, mark the "None" box. Monthly amount - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> None <input type="checkbox"/> No</p>	<p>13 Is this house, apartment, or mobile home part of a condominium? <input type="checkbox"/> Yes → What is the monthly condominium fee? For renters, answer only if you pay the condominium fee in addition to your rent; otherwise, mark the "None" box. Monthly amount - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> None <input type="checkbox"/> No</p>	<p>13 Is this house, apartment, or mobile home part of a condominium? <input type="checkbox"/> Yes → What is the monthly condominium fee? For renters, answer only if you pay the condominium fee in addition to your rent; otherwise, mark the "None" box. Monthly amount - Dollars \$ <input type="text" value="000"/> .00</p> <p>OR</p> <p><input type="checkbox"/> None <input type="checkbox"/> No</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>17 Is this house, apartment, or mobile home –</p> <p><input type="checkbox"/> Owned by you or someone in this household with a mortgage or loan?</p> <p><input type="checkbox"/> Owned by you or someone in this household free and clear (without a mortgage or loan)?</p> <p><input type="checkbox"/> Rented for cash rent?</p> <p><input type="checkbox"/> Occupied without payment of cash rent? → SKIP to C</p>	<p>17 Is this house, apartment, or mobile home –</p> <p><input type="checkbox"/> Owned by you or someone in this household with a mortgage or loan?</p> <p><input type="checkbox"/> Owned by you or someone in this household free and clear (without a mortgage or loan)?</p> <p><input type="checkbox"/> Rented for cash rent?</p> <p><input type="checkbox"/> Occupied without payment of cash rent? → SKIP to C</p>	<p>18 Is this house, apartment, or mobile home –</p> <p><i>Mark (X) ONE box.</i></p> <p><input type="checkbox"/> Owned by you or someone in this household with a mortgage or loan? (include home equity loans.)</p> <p><input type="checkbox"/> Owned by you or someone in this household free and clear (without a mortgage or loan)?</p> <p><input type="checkbox"/> Rented?</p> <p><input type="checkbox"/> Occupied without payment of rent? → SKIP to C</p>	<p>18 Is this house, apartment, or mobile home –</p> <p><i>Mark (X) ONE box.</i></p> <p><input type="checkbox"/> Owned by you or someone in this household with a mortgage or loan? (include home equity loans.)</p> <p><input type="checkbox"/> Owned by you or someone in this household free and clear (without a mortgage or loan)?</p> <p><input type="checkbox"/> Rented?</p> <p><input type="checkbox"/> Occupied without payment of rent? → SKIP to C</p>	<p>Unchanged</p>
<p>B Answer questions 18a and b ONLY if you PAY RENT for this house, apartment, or mobile home. Otherwise, SKIP to question 19.</p> <p>18 a. What is the monthly rent for this house, apartment, or mobile home? Monthly amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>b. Does the monthly rent include any meals?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>B Answer questions 18a and b ONLY if you PAY RENT for this house, apartment, or mobile home. Otherwise, SKIP to question 19.</p> <p>18 a. What is the monthly rent for this house, apartment, or mobile home? Monthly amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>b. Does the monthly rent include any meals?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>B Answer questions 18a and b. If this house, apartment, or mobile home is RENTED. Otherwise, SKIP to question 16.</p> <p>18 a. What is the monthly rent for this house, apartment, or mobile home? Monthly amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>b. Does the monthly rent include any meals?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>B Answer questions 18a and b. If this house, apartment, or mobile home is RENTED. Otherwise, SKIP to question 16.</p> <p>18 a. What is the monthly rent for this house, apartment, or mobile home? Monthly amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>b. Does the monthly rent include any meals?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>C Answer questions 19-23 ONLY. If you or someone else in this household OWNS or IS BUYING this house, apartment, or mobile home. Otherwise, SKIP to E on the next page.</p> <p>19 What is the value of this property that is, how much do you think this house and lot, apartment, or mobile home and lot, would sell for if it were for sale?</p> <p><input type="checkbox"/> Less than \$10,000 <input type="checkbox"/> \$10,000 to \$14,999 <input type="checkbox"/> \$15,000 to \$19,999 <input type="checkbox"/> \$20,000 to \$24,999 <input type="checkbox"/> \$25,000 to \$29,999 <input type="checkbox"/> \$30,000 to \$34,999 <input type="checkbox"/> \$35,000 to \$39,999 <input type="checkbox"/> \$40,000 to \$49,999 <input type="checkbox"/> \$50,000 to \$59,999 <input type="checkbox"/> \$60,000 to \$69,999 <input type="checkbox"/> \$70,000 to \$79,999 <input type="checkbox"/> \$80,000 to \$89,999 <input type="checkbox"/> \$90,000 to \$99,999 <input type="checkbox"/> \$100,000 to \$124,999 <input type="checkbox"/> \$125,000 to \$149,999 <input type="checkbox"/> \$150,000 to \$174,999 <input type="checkbox"/> \$175,000 to \$199,999 <input type="checkbox"/> \$200,000 to \$249,999 <input type="checkbox"/> \$250,000 or more – Specify Z</p> <p>\$ <input type="text" value=""/> .00</p> <p>20 What are the annual real estate taxes on THIS property? Annual amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>C Answer questions 19-23 ONLY. If you or someone else in this household OWNS or IS BUYING this house, apartment, or mobile home. Otherwise, SKIP to E on the next page.</p> <p>19 What is the value of this property: that is, how much do you think this house and lot, apartment, or mobile home and lot, would sell for if it were for sale?</p> <p><input type="checkbox"/> Less than \$10,000 <input type="checkbox"/> \$10,000 to \$14,999 <input type="checkbox"/> \$15,000 to \$19,999 <input type="checkbox"/> \$20,000 to \$24,999 <input type="checkbox"/> \$25,000 to \$29,999 <input type="checkbox"/> \$30,000 to \$34,999 <input type="checkbox"/> \$35,000 to \$39,999 <input type="checkbox"/> \$40,000 to \$49,999 <input type="checkbox"/> \$50,000 to \$59,999 <input type="checkbox"/> \$60,000 to \$69,999 <input type="checkbox"/> \$70,000 to \$79,999 <input type="checkbox"/> \$80,000 to \$89,999 <input type="checkbox"/> \$90,000 to \$99,999 <input type="checkbox"/> \$100,000 to \$124,999 <input type="checkbox"/> \$125,000 to \$149,999 <input type="checkbox"/> \$150,000 to \$174,999 <input type="checkbox"/> \$175,000 to \$199,999 <input type="checkbox"/> \$200,000 to \$249,999 <input type="checkbox"/> \$250,000 or more – Specify Z</p> <p>\$ <input type="text" value=""/> .00</p> <p>20 What are the annual real estate taxes on THIS property? Annual amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>C Answer questions 16 – 20 if you or someone else in this household OWNS or IS BUYING this house, apartment, or mobile home. Otherwise, SKIP to E on the next page.</p> <p>16 About how much do you think this house and lot, apartment, or mobile home (and lot, if owned) would sell for if it were for sale?</p> <p>Amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>17 What are the annual real estate taxes on THIS property? Annual amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>C Answer questions 16 – 20 if you or someone else in this household OWNS or IS BUYING this house, apartment, or mobile home. Otherwise, SKIP to E on the next page.</p> <p>16 About how much do you think this house and lot, apartment, or mobile home (and lot, if owned) would sell for if it were for sale?</p> <p>Amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>17 What are the annual real estate taxes on THIS property? Annual amount – Dollars</p> <p>\$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>21 What is the annual payment for fire, hazard, and flood insurance on THIS property?</p> <p>Annual amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>21 What is the annual payment for fire, hazard, and flood insurance on THIS property?</p> <p>Annual amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>19 What is the annual payment for fire, hazard, and flood insurance on THIS property?</p> <p>Annual amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>19 What is the annual payment for fire, hazard, and flood insurance on THIS property?</p> <p>Annual amount – Dollars</p> <p>\$ <input type="text" value="00"/></p> <p>OR</p> <p><input type="checkbox"/> None</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>23 a. Do you or any member of this household have a second mortgage or a home equity loan on THIS property?</p> <p><input type="checkbox"/> Yes, home equity loan <input type="checkbox"/> Yes, second mortgage <input type="checkbox"/> Yes, second mortgage and home equity loan <input checked="" type="checkbox"/> No → SKIP to D</p> <p>b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on THIS property?</p> <p>Monthly amount – Dollars \$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> No regular payment required</p> <p>D Answer question 24 ONLY. If this is a MOBILE HOME, Otherwise, SKIP to E.</p>	<p>23 a. Do you or any member of this household have a second mortgage or a home equity loan on THIS property?</p> <p><input type="checkbox"/> Yes, home equity loan <input type="checkbox"/> Yes, second mortgage <input type="checkbox"/> Yes, second mortgage and home equity loan <input checked="" type="checkbox"/> No → SKIP to D</p> <p>b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on THIS property?</p> <p>Monthly amount – Dollars \$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> No regular payment required</p> <p>D Answer question 24 ONLY. If this is a MOBILE HOME, Otherwise, SKIP to E.</p>	<p>20 a. Do you or any member of this household have a second mortgage or a home equity loan on THIS property?</p> <p><input type="checkbox"/> Yes, home equity loan <input type="checkbox"/> Yes, second mortgage <input type="checkbox"/> Yes, second mortgage and home equity loan <input checked="" type="checkbox"/> No → SKIP to D</p> <p>b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on THIS property?</p> <p>Monthly amount – Dollars \$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> No regular payment required</p> <p>D Answer question 21 if this is a MOBILE HOME, Otherwise, SKIP to E.</p>	<p>20 a. Do you or any member of this household have a second mortgage or a home equity loan on THIS property?</p> <p><input type="checkbox"/> Yes, home equity loan <input type="checkbox"/> Yes, second mortgage <input type="checkbox"/> Yes, second mortgage and home equity loan <input checked="" type="checkbox"/> No → SKIP to D</p> <p>b. How much is the regular monthly payment on all second or junior mortgages and all home equity loans on THIS property?</p> <p>Monthly amount – Dollars \$ <input type="text" value=""/> .00</p> <p>OR</p> <p><input type="checkbox"/> No regular payment required</p> <p>D Answer question 21 if this is a MOBILE HOME, Otherwise, SKIP to E.</p>	<p>Unchanged</p>
<p>21 What are the total annual costs for personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site? Exclude real estate taxes.</p> <p>Annual costs – Dollars \$ <input type="text" value=""/> .00</p>	<p>21 What are the total annual costs for personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site? Exclude real estate taxes.</p> <p>Annual costs – Dollars \$ <input type="text" value=""/> .00</p>	<p>21 What are the total annual costs for personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site? Exclude real estate taxes.</p> <p>Annual costs – Dollars \$ <input type="text" value=""/> .00</p>	<p>21 What are the total annual costs for personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site? Exclude real estate taxes.</p> <p>Annual costs – Dollars \$ <input type="text" value=""/> .00</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>E Answer questions 25–c ONLY if you listed at least one person on page 2. Otherwise, SKIP to page 26 for the mailing instructions.</p> <p>25 a. Do you or any member of this household live or stay at this address year round? <input type="checkbox"/> Yes → SKIP to the questions for Person 1 on the next page. <input type="checkbox"/> No</p> <p>b. How many months a year do members of this household stay at this address? Months: <input type="text"/></p> <p>c. What is the main reason members of this household are staying at this address? <input type="checkbox"/> This is their permanent address <input type="checkbox"/> This is their seasonal or vacation address <input type="checkbox"/> To be close to work <input type="checkbox"/> To attend school or college <input type="checkbox"/> Looking for permanent housing <input type="checkbox"/> Other reason(s) — Specify <i>Z</i></p> <p>➔ Continue with the questions about PERSON 1 on the next page.</p>	<p>E Answer questions 25a–c ONLY if you listed at least one person on page 2. Otherwise, SKIP to page 24 for the mailing instructions.</p> <p>25 a. Do you or any member of this household live or stay at this address year round? <input type="checkbox"/> Yes → SKIP to the questions for Person 1 on the next page. <input type="checkbox"/> No</p> <p>b. How many months a year do members of this household stay at this address? Months: <input type="text"/></p> <p>c. What is the main reason members of this household are staying at this address? <input type="checkbox"/> This is their permanent address <input type="checkbox"/> This is their seasonal or vacation address <input type="checkbox"/> To be close to work <input type="checkbox"/> To attend school or college <input type="checkbox"/> Looking for permanent housing <input type="checkbox"/> Other reason(s) — Specify <i>Z</i></p> <p>➔ Continue with the questions about PERSON 1 on the next page.</p>	<p>E Answer questions about PERSON 1 on the next page if you listed at least one person on page 2. Otherwise, SKIP to page 28 for the mailing instructions.</p>	<p>E Answer questions about PERSON 1 on the next page if you listed at least one person on page 2. Otherwise, SKIP to page 28 for the mailing instructions.</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>Person 1</p> <p>Please copy the name of Person 1 from the List of Residents on page 2, then continue answering questions below.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/></p> <p>MI <input type="text"/></p> <p>Where was this person born?</p> <p><input type="checkbox"/> In the United States – <i>Print name of state.</i></p> <p><input type="checkbox"/> Outside the United States – <i>Print name of foreign country, or Puerto Rico, Guam, etc.</i></p>	<p>Person 1</p> <p>Please copy the name of Person 1 from the List of Residents on page 2, then continue answering questions below.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/></p> <p>MI <input type="text"/></p> <p>Where was this person born?</p> <p><input type="checkbox"/> In the United States – <i>Print name of state.</i></p> <p><input type="checkbox"/> Outside the United States – <i>Print name of foreign country, or Puerto Rico, Guam, etc.</i></p>	<p>Person 1</p> <p>Please copy the name of Person 1 from Page 2, then continue answering questions below.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/></p> <p>MI <input type="text"/></p> <p>Where was this person born?</p> <p><input type="checkbox"/> In the United States – <i>Print name of state.</i></p> <p><input type="checkbox"/> Outside the United States – <i>Print name of foreign country, or Puerto Rico, Guam, etc.</i></p>	<p>Person 1</p> <p>Please copy the name of Person 1 from page 2, then continue answering questions below.</p> <p>Last Name <input type="text"/></p> <p>First Name <input type="text"/></p> <p>MI <input type="text"/></p> <p>Where was this person born?</p> <p><input type="checkbox"/> In the United States – <i>Print name of state.</i></p> <p><input type="checkbox"/> Outside the United States – <i>Print name of foreign country, or Puerto Rico, Guam, etc.</i></p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>8 Is this person a citizen of the United States?</p> <p><input type="checkbox"/> Yes, born in the United States → SKIP to 10a</p> <p><input type="checkbox"/> Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas</p> <p><input type="checkbox"/> Yes, born abroad of American parent or parents</p> <p><input type="checkbox"/> Yes, U.S. citizen by naturalization</p> <p><input type="checkbox"/> No, not a citizen of the United States</p>	<p>8 Is this person a CITIZEN of the United States?</p> <p><input type="checkbox"/> Yes, born in the United States → SKIP to 10a</p> <p><input type="checkbox"/> Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas</p> <p><input type="checkbox"/> Yes, born abroad of American parent or parents</p> <p><input type="checkbox"/> Yes, U.S. citizen by naturalization</p> <p><input type="checkbox"/> No, not a citizen of the United States</p>	<p>8 Is this person a citizen of the United States?</p> <p><input type="checkbox"/> Yes, born in the United States → SKIP to 10a</p> <p><input type="checkbox"/> Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas</p> <p><input type="checkbox"/> Yes, born abroad of U.S. citizen parent or parents</p> <p><input type="checkbox"/> Yes, U.S. citizen by naturalization – Print year of naturalization → []</p> <p><input type="checkbox"/> No, not a U.S. citizen</p>	<p>8 Is this person a citizen of the United States?</p> <p><input type="checkbox"/> Yes, born in the United States → SKIP to 10a</p> <p><input type="checkbox"/> Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas</p> <p><input type="checkbox"/> Yes, born abroad of U.S. citizen parent or parents</p> <p><input type="checkbox"/> Yes, U.S. citizen by naturalization – Print year of naturalization → []</p> <p><input type="checkbox"/> No, not a U.S. citizen</p>	Unchanged
<p>9 When did this person come to live in the United States? Print numbers in boxes.</p> <p>Year [] [] [] []</p>	<p>9 When did this person come to live in the United States? Print numbers in boxes.</p> <p>Year [] [] [] []</p>	<p>9 When did this person come to live in the United States? Print numbers in boxes.</p> <p>Year [] [] [] []</p>	<p>9 When did this person come to live in the United States? Print numbers in boxes.</p> <p>Year [] [] [] []</p>	Unchanged
<p>10 a. At any time IN THE LAST 3 MONTHS, has this person attended regular school or college? (Include only elementary school, and schooling which leads to a high school diploma or a college degree.)</p> <p><input type="checkbox"/> No, has not attended in the last 3 months → SKIP to question 11</p> <p><input type="checkbox"/> Yes, public school, public college</p> <p><input type="checkbox"/> Yes, private school, private college</p> <p>b. What grade or level was this person attending? Mark [X] ONE box.</p> <p><input type="checkbox"/> Nursery school, preschool</p> <p><input type="checkbox"/> Kindergarten</p> <p><input type="checkbox"/> Grade 1 to grade 4</p> <p><input type="checkbox"/> Grade 5 to grade 8</p> <p><input type="checkbox"/> Grade 9 to grade 12</p> <p><input type="checkbox"/> College undergraduate years (freshman to senior)</p> <p><input type="checkbox"/> Graduate or professional school (for example, medical, dental, or law school)</p>	<p>10 a. At any time IN THE LAST 3 MONTHS, has this person attended regular school or college? (Include only elementary school, and schooling which leads to a high school diploma or a college degree.)</p> <p><input type="checkbox"/> No, has not attended in the last 3 months → SKIP to question 11</p> <p><input type="checkbox"/> Yes, public school, public college</p> <p><input type="checkbox"/> Yes, private school, private college</p> <p>b. What grade or level was this person attending? Mark [X] ONE box.</p> <p><input type="checkbox"/> Nursery school, preschool</p> <p><input type="checkbox"/> Kindergarten</p> <p><input type="checkbox"/> Grade 1 to grade 4</p> <p><input type="checkbox"/> Grade 5 to grade 8</p> <p><input type="checkbox"/> Grade 9 to grade 12</p> <p><input type="checkbox"/> College undergraduate years (freshman to senior)</p> <p><input type="checkbox"/> Graduate or professional school (for example, medical, dental, or law school)</p>	<p>10 a. At any time IN THE LAST 3 MONTHS, has this person attended school or college? (Include only elementary school, home school, and schooling which leads to a high school diploma or a college degree.)</p> <p><input type="checkbox"/> No, has not attended in the last 3 months → SKIP to question 11</p> <p><input type="checkbox"/> Yes, public school, public college</p> <p><input type="checkbox"/> Yes, private school, private college, home school</p> <p>b. What grade or level was this person attending? Mark [X] ONE box.</p> <p><input type="checkbox"/> Nursery school, preschool</p> <p><input type="checkbox"/> Kindergarten</p> <p><input type="checkbox"/> Grade 1 through 12 – Specify grade 1 – 12 → []</p> <p><input type="checkbox"/> College undergraduate years (freshman to senior)</p> <p><input type="checkbox"/> Graduate or professional school beyond a bachelor's degree (for example, MA or PhD program, or medical or law school)</p>	<p>10 a. At any time IN THE LAST 3 MONTHS, has this person attended school or college? (Include only elementary school, home school, and schooling which leads to a high school diploma or a college degree.)</p> <p><input type="checkbox"/> No, has not attended in the last 3 months → SKIP to question 11</p> <p><input type="checkbox"/> Yes, public school, public college</p> <p><input type="checkbox"/> Yes, private school, private college, home school</p> <p>b. What grade or level was this person attending? Mark [X] ONE box.</p> <p><input type="checkbox"/> Nursery school, preschool</p> <p><input type="checkbox"/> Kindergarten</p> <p><input type="checkbox"/> Grade 1 through 12 – Specify grade 1 – 12 → []</p> <p><input type="checkbox"/> College undergraduate years (freshman to senior)</p> <p><input type="checkbox"/> Graduate or professional school beyond a bachelor's degree (for example, MA or PhD program, or medical or law school)</p>	Unchanged

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>11 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.</p> <p><input type="checkbox"/> No schooling completed <input type="checkbox"/> Nursery school to 4th grade <input type="checkbox"/> 5th grade or 6th grade <input type="checkbox"/> 7th grade or 8th grade <input type="checkbox"/> 9th grade <input type="checkbox"/> 10th grade <input type="checkbox"/> 11th grade <input type="checkbox"/> 12th grade - NO DIPLOMA <input type="checkbox"/> HIGH SCHOOL GRADUATE - high school DIPLOMA or the equivalent (for example: GED) <input type="checkbox"/> Some college credit, but less than 1 year <input type="checkbox"/> Associate degree (for example: AA, AS) <input type="checkbox"/> Bachelor's degree (for example: BA, AB, BS) <input type="checkbox"/> Master's degree (for example: MA, MS, MENG, MEd, MSW, MBA) <input type="checkbox"/> Professional degree (for example: MD, DDS, DVM, LLB, JD) <input type="checkbox"/> Doctorate degree (for example: PhD, EdD)</p>	<p>11 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.</p> <p><input type="checkbox"/> No schooling completed <input type="checkbox"/> Nursery school to 4th grade <input type="checkbox"/> 5th grade or 6th grade <input type="checkbox"/> 7th grade or 8th grade <input type="checkbox"/> 9th grade <input type="checkbox"/> 10th grade <input type="checkbox"/> 11th grade <input type="checkbox"/> 12th grade - NO DIPLOMA <input type="checkbox"/> HIGH SCHOOL GRADUATE - high school DIPLOMA or the equivalent (for example: GED) <input type="checkbox"/> Some college credit, but less than 1 year <input type="checkbox"/> 1 or more years of college, no degree <input type="checkbox"/> Associate degree (for example: AA, AS) <input type="checkbox"/> Bachelor's degree (for example: BA, AB, BS) <input type="checkbox"/> Master's degree (for example: MA, MS, MENG, MEd, MSW, MBA) <input type="checkbox"/> Professional degree (for example: MD, DDS, DVM, LLB, JD) <input type="checkbox"/> Doctorate degree (for example: PhD, EdD)</p>	<p>11 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.</p> <p><input type="checkbox"/> NO SCHOOLING COMPLETED <input type="checkbox"/> NURSERY OR PRESCHOOL THROUGH GRADE 12 <input type="checkbox"/> Nursery school <input type="checkbox"/> Kindergarten <input type="checkbox"/> Grade 1 through 11 - Specify <input type="checkbox"/> Grade 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 12th grade - NO DIPLOMA <input type="checkbox"/> HIGH SCHOOL GRADUATE <input type="checkbox"/> Regular high school diploma <input type="checkbox"/> GED or alternative credential <input type="checkbox"/> COLLEGE OR SOME COLLEGE <input type="checkbox"/> Some college credit, but less than 1 year of college credit <input type="checkbox"/> 1 or more years of college credit, no degree <input type="checkbox"/> Associate's degree (for example: AA, AS) <input type="checkbox"/> Bachelor's degree (for example: BA, BS) <input type="checkbox"/> AFTER BACHELOR'S DEGREE <input type="checkbox"/> Master's degree (for example: MA, MS, MENG, MEd, MSW, MBA) <input type="checkbox"/> Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) <input type="checkbox"/> Doctorate degree (for example: PhD, EdD)</p>	<p>11 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.</p> <p><input type="checkbox"/> NO SCHOOLING COMPLETED <input type="checkbox"/> NURSERY OR PRESCHOOL THROUGH GRADE 12 <input type="checkbox"/> Nursery school <input type="checkbox"/> Kindergarten <input type="checkbox"/> Grade 1 through 11 - Specify <input type="checkbox"/> Grade 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12 <input type="checkbox"/> 12th grade - NO DIPLOMA <input type="checkbox"/> HIGH SCHOOL GRADUATE <input type="checkbox"/> Regular high school diploma <input type="checkbox"/> GED or alternative credential <input type="checkbox"/> COLLEGE OR SOME COLLEGE <input type="checkbox"/> Some college credit, but less than 1 year of college credit <input type="checkbox"/> 1 or more years of college credit, no degree <input type="checkbox"/> Associate's degree (for example: AA, AS) <input type="checkbox"/> Bachelor's degree (for example: BA, BS) <input type="checkbox"/> AFTER BACHELOR'S DEGREE <input type="checkbox"/> Master's degree (for example: MA, MS, MENG, MEd, MSW, MBA) <input type="checkbox"/> Professional degree beyond a bachelor's degree (for example: MD, DDS, DVM, LLB, JD) <input type="checkbox"/> Doctorate degree (for example: PhD, EdD)</p>	<p>Unchanged</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>Not asked</p>	<p>Not asked</p>	<p>Not asked</p>	<p>F Answer question 12 if this person has a bachelor's degree or higher. Otherwise, skip to question 13.</p>	<p>Description of Changes from 2008 to 2009: New skip instruction and question for 2009.</p>
<p>12 What is this person's ancestry or ethnic origin?</p> <p>(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)</p>	<p>12 What is this person's ancestry or ethnic origin?</p> <p>(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)</p>	<p>12 What is this person's ancestry or ethnic origin?</p> <p>(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)</p>	<p>13 What is this person's ancestry or ethnic origin?</p> <p>(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)</p>	<p>Question number changed from 12 to 13.</p>
<p>13 a. Does this person speak a language other than English at home?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → skip to question 14</p> <p>b. What is this language?</p> <p>(For example: Korean, Italian, Spanish, Vietnamese)</p> <p>c. How well does this person speak English?</p> <p><input type="checkbox"/> Very well <input type="checkbox"/> Well <input type="checkbox"/> Not well <input type="checkbox"/> Not at all</p>	<p>13 a. Does this person speak a language other than English at home?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → skip to question 14</p> <p>b. What is this language?</p> <p>(For example: Korean, Italian, Spanish, Vietnamese)</p> <p>c. How well does this person speak English?</p> <p><input type="checkbox"/> Very well <input type="checkbox"/> Well <input type="checkbox"/> Not well <input type="checkbox"/> Not at all</p>	<p>13 a. Does this person speak a language other than English at home?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → skip to question 14a</p> <p>b. What is this language?</p> <p>(For example: Korean, Italian, Spanish, Vietnamese)</p> <p>c. How well does this person speak English?</p> <p><input type="checkbox"/> Very well <input type="checkbox"/> Well <input type="checkbox"/> Not well <input type="checkbox"/> Not at all</p>	<p>14 a. Does this person speak a language other than English at home?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → skip to question 15a</p> <p>b. What is this language?</p> <p>(For example: Korean, Italian, Spanish, Vietnamese)</p> <p>c. How well does this person speak English?</p> <p><input type="checkbox"/> Very well <input type="checkbox"/> Well <input type="checkbox"/> Not well <input type="checkbox"/> Not at all</p>	<p>Question number changed from 13 to 14.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>14 a. Did this person live in this house or apartment 1 year ago?</p> <p><input type="checkbox"/> Person is under 1 year old → SKIP to the questions for Person 2 on page 10.</p> <p><input type="checkbox"/> Yes, this house → SKIP to 15</p> <p><input type="checkbox"/> No, outside the United States – Print name of person living in house on page 10a, Guam, etc., below, then SKIP to 15</p> <p><input type="checkbox"/> No, different house in the United States</p> <p>b. Where did this person live 1 year ago?</p> <p>Name of city, town, or post office _____</p> <p>c. Did this person live inside the limits of the city or town?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No, outside the city/town limits</p> <p>Name of county _____</p> <p>Name of state _____ ZIP Code _____</p>	<p>14 a. Did this person live in this house or apartment 1 year ago?</p> <p><input type="checkbox"/> Person is under 1 year old → SKIP to the questions for Person 2 on page 10.</p> <p><input type="checkbox"/> Yes, this house → SKIP to 15</p> <p><input type="checkbox"/> No, outside the United States – Print name of person living in house on page 10a, Guam, etc., below, then SKIP to 15</p> <p><input type="checkbox"/> No, different house in the United States</p> <p>b. Where did this person live 1 year ago?</p> <p>Name of city, town, or post office _____</p> <p>c. Did this person live inside the limits of the city or town?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No, outside the city/town limits</p> <p>Name of county _____</p> <p>Name of state _____ ZIP Code _____</p>	<p>14 a. Did this person live in this house or apartment 1 year ago?</p> <p><input type="checkbox"/> Person is under 1 year old → SKIP to question 15</p> <p><input type="checkbox"/> Yes, this house → SKIP to question 15</p> <p><input type="checkbox"/> No, outside the United States and Puerto Rico – Print name of person living in house on page 10a, Guam, etc., below, then SKIP to question 15</p> <p><input type="checkbox"/> No, different house in the United States or Puerto Rico</p> <p>b. Where did this person live 1 year ago?</p> <p>Address (Number and street name) _____</p> <p>Name of city, town, or post office _____</p> <p>Name of U.S. county or municipio in Puerto Rico _____</p> <p>Name of U.S. state or Puerto Rico _____ ZIP Code _____</p>	<p>15 a. Did this person live in this house or apartment 1 year ago?</p> <p><input type="checkbox"/> Person is under 1 year old → SKIP to question 16</p> <p><input type="checkbox"/> Yes, this house → SKIP to question 16</p> <p><input type="checkbox"/> No, outside the United States and Puerto Rico – Print name of foreign country, Guam, etc., below, then SKIP to question 16</p> <p><input type="checkbox"/> No, different house in the United States or Puerto Rico</p> <p>b. Where did this person live 1 year ago?</p> <p>Address (Number and street name) _____</p> <p>Name of city, town, or post office _____</p> <p>Name of U.S. county or municipio in Puerto Rico _____</p> <p>Name of U.S. state or Puerto Rico _____ ZIP Code _____</p>	<p>✓ Description of Changes from 2008 to 2009</p> <p>Question number changed from 14 to 15.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009																																																
Not asked	Not asked	<p>13 Is this person CURRENTLY covered by any of the coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a – h.</p> <table border="0"> <tr> <td>a. Insurance through a current or former employer or union (of this person or another family member)</td> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> </tr> <tr> <td>b. Insurance purchased directly from a person or another family member</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>c. Medicare for people 65 and older or people with certain disabilities</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>e. TRICARE or other military health care</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>f. VA (including those who have ever used or enrolled for VA health care)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>g. Indian Health Service</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	a. Insurance through a current or former employer or union (of this person or another family member)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	b. Insurance purchased directly from a person or another family member	<input type="checkbox"/>	<input type="checkbox"/>	c. Medicare for people 65 and older or people with certain disabilities	<input type="checkbox"/>	<input type="checkbox"/>	d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	<input type="checkbox"/>	<input type="checkbox"/>	e. TRICARE or other military health care	<input type="checkbox"/>	<input type="checkbox"/>	f. VA (including those who have ever used or enrolled for VA health care)	<input type="checkbox"/>	<input type="checkbox"/>	g. Indian Health Service	<input type="checkbox"/>	<input type="checkbox"/>	h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>16 Is this person CURRENTLY covered by any of the coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a – h.</p> <table border="0"> <tr> <td>a. Insurance through a current or former employer or union (of this person or another family member)</td> <td>Yes <input type="checkbox"/></td> <td>No <input type="checkbox"/></td> </tr> <tr> <td>b. Insurance purchased directly from a person or another family member</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>c. Medicare for people 65 and older or people with certain disabilities</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>e. TRICARE or other military health care</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>f. VA (including those who have ever used or enrolled for VA health care)</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>g. Indian Health Service</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	a. Insurance through a current or former employer or union (of this person or another family member)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	b. Insurance purchased directly from a person or another family member	<input type="checkbox"/>	<input type="checkbox"/>	c. Medicare for people 65 and older or people with certain disabilities	<input type="checkbox"/>	<input type="checkbox"/>	d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	<input type="checkbox"/>	<input type="checkbox"/>	e. TRICARE or other military health care	<input type="checkbox"/>	<input type="checkbox"/>	f. VA (including those who have ever used or enrolled for VA health care)	<input type="checkbox"/>	<input type="checkbox"/>	g. Indian Health Service	<input type="checkbox"/>	<input type="checkbox"/>	h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Question number changed from 15 to 16.</p>
a. Insurance through a current or former employer or union (of this person or another family member)	Yes <input type="checkbox"/>	No <input type="checkbox"/>																																																		
b. Insurance purchased directly from a person or another family member	<input type="checkbox"/>	<input type="checkbox"/>																																																		
c. Medicare for people 65 and older or people with certain disabilities	<input type="checkbox"/>	<input type="checkbox"/>																																																		
d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	<input type="checkbox"/>	<input type="checkbox"/>																																																		
e. TRICARE or other military health care	<input type="checkbox"/>	<input type="checkbox"/>																																																		
f. VA (including those who have ever used or enrolled for VA health care)	<input type="checkbox"/>	<input type="checkbox"/>																																																		
g. Indian Health Service	<input type="checkbox"/>	<input type="checkbox"/>																																																		
h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
a. Insurance through a current or former employer or union (of this person or another family member)	Yes <input type="checkbox"/>	No <input type="checkbox"/>																																																		
b. Insurance purchased directly from a person or another family member	<input type="checkbox"/>	<input type="checkbox"/>																																																		
c. Medicare for people 65 and older or people with certain disabilities	<input type="checkbox"/>	<input type="checkbox"/>																																																		
d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	<input type="checkbox"/>	<input type="checkbox"/>																																																		
e. TRICARE or other military health care	<input type="checkbox"/>	<input type="checkbox"/>																																																		
f. VA (including those who have ever used or enrolled for VA health care)	<input type="checkbox"/>	<input type="checkbox"/>																																																		
g. Indian Health Service	<input type="checkbox"/>	<input type="checkbox"/>																																																		
h. Any other type of health insurance or health coverage plan – Specify <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>F Answer questions 15 and 16 ONLY if this person is 5 years old or over. Otherwise, skip to the questions for PERSON 2 on page 10.</p> <p>15 Does this person have any of the following long-lasting conditions:</p> <p>a. Blindness, deafness, or a severe vision or hearing impairment? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>16 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:</p> <p>a. Learning, remembering, or concentrating? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Dressing, bathing, or getting around inside the home? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>F Answer questions 15 and 16 ONLY if this person is 5 years old or over. Otherwise, skip to the questions for PERSON 2 on page 10.</p> <p>15 Does this person have any of the following long-lasting conditions:</p> <p>a. Blindness, deafness, or a severe vision or hearing impairment? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>16 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:</p> <p>a. Learning, remembering, or concentrating? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Dressing, bathing, or getting around inside the home? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>19 a. Is this person deaf or does he/she have serious difficulty hearing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Is this person blind or does he/she have serious difficulty seeing even when wearing glasses? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>17 a. Is this person deaf or does he/she have serious difficulty hearing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Is this person blind or does he/she have serious difficulty seeing even when wearing glasses? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Description of Changes from 2008 to 2009</p> <p>Question number changed from 16 to 17.</p> <p>Skip instruction designer or changed from F to G.</p> <p>Question number changed from 17 to 18.</p>
	<p>F Answer question 17a – c if this person is 5 years old or over. Otherwise, skip to the questions for Person 2 on page 12.</p> <p>17 a. Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Does this person have serious difficulty walking or climbing stairs? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>c. Does this person have difficulty dressing or bathing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>G Answer question 18a – c if this person is 5 years old or over. Otherwise, skip to the questions for Person 2 on page 12.</p> <p>18 a. Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Does this person have serious difficulty walking or climbing stairs? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>c. Does this person have difficulty dressing or bathing? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>G Answer question 17 ONLY if this person is 15 years old or over. Otherwise, SKIP to the questions for PERSON 2 on page 10.</p> <p>17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have difficulty in doing any of the following activities: a. Going outside the home alone to a shop or visit a doctor's office? Yes <input type="checkbox"/> No <input type="checkbox"/> b. Working at a job or business? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>G Answer question 17 ONLY if this person is 15 years old or over. Otherwise, SKIP to the questions for PERSON 2 on page 10.</p> <p>17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have difficulty in doing any of the following activities: a. Going outside the home alone to a shop or visit a doctor's office? Yes <input type="checkbox"/> No <input type="checkbox"/> b. Working at a job or business? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>G Answer question 18 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 12.</p> <p>18 Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>20 In the PAST 12 MONTHS did this person get - a. Married? Yes <input type="checkbox"/> No <input type="checkbox"/> b. Widowed? Yes <input type="checkbox"/> No <input type="checkbox"/> c. Divorced? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>H Answer question 19 if this person is 15 years old or over. Otherwise, SKIP to the questions for Person 2 on page 12.</p> <p>19 Because of a physical, mental, or emotional condition, does this person have difficulty going errands alone such as visiting a doctor's office or shopping? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>21 In the PAST 12 MONTHS did this person get - a. Married? Yes <input type="checkbox"/> No <input type="checkbox"/> b. Widowed? Yes <input type="checkbox"/> No <input type="checkbox"/> c. Divorced? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>✓ Skip instruction designator changed from G to H. ✓ Question number changed from 18 to 19.</p>
<p>Not asked</p>	<p>Not asked</p>	<p>21 How many times has this person been married? <input type="checkbox"/> Once <input type="checkbox"/> Two times <input type="checkbox"/> Three or more times</p>	<p>22 How many times has this person been married? <input type="checkbox"/> Once <input type="checkbox"/> Two times <input type="checkbox"/> Three or more times</p>	<p>✓ Question number changed from 20 to 21. Note: marital status question (question number 20 in 2009) is presented on page 6 after Person question 2.</p>
<p>Not asked</p>	<p>Not asked</p>	<p>22 In what year did this person last get married? Year <input type="text"/></p>	<p>23 In what year did this person last get married? Year <input type="text"/></p>	<p>✓ Question number changed from 22 to 23.</p>
<p>18 Has this person given birth to any children in the past 12 months? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>H Answer question 18 ONLY if this person is female and 15-50 years old. Otherwise, SKIP to question 18k.</p> <p>18 Has this person given birth to any children in the past 12 months? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>H Answer question 23 if this person is female and 15 - 50 years old. Otherwise, SKIP to question 24a.</p> <p>23 Has this person given birth to any children in the past 12 months? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>I Answer question 24 if this person is female and 15 - 50 years old. Otherwise, SKIP to question 25a.</p> <p>24 Has this person given birth to any children in the past 12 months? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>✓ Skip instruction designator changed from H to I. ✓ Question number changed from 23 to 24.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 20</p> <p>b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 20</p> <p>c. How long has this grandparent been responsible for his/her grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.</p> <p><input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 to 11 months <input type="checkbox"/> 1 or 2 years <input type="checkbox"/> 3 or 4 years <input type="checkbox"/> 5 or more years</p>	<p>19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 20</p> <p>b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 20</p> <p>c. How long has this grandparent been responsible for his/her grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.</p> <p><input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 to 11 months <input type="checkbox"/> 1 or 2 years <input type="checkbox"/> 3 or 4 years <input type="checkbox"/> 5 or more years</p>	<p>24 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 25</p> <p>b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 25</p> <p>c. How long has this grandparent been responsible for his/her grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.</p> <p><input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 to 11 months <input type="checkbox"/> 1 or 2 years <input type="checkbox"/> 3 or 4 years <input type="checkbox"/> 5 or more years</p>	<p>25 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 28</p> <p>b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SK/P to question 28</p> <p>c. How long has this grandparent been responsible for his/her grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.</p> <p><input type="checkbox"/> Less than 6 months <input type="checkbox"/> 6 to 11 months <input type="checkbox"/> 1 or 2 years <input type="checkbox"/> 3 or 4 years <input type="checkbox"/> 5 or more years</p>	<p>✓ Description of Changes from 2008 to 2009 Question number changed from 24 to 25.</p>
<p>20 Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.</p> <p><input type="checkbox"/> Yes, now on active duty <input type="checkbox"/> Yes, now on active duty during the last 12 months, but not now <input type="checkbox"/> Yes, on active duty in the past, but not during the last 12 months <input type="checkbox"/> No, training for Reserves or National Guard only → SK/P to question 23 <input type="checkbox"/> No, never served in the military → SK/P to question 23</p>	<p>20 Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.</p> <p><input type="checkbox"/> Yes, now on active duty <input type="checkbox"/> Yes, now on active duty during the last 12 months, but not now <input type="checkbox"/> Yes, on active duty in the past, but not during the last 12 months <input type="checkbox"/> No, training for Reserves or National Guard only → SK/P to question 23 <input type="checkbox"/> No, never served in the military → SK/P to question 23</p>	<p>25 Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.</p> <p><input type="checkbox"/> Yes, now on active duty <input type="checkbox"/> Yes, now on active duty during the last 12 months, but not now <input type="checkbox"/> Yes, on active duty in the past, but not during the last 12 months <input type="checkbox"/> No, training for Reserves or National Guard only → SK/P to question 27a <input type="checkbox"/> No, never served in the military → SK/P to question 28b</p>	<p>26 Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.</p> <p><input type="checkbox"/> Yes, now on active duty <input type="checkbox"/> Yes, now on active duty during the last 12 months, but not now <input type="checkbox"/> Yes, on active duty in the past, but not during the last 12 months <input type="checkbox"/> No, training for Reserves or National Guard only → SK/P to question 28a <input type="checkbox"/> No, never served in the military → SK/P to question 28b</p>	<p>✓ Question number changed from 25 to 26.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>21 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for each period in which this person served, even if just for part of the period.</p> <p><input type="checkbox"/> September 2001 or later</p> <p><input type="checkbox"/> August 1990 to August 2001 (including Persian Gulf War)</p> <p><input type="checkbox"/> September 1980 to July 1990</p> <p><input type="checkbox"/> May 1975 to August 1980</p> <p><input type="checkbox"/> Vietnam era (August 1964 to April 1975)</p> <p><input type="checkbox"/> March 1961 to July 1964</p> <p><input type="checkbox"/> February 1955 to February 1961</p> <p><input type="checkbox"/> Korean War (July 1950 to January 1955)</p> <p><input type="checkbox"/> January 1947 to June 1950</p> <p><input type="checkbox"/> World War II (December 1941 to December 1946)</p> <p><input type="checkbox"/> November 1941 or earlier</p>	<p>21 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for each period in which this person served, even if just for part of the period.</p> <p><input type="checkbox"/> September 2001 or later</p> <p><input type="checkbox"/> August 1990 to August 2001 (including Persian Gulf War)</p> <p><input type="checkbox"/> September 1980 to July 1990</p> <p><input type="checkbox"/> May 1975 to August 1980</p> <p><input type="checkbox"/> Vietnam era (August 1964 to April 1975)</p> <p><input type="checkbox"/> March 1961 to July 1964</p> <p><input type="checkbox"/> February 1955 to February 1961</p> <p><input type="checkbox"/> Korean War (July 1950 to January 1955)</p> <p><input type="checkbox"/> January 1947 to June 1950</p> <p><input type="checkbox"/> World War II (December 1941 to December 1946)</p> <p><input type="checkbox"/> November 1941 or earlier</p>	<p>26 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for each period in which this person served, even if just for part of the period.</p> <p><input type="checkbox"/> September 2001 or later</p> <p><input type="checkbox"/> August 1990 to August 2001 (including Persian Gulf War)</p> <p><input type="checkbox"/> September 1980 to July 1990</p> <p><input type="checkbox"/> May 1975 to August 1980</p> <p><input type="checkbox"/> Vietnam era (August 1964 to April 1975)</p> <p><input type="checkbox"/> March 1961 to July 1964</p> <p><input type="checkbox"/> February 1955 to February 1961</p> <p><input type="checkbox"/> Korean War (July 1950 to January 1955)</p> <p><input type="checkbox"/> January 1947 to June 1950</p> <p><input type="checkbox"/> World War II (December 1941 to December 1946)</p> <p><input type="checkbox"/> November 1941 or earlier</p>	<p>27 When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for each period in which this person served, even if just for part of the period.</p> <p><input type="checkbox"/> September 2001 or later</p> <p><input type="checkbox"/> August 1990 to August 2001 (including Persian Gulf War)</p> <p><input type="checkbox"/> September 1980 to July 1990</p> <p><input type="checkbox"/> May 1975 to August 1980</p> <p><input type="checkbox"/> Vietnam era (August 1964 to April 1975)</p> <p><input type="checkbox"/> March 1961 to July 1964</p> <p><input type="checkbox"/> February 1955 to February 1961</p> <p><input type="checkbox"/> Korean War (July 1950 to January 1955)</p> <p><input type="checkbox"/> January 1947 to June 1950</p> <p><input type="checkbox"/> World War II (December 1941 to December 1946)</p> <p><input type="checkbox"/> November 1941 or earlier</p>	<p>✓ From 2008 to 2009 Question number changed from 26 to 27.</p>
<p>22 In total, how many years of active-duty military service has this person had?</p> <p><input type="checkbox"/> Less than 2 years</p> <p><input type="checkbox"/> 2 years or more</p>	<p>22 In total, how many years of active-duty military service has this person had?</p> <p><input type="checkbox"/> Less than 2 years</p> <p><input type="checkbox"/> 2 years or more</p>	<p>Not asked</p>	<p>Not asked</p>	<p>Unchanged</p>
<p>Not asked</p>	<p>Not asked</p>	<p>27 a. Does this person have a VA service-connected disability rating?</p> <p><input type="checkbox"/> Yes (such as 0%, 10%, 20%, ... , 100%)</p> <p><input type="checkbox"/> No → SKIP to question 28a</p> <p>b. What is this person's service-connected disability rating?</p> <p><input type="checkbox"/> 0 percent</p> <p><input type="checkbox"/> 10 or 20 percent</p> <p><input type="checkbox"/> 30 or 40 percent</p> <p><input type="checkbox"/> 50 or 60 percent</p> <p><input type="checkbox"/> 70 percent or higher</p>	<p>29 a. Does this person have a VA service-connected disability rating?</p> <p><input type="checkbox"/> Yes (such as 0%, 10%, 20%, ... , 100%)</p> <p><input type="checkbox"/> No → SKIP to question 28a</p> <p>b. What is this person's service-connected disability rating?</p> <p><input type="checkbox"/> 0 percent</p> <p><input type="checkbox"/> 10 or 20 percent</p> <p><input type="checkbox"/> 30 or 40 percent</p> <p><input type="checkbox"/> 50 or 60 percent</p> <p><input type="checkbox"/> 70 percent or higher</p>	<p>✓ Question number changed from 27 to 28.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>23 LAST WEEK, did this person do ANY work for pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 29</p>	<p>23 LAST WEEK, did this person do ANY work for pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 29</p>	<p>23 LAST WEEK, did this person work for pay at a job (or business)?</p> <p><input type="checkbox"/> Yes → SKIP to question 29 <input type="checkbox"/> No - Did not work (or retired)</p> <p>23 LAST WEEK, did this person do ANY work for pay, even for as little as one hour?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 34e</p>	<p>23 LAST WEEK, did this person work for pay at a job (or business)?</p> <p><input type="checkbox"/> Yes → SKIP to question 30 <input type="checkbox"/> No - Did not work (or retired)</p> <p>23 LAST WEEK, did this person do ANY work for pay, even for as little as one hour?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 35e</p>	<p>Description of Changes from 2008 to 2009</p> <p>Question number changed from 28 to 29.</p>
<p>24 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.</p> <p>a. Address (Number and street name)</p> <p>If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.</p> <p>b. Name of city, town, or post office</p> <p>c. Is the work location inside the limits of that city or town? <input type="checkbox"/> Yes <input type="checkbox"/> No, outside the city/town limits</p> <p>d. Name of county</p> <p>e. Name of U.S. state or foreign country</p> <p>f. ZIP Code</p>	<p>24 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.</p> <p>a. Address (Number and street name)</p> <p>If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.</p> <p>b. Name of city, town, or post office</p> <p>c. Is the work location inside the limits of that city or town? <input type="checkbox"/> Yes <input type="checkbox"/> No, outside the city/town limits</p> <p>d. Name of county</p> <p>e. Name of U.S. state or foreign country</p> <p>f. ZIP Code</p>	<p>24 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.</p> <p>a. Address (Number and street name)</p> <p>If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.</p> <p>b. Name of city, town, or post office</p> <p>c. Is the work location inside the limits of that city or town? <input type="checkbox"/> Yes <input type="checkbox"/> No, outside the city/town limits</p> <p>d. Name of county</p> <p>e. Name of U.S. state or foreign country</p> <p>f. ZIP Code</p>	<p>24 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.</p> <p>a. Address (Number and street name)</p> <p>If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.</p> <p>b. Name of city, town, or post office</p> <p>c. Is the work location inside the limits of that city or town? <input type="checkbox"/> Yes <input type="checkbox"/> No, outside the city/town limits</p> <p>d. Name of county</p> <p>e. Name of U.S. state or foreign country</p> <p>f. ZIP Code</p>	<p>Question number changed from 29 to 30.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>25 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.</p> <p><input type="checkbox"/> Car, truck, or van <input type="checkbox"/> Motorcycle <input type="checkbox"/> Bus or trolley bus <input type="checkbox"/> Bicycle <input type="checkbox"/> Streetcar or trolley car <input type="checkbox"/> Walked <input type="checkbox"/> Subway or elevated <input type="checkbox"/> Worked at home → SKIP to question 33 <input type="checkbox"/> Railroad <input type="checkbox"/> Other method <input type="checkbox"/> Ferryboat <input type="checkbox"/> Taxicab</p>	<p>25 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.</p> <p><input type="checkbox"/> Car, truck, or van <input type="checkbox"/> Motorcycle <input type="checkbox"/> Bus or trolley bus <input type="checkbox"/> Bicycle <input type="checkbox"/> Streetcar or trolley car <input type="checkbox"/> Walked <input type="checkbox"/> Subway or elevated <input type="checkbox"/> Worked at home → SKIP to question 33 <input type="checkbox"/> Railroad <input type="checkbox"/> Other method <input type="checkbox"/> Ferryboat <input type="checkbox"/> Taxicab</p>	<p>20 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.</p> <p><input type="checkbox"/> Car, truck, or van <input type="checkbox"/> Motorcycle <input type="checkbox"/> Bus or trolley bus <input type="checkbox"/> Bicycle <input type="checkbox"/> Streetcar or trolley car <input type="checkbox"/> Walked <input type="checkbox"/> Subway or elevated <input type="checkbox"/> Worked at home → SKIP to question 30a <input type="checkbox"/> Railroad <input type="checkbox"/> Other method <input type="checkbox"/> Ferryboat <input type="checkbox"/> Taxicab</p>	<p>31 How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.</p> <p><input type="checkbox"/> Car, truck, or van <input type="checkbox"/> Motorcycle <input type="checkbox"/> Bus or trolley bus <input type="checkbox"/> Bicycle <input type="checkbox"/> Streetcar or trolley car <input type="checkbox"/> Walked <input type="checkbox"/> Subway or elevated <input type="checkbox"/> Worked at home → SKIP to question 30a <input type="checkbox"/> Railroad <input type="checkbox"/> Other method <input type="checkbox"/> Ferryboat <input type="checkbox"/> Taxicab</p>	<p>✓ Description of Changes from 2008 to 2009 ✓ Question number changed from 30 to 31.</p>
<p>1 Answer question 26 ONLY if you marked "Car, truck, or van" in question 25. Otherwise, SKIP to question 27.</p> <p>26 How many people, including this person, usually rode to work in the car, truck, or van (Person(s))</p> <p>_____</p>	<p>1 Answer question 26 ONLY if you marked "Car, truck, or van" in question 25. Otherwise, SKIP to question 27.</p> <p>26 How many people, including this person, usually rode to work in the car, truck, or van (Person(s))</p> <p>_____</p>	<p>1 Answer question 31 if you marked "Car, truck, or van" in question 30. Otherwise, SKIP to question 32.</p> <p>31 How many people, including this person, usually rode to work in the car, truck, or van (Person(s))</p> <p>_____</p>	<p>1 Answer question 32 if you marked "Car, truck, or van" in question 31. Otherwise, SKIP to question 33.</p> <p>32 How many people, including this person, usually rode to work in the car, truck, or van (Person(s))</p> <p>_____</p>	<p>✓ Skip instruction changed from I to J. ✓ Question number changed from 31 to 32.</p>
<p>27 What time did this person usually leave home to go to work LAST WEEK?</p> <p>Hour Minute <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</p> <p>_____ : _____</p>	<p>27 What time did this person usually leave home to go to work LAST WEEK?</p> <p>Hour Minute <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</p> <p>_____ : _____</p>	<p>32 What time did this person usually leave home to go to work LAST WEEK?</p> <p>Hour Minute <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</p> <p>_____ : _____</p>	<p>33 What time did this person usually leave home to go to work LAST WEEK?</p> <p>Hour Minute <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</p> <p>_____ : _____</p>	<p>✓ Question number changed from 32 to 33.</p>
<p>28 How many minutes did it usually take this person to get from home to work LAST WEEK?</p> <p>Minutes</p> <p>_____</p>	<p>28 How many minutes did it usually take this person to get from home to work LAST WEEK?</p> <p>Minutes</p> <p>_____</p>	<p>33 How many minutes did it usually take this person to get from home to work LAST WEEK?</p> <p>Minutes</p> <p>_____</p>	<p>34 How many minutes did it usually take this person to get from home to work LAST WEEK?</p> <p>Minutes</p> <p>_____</p>	<p>✓ Question number changed from 33 to 34.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>29 Answer questions 28-32 ONLY if this person did NOT work last week. Otherwise, SKIP to question 33.</p> <p>a. LAST WEEK, was this person on layoff from a job?</p> <p><input type="checkbox"/> Yes → SKIP to question 29c <input type="checkbox"/> No</p> <p>b. LAST WEEK, was this person TEMPORARILY absent from a job or business?</p> <p><input type="checkbox"/> Yes, on vacation, temporary illness, labor dispute, etc. → SKIP to question 32 <input type="checkbox"/> No → SKIP to question 30</p> <p>c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?</p> <p><input type="checkbox"/> Yes → SKIP to question 31 <input type="checkbox"/> No</p>	<p>29 Answer questions 28-32 ONLY if this person did NOT work last week. Otherwise, SKIP to question 33.</p> <p>a. LAST WEEK, was this person on layoff from a job?</p> <p><input type="checkbox"/> Yes → SKIP to question 29c <input type="checkbox"/> No</p> <p>b. LAST WEEK, was this person TEMPORARILY absent from a job or business?</p> <p><input type="checkbox"/> Yes, on vacation, temporary illness, labor dispute, etc. → SKIP to question 32 <input type="checkbox"/> No → SKIP to question 30</p> <p>c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?</p> <p><input type="checkbox"/> Yes → SKIP to question 31 <input type="checkbox"/> No</p>	<p>29 Answer questions 34 - 37 if this person did NOT work last week. Otherwise, SKIP to question 38a.</p> <p>a. LAST WEEK, was this person on layoff from a job?</p> <p><input type="checkbox"/> Yes → SKIP to question 34c <input type="checkbox"/> No</p> <p>b. LAST WEEK, was this person TEMPORARILY absent from a job or business?</p> <p><input type="checkbox"/> Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc. → SKIP to question 37 <input type="checkbox"/> No → SKIP to question 35</p> <p>c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?</p> <p><input type="checkbox"/> Yes → SKIP to question 38 <input type="checkbox"/> No</p>	<p>35 Answer questions 35 - 38 if this person did NOT work last week. Otherwise, SKIP to question 39a.</p> <p>a. LAST WEEK, was this person on layoff from a job?</p> <p><input type="checkbox"/> Yes → SKIP to question 35c <input type="checkbox"/> No</p> <p>b. LAST WEEK, was this person TEMPORARILY absent from a job or business?</p> <p><input type="checkbox"/> Yes, on vacation, temporary illness, maternity leave, other family/personal reasons, bad weather, etc. → SKIP to question 38 <input type="checkbox"/> No → SKIP to question 36</p> <p>c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?</p> <p><input type="checkbox"/> Yes → SKIP to question 37 <input type="checkbox"/> No</p>	<p>✓ Description of Changes from 2008 to 2009</p> <p>✓ Skip instruction J to K.</p> <p>✓ Question number changed from 34 to 35.</p>
<p>30 Has this person been looking for work during the last 4 weeks?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 32</p>	<p>30 Has this person been looking for work during the last 4 weeks?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 32</p>	<p>36 During the LAST 4 WEEKS, has this person been ACTIVELY looking for work?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 37</p>	<p>36 During the LAST 4 WEEKS, has this person been ACTIVELY looking for work?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to question 38</p>	<p>✓ Question number changed from 35 to 36.</p>
<p>31 LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?</p> <p><input type="checkbox"/> Yes, could have gone to work. <input type="checkbox"/> No, because of own temporary illness. <input type="checkbox"/> No, because of all other reasons (in school, etc.)</p>	<p>31 LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?</p> <p><input type="checkbox"/> Yes, could have gone to work. <input type="checkbox"/> No, because of own temporary illness. <input type="checkbox"/> No, because of all other reasons (in school, etc.)</p>	<p>36 LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?</p> <p><input type="checkbox"/> Yes, could have gone to work. <input type="checkbox"/> No, because of own temporary illness. <input type="checkbox"/> No, because of all other reasons (in school, etc.)</p>	<p>37 LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?</p> <p><input type="checkbox"/> Yes, could have gone to work. <input type="checkbox"/> No, because of own temporary illness. <input type="checkbox"/> No, because of all other reasons (in school, etc.)</p>	<p>✓ Question number changed from 36 to 37.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes
<p>32 When did this person last work, even for a few days?</p> <p><input type="checkbox"/> Within the past 12 months</p> <p><input type="checkbox"/> 1 to 5 years ago → SKIP to question 35</p> <p><input type="checkbox"/> Over 5 years ago or never worked → SKIP to question 47</p>	<p>32 When did this person last work, even for a few days?</p> <p><input type="checkbox"/> Within the past 12 months</p> <p><input type="checkbox"/> 1 to 5 years ago → SKIP to question 35</p> <p><input type="checkbox"/> Over 5 years ago or never worked → SKIP to question 47</p>	<p>37 When did this person last work, even for a few days?</p> <p><input type="checkbox"/> Within the past 12 months</p> <p><input type="checkbox"/> 1 to 5 years ago → SKIP to K</p> <p><input type="checkbox"/> Over 5 years ago or never worked → SKIP to question 46</p>	<p>39 When did this person last work, even for a few days?</p> <p><input type="checkbox"/> Within the past 12 months</p> <p><input type="checkbox"/> 1 to 5 years ago → SKIP to L</p> <p><input type="checkbox"/> Over 5 years ago or never worked → SKIP to question 47</p>	<p>✓ Description of Changes from 2008 to 2009</p> <p>✓ Question number changed from 37 to 39.</p>
<p>33 During the PAST 12 MONTHS, how many WEEKS did this person work? Count paid vacation, paid sick leave, and military service.</p> <p>Weeks <input type="text"/></p>	<p>33 During the PAST 12 MONTHS, how many WEEKS did this person work? Count paid vacation, paid sick leave, and military service.</p> <p>Weeks <input type="text"/></p>	<p>38 a. During the PAST 13 MONTHS (52 weeks), did this person work 50 or more weeks? Count paid time off as work.</p> <p><input type="checkbox"/> Yes → SKIP to question 39</p> <p><input type="checkbox"/> No</p> <p>b. How many weeks DID this person work, even for a few hours, including paid vacation, paid sick leave, and military service?</p> <p><input type="checkbox"/> 50 to 52 weeks</p> <p><input type="checkbox"/> 48 to 49 weeks</p> <p><input type="checkbox"/> 40 to 47 weeks</p> <p><input type="checkbox"/> 27 to 39 weeks</p> <p><input type="checkbox"/> 14 to 26 weeks</p> <p><input type="checkbox"/> 13 weeks or less</p>	<p>39 a. During the PAST 12 MONTHS (52 weeks), did this person work 50 or more weeks? Count paid time off as work.</p> <p><input type="checkbox"/> Yes → SKIP to question 40</p> <p><input type="checkbox"/> No</p> <p>b. How many weeks DID this person work, even for a few hours, including paid vacation, paid sick leave, and military service?</p> <p><input type="checkbox"/> 50 to 52 weeks</p> <p><input type="checkbox"/> 48 to 49 weeks</p> <p><input type="checkbox"/> 40 to 47 weeks</p> <p><input type="checkbox"/> 27 to 39 weeks</p> <p><input type="checkbox"/> 14 to 26 weeks</p> <p><input type="checkbox"/> 13 weeks or less</p>	<p>✓ Question number changed from 38 to 39.</p>
<p>34 During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did this person usually work each WEEK?</p> <p>Usual hours worked each WEEK <input type="text"/></p>	<p>34 During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did this person usually work each WEEK?</p> <p>Usual hours worked each WEEK <input type="text"/></p>	<p>39 During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did this person usually work each WEEK?</p> <p>Usual hours worked each WEEK <input type="text"/></p>	<p>40 During the PAST 12 MONTHS, in the WEEKS WORKED, how many hours did this person usually work each WEEK?</p> <p>Usual hours worked each WEEK <input type="text"/></p>	<p>✓ Question number changed from 39 to 40.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>K Answer questions 35-40 ONLY if this person worked in the past 5 years. Otherwise, SKIP to question 41.</p> <p>35-40 CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business.</p> <p>Was this person -</p> <p>Mark (X) ONE box.</p> <p><input type="checkbox"/> an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary,</p> <p><input type="checkbox"/> an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?</p> <p><input type="checkbox"/> a local GOVERNMENT employee (city, county, etc.)?</p> <p><input type="checkbox"/> a state GOVERNMENT employee?</p> <p><input type="checkbox"/> a Federal GOVERNMENT employee?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> working WITHOUT PAY in family business or farm?</p>	<p>K Answer questions 35-40 ONLY if this person worked in the past 5 years. Otherwise, SKIP to question 41.</p> <p>35-40 CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business.</p> <p>Was this person -</p> <p>Mark (X) ONE box.</p> <p><input type="checkbox"/> an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?</p> <p><input type="checkbox"/> an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?</p> <p><input type="checkbox"/> a local GOVERNMENT employee (city, county, etc.)?</p> <p><input type="checkbox"/> a state GOVERNMENT employee?</p> <p><input type="checkbox"/> a Federal GOVERNMENT employee?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> working WITHOUT PAY in family business or farm?</p>	<p>K Answer questions 40 - 45 if this person worked in the past 5 years. Otherwise, SKIP to question 46.</p> <p>40 - 45 CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business.</p> <p>Was this person -</p> <p>Mark (X) ONE box.</p> <p><input type="checkbox"/> an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?</p> <p><input type="checkbox"/> an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?</p> <p><input type="checkbox"/> a local GOVERNMENT employee (city, county, etc.)?</p> <p><input type="checkbox"/> a state GOVERNMENT employee?</p> <p><input type="checkbox"/> a Federal GOVERNMENT employee?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> working WITHOUT PAY in family business or farm?</p>	<p>L Answer questions 41 - 46 if this person worked in the past 5 years. Otherwise, SKIP to question 47.</p> <p>41 - 46 CURRENT OR MOST RECENT JOB ACTIVITY. Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give information for his/her last job or business.</p> <p>Was this person -</p> <p>Mark (X) ONE box.</p> <p><input type="checkbox"/> an employee of a PRIVATE FOR-PROFIT company or business, or of an individual, for wages, salary, or commissions?</p> <p><input type="checkbox"/> an employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization?</p> <p><input type="checkbox"/> a local GOVERNMENT employee (city, county, etc.)?</p> <p><input type="checkbox"/> a state GOVERNMENT employee?</p> <p><input type="checkbox"/> a Federal GOVERNMENT employee?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm?</p> <p><input type="checkbox"/> working WITHOUT PAY in family business or farm?</p>	<p>✓ Skip instruction designer for changed from K to L.</p> <p>✓ Question number changed from 40 to 41.</p>
<p>35 For whom did this person work? If now on active duty in the Armed Forces, mark (X) this box - <input type="checkbox"/> and print the branch of the Armed Forces. Name of company, business, or other employer</p>	<p>35 For whom did this person work? If now on active duty in the Armed Forces, mark (X) this box - <input type="checkbox"/> and print the branch of the Armed Forces. Name of company, business, or other employer</p>	<p>41 For whom did this person work? If now on active duty in the Armed Forces, mark (X) this box - <input type="checkbox"/> and print the branch of the Armed Forces. Name of company, business, or other employer</p>	<p>42 For whom did this person work? If now on active duty in the Armed Forces, mark (X) this box - <input type="checkbox"/> and print the branch of the Armed Forces. Name of company, business, or other employer</p>	<p>✓ Question number changed from 41 to 42.</p>
<p>37 What kind of business or industry was this? Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)</p>	<p>37 What kind of business or industry was this? Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)</p>	<p>42 What kind of business or industry was this? Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)</p>	<p>43 What kind of business or industry was this? Describe the activity at the location where employed. (For example: hospital, newspaper publishing, mail order house, auto engine manufacturing, bank)</p>	<p>✓ Question number changed from 42 to 43.</p>

2005 and 2006 Content		2007 Content		2008 Content		2009 Content		Description of Changes
<p>38 Is this mainly - Mark (X) one box.</p> <p><input type="checkbox"/> manufacturing?</p> <p><input type="checkbox"/> wholesale trader?</p> <p><input type="checkbox"/> retail trader?</p> <p><input type="checkbox"/> other (agriculture, construction, service, government, etc.)?</p>	<p>39 What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)</p> <p>_____</p>	<p>38 Is this mainly - Mark (X) one box.</p> <p><input type="checkbox"/> manufacturing?</p> <p><input type="checkbox"/> wholesale trader?</p> <p><input type="checkbox"/> retail trader?</p> <p><input type="checkbox"/> other (agriculture, construction, service, government, etc.)?</p>	<p>39 What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)</p> <p>_____</p>	<p>43 Is this mainly - Mark (X) one box.</p> <p><input type="checkbox"/> manufacturing?</p> <p><input type="checkbox"/> wholesale trader?</p> <p><input type="checkbox"/> retail trader?</p> <p><input type="checkbox"/> other (agriculture, construction, service, government, etc.)?</p>	<p>44 What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)</p> <p>_____</p>	<p>44 Is this mainly - Mark (X) ONE box.</p> <p><input type="checkbox"/> manufacturing?</p> <p><input type="checkbox"/> wholesale trader?</p> <p><input type="checkbox"/> retail trader?</p> <p><input type="checkbox"/> other (agriculture, construction, service, government, etc.)?</p>	<p>45 What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, secretary, accountant)</p> <p>_____</p>	<p>✓ Description of Changes From 2008 to 2009</p> <p>Question number changed from 43 to 44.</p> <p>Question number changed from 44 to 45.</p>
<p>40 What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records)</p> <p>_____</p>	<p>40 What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records)</p> <p>_____</p>	<p>45 What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records)</p> <p>_____</p>	<p>46 What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, typing and filing, reconciling financial records)</p> <p>_____</p>					<p>✓ Question number changed from 45 to 46.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>41 INCOME IN THE PAST 12 MONTHS.</p> <p>Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The past 12 months is the period from today's date one year ago up through today.)</p> <p>Mark (X) the "No" box to show types of income NOT received.</p> <p>If net income was a loss, mark the "Loss" box to the right of the dollar amount.</p> <p>For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.</p> <p>a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>Loss <input type="checkbox"/></p>	<p>41 INCOME IN THE PAST 12 MONTHS.</p> <p>Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The past 12 months is the period from today's date one year ago up through today.)</p> <p>Mark (X) the "No" box to show types of income NOT received.</p> <p>If net income was a loss, mark the "Loss" box to the right of the dollar amount.</p> <p>For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.</p> <p>a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 MONTHS <input type="checkbox"/> No</p> <p>Loss <input type="checkbox"/></p>	<p>49 INCOME IN THE PAST 12 MONTHS.</p> <p>Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The past 12 months is the period from today's date one year ago up through today.)</p> <p>Mark (X) the "No" box to show types of income NOT received.</p> <p>If net income was a loss, mark the "Loss" box to the right of the dollar amount.</p> <p>For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.</p> <p>a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>Loss <input type="checkbox"/></p>	<p>47 INCOME IN THE PAST 12 MONTHS.</p> <p>Mark (X) the "Yes" box for each type of income this person received, and give your best estimate of the TOTAL AMOUNT during the PAST 12 MONTHS. (NOTE: The past 12 months is the period from today's date one year ago up through today.)</p> <p>Mark (X) the "No" box to show types of income NOT received.</p> <p>If net income was a loss, mark the "Loss" box to the right of the dollar amount.</p> <p>For income received jointly, report the appropriate share for each person - or, if that's not possible, report the whole amount for only one person and mark the "No" box for the other person.</p> <p>a. Wages, salary, commissions, bonuses, or tips from all jobs. Report amount before deductions for taxes, bonds, dues, or other items.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships. Report NET income after business expenses.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>c. Interest, dividends, net rental income, royalty income, or income from estates and trusts. Report even small amounts credited to an account.</p> <p><input type="checkbox"/> Yes → \$ TOTAL AMOUNT for past 12 months <input type="checkbox"/> No</p> <p>Loss <input type="checkbox"/></p>	<p>Description of Changes from 2008 to 2009</p> <p>✓ Question number changed from 46 to 47.</p>

2005 and 2006 Content	2007 Content	2008 Content	2009 Content	Description of Changes from 2008 to 2009
<p>42 What was this person's total income during the PAST 12 MONTHS? Add entries in questions 41a to 41f; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.</p> <p>None OR \$ <input type="text" value="00"/> <input type="checkbox"/> Loss</p> <p>TOTAL AMOUNT for past 12 MONTHS</p>	<p>42 What was this person's total income during the PAST 12 MONTHS? Add entries in questions 41a to 41f; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.</p> <p>None OR \$ <input type="text" value="00"/> <input type="checkbox"/> Loss</p> <p>TOTAL AMOUNT for past 12 MONTHS</p>	<p>47 What was this person's total income during the PAST 12 MONTHS? Add entries in questions 45a to 45f; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.</p> <p>None OR \$ <input type="text" value="00"/> <input type="checkbox"/> Loss</p> <p>TOTAL AMOUNT for past 12 months</p>	<p>48 What was this person's total income during the PAST 12 MONTHS? Add entries in questions 46a to 46f; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.</p> <p>None OR \$ <input type="text" value="00"/> <input type="checkbox"/> Loss</p> <p>TOTAL AMOUNT for past 12 months</p>	<p>✓ Question number changed from 47 to 48.</p>
<p>Continue with the questions for Person 2 on the next page. If you are a U.S. Resident, skip to page 24 for mailing instructions.</p>	<p>Continue with the questions for Person 2 on the next page. If you are a U.S. Resident, skip to page 24 for mailing instructions.</p>	<p>Continue with the questions for Person 2 on the next page. If you are a U.S. Resident, skip to page 28 for mailing instructions.</p>	<p>Continue with the questions for Person 2 on the next page. If you are a U.S. Resident, skip to page 28 for mailing instructions.</p>	<p>Unchanged</p>